IC-85 REINSURANCE MANAGEMENT

REINSURANCE MANAGEMENT

ACKNOWLEDGEMENT

This course based on new syllabus has been prepared with the assistance of K. Ramachandran
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We also acknowledge Get Through Guides, Pune for their contribution in preparing the study material.

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PREFACE

This course is designed for candidates appearing for the Fellowship examination of Insurance Institute of India.

The course is revised and rewritten keeping in mind the dynamism and contemporary developments within the domestic and the international insurance and reinsurance markets. Aimed at maintaining relevance with newly emerging concepts, trends and practices at the market place, the contents of the course exhaustively deals with emerging ideas in respect of reinsurance markets, financial security, alternatives to reinsurance and information processing for reinsurance decisions.

GIC’s prominence as the statutory Indian National Insurer and its growing strength in the international scenario has been highlighted along with information on other upcoming markets.

The course is rewritten in line within the revised syllabus and readers would find the contents meaningful in better understanding as well as gaining knowledge of the subject. The course should also prove useful not only to those appearing for the fellowship examination, but also to the general reader interested in the subject.

Although the course gives detailed knowledge of the subject, it is recommended that the candidates should read additional literature on the subject.
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CHAPTER 1
INTRODUCTION

Chapter Introduction

Reinsurance provides financial stability to insurance companies by increasing their solvency. Though some aspects of reinsurance business are quite similar to insurance, reinsurance is a more complex process.

In this chapter, we will learn about the concept and nature of reinsurance. We will also have a brief look at the history and functions of reinsurance.

Learning Outcomes

A. Nature of reinsurance
B. Historical background
C. Functions of reinsurance
A. Nature of Reinsurance

1. Nature of reinsurance:

   a) Law of Large Numbers

   The economic basis of insurance is that the occurrence of loss affects a fraction of a large population. The larger the population of insured assets or persons or interests, the accuracy of probability of loss keeps improving.

   It is the probability theory that enables the insurer to cope with variations in the pattern of actual losses. Underwriters and actuaries may also consider various measures of dispersion, that is the difference between the actual losses and average losses, when setting premiums or assessing liabilities.

   Insurance companies have to be prepared to accept the risk associated with various scenarios such as:

   i. Catastrophes like earthquake, tsunami or
   ii. Accumulation of many losses or
   iii. Simple lack of financial capacity

   In each of the above scenarios the insurers, however, will be unwilling or unable to go back to their policyholders for additional payment if losses turn out to be greater than expected.

   They must rely on a cushion of working capital (provided by the shareholders) to meet such losses. One of the main aims of insurance regulators is to ensure that insurers always have a sufficient margin of assets over estimated liabilities appropriate to the business that they conduct.

   The above brings out the crucial role of reinsurance in addressing the limitations to the law of large numbers, preserving the income from investment and insulating shareholders’ funds from unpredictable loss scenarios.

   b) Contract of Indemnity

   Reinsurance is always a contract of indemnity, even in life and personal accident insurance, because it protects the insurer from a diminution of his property, caused by insurance policy obligations.
2. Factors which influence the results of reinsurance

Professor Prolss of Swiss Re gave an excellent analysis of the factors which influence the results of reinsurance. Here is a summary of his analysis:

a) Risks Emanating from the Insured (Original Risk)

This mainly concerns the technical risk, in other words the risk run by granting cover through an insurance policy. There is also a contractual risk, as for example an unjustified, exaggerated or fraudulent claim. These two risks are covered by the reinsurance contract in the “Follow the Fortunes” clause.

b) Risks Emanating from the Insurer or the Reinsurer

Improper business administration (negligence, incapacity) on the part of the insurer can considerably increase the risk run by the reinsurer. Following factors have a direct effect on the results of reinsurance:

i. Deficient underwriting methods,
ii. Excessive generosity in the settlement of claims,
iii. Hasty development of business and inefficient technical attention

Finally, moral hazard inherent in all human undertaking can occur to the detriment of both the insurer and the reinsurer.

c) Risks Beyond the Control of the Contractual Parties

Reinsurers assume no responsibility for rate of exchange risk, despite the fact that it directly affects the result. Depending on the fluctuations in the value of the currencies he is working in, the reinsurer may have to pay larger or smaller sums than those he had foreseen, without the insurer bearing any of the consequences.

Therefore, one of the most important, and most delicate, tasks of the reinsurer is to set up an investment budget which takes into account exchange rate fluctuations, and the task is certainly made no easier by the numerous legal provisions on this subject.

Inflation also deserves mention in this paragraph as it reduces the value of the investments on the one hand and distorts technical statistics on the other, by artificially inflating premiums, losses and costs, thus rendering the statistics either useless or dangerously optimistic on a short-term basis.

Payment of foreign exchange is also subject to risks, mostly due to the monetary situation which can affect both the insurer and the reinsurer. Several countries restrict foreign currency payments, which considerably delays the payment of balances and cash calls.
Very often reinsurance operations are subject to special and most unrealistic exchange controls. In extreme cases, payments to reinsurers are “frozen” for months and this naturally results in loss of interest to the reinsurance markets, a diminution of the cover and, eventually, an increase in rates.

The deposit of technical reserves as security implies monetary investment and administrative risks, particularly if the reinsurer is not absolutely free to use the reserves.

In countries with deficit budgets, reinsurers are particularly exposed to fiscal risks. As is the case with insurance, reinsurance operations are easily controllable by the supervisory authority and tax can be levied on:

i. Ceded premiums,
ii. Commissions,
iii. Profit commissions,
iv. Interest and even on
v. The settlement of losses

In some countries, the reinsurer’s profit, which for simplicity’s sake is calculated by using a fictitious - and very unrealistic- margin, is subject to tax.

d) Risks Inherent to Reinsurance

As the reinsurer must work on as wide a basis as possible and consequently grant cover to as many companies as possible, he runs the risk of accumulation of exposure from any single event or risk. Though, on an important policy, direct participations are easily controlled, it is practically impossible to control indirect commitments from reinsurances as accepted.

The internal and external organization of a reinsurance insurer is of prime importance. The acquisition and underwriting results are directly dependent on its quality. Indeed, several reinsurance companies have suffered considerable setbacks through deficient organization as a result of bad planning, incomplete control or lack of specialist.

e) Uberrima fides - utmost good faith

The relation between the insurer and the reinsurer is based on the principle of “Uberrima fides”, i.e. utmost good faith. Whilst, in facultative reinsurance, the insurer has to provide the reinsurer with all information he needs to evaluate the risk correctly, in automatic (or obligatory) reinsurance the principle of “uberrima fides” is of utmost importance.

The reinsurer gives the insurer automatic underwriting power and therefore renounces any possibility of refusing risks he does not like. For this reason, the cedant must provide the reinsurer with detailed information on his portfolio both during the negotiations preliminary to the conclusion of the treaty and then for the period of its validity.
This trust is extended to the underwriting of risks, the settlement of claims and the determination of retentions and cessions. It is also understood that the insurer will not modify his underwriting policy or the tariffs agreed upon without previous notice.

**Example**

An insurer, reinsured by a quota share, which decides to increase the portfolio of its motor business, despite knowing the tariff to be insufficient, is not abiding by the principle of “uberrima fides”.

**Example**

An insurer systematically underestimating the loss reserves with the object of earning a profit commission or obtaining a more favorable excess of loss quotation.

Whereas insurance is a contract between the insurer and the insured, reinsurance is a separate contract between the insurer and the reinsurer. Each of these contracts is independent of the other.

**f) The Situation in Case of Insolvency of the Ceding Insurer**

To complete this outline of the nature of reinsurance, let us examine the obligations of the reinsurers when the ceding insurer is in financial difficulties or insolvent.

The reinsurer only follows the ceding insurer`s fortunes from a technical point of view, as stipulated in the treaties. The reinsurer only shares the “insurance fate”; in other words, he is not affected by the insurer’s “commercial fate”.

Therefore, if the insureds, in order to help the insurer’s financial recovery, decide to renounce their claim to part of the compensation due to them from the insurer, after a loss, the reinsurer still has to pay his full share of the same loss, as the reinsurer has no legal relationship with the insured.

Consequently, the situation may arise where the reinsurer has to pay his full share of the loss, whilst the insurer pays a partial compensation to his insured. Whatever the situation, the reinsurer has the right to deduct whatever balances are due to him.

**g) Insolvency of the Reinsurer**

The reverse situation occurs when a reinsurer is insolvent. The ceding insurer is fully responsible for the total amount due to the insured, irrespective of the fact that he cannot recover the share of the reinsurer or any part of it.
CHAPTER 1
HISTORICAL BACKGROUND

Test Yourself 1

The relation between the insurer and the reinsurer is based on the principle of______________.

I. Causa proxima
II. Subrogation
III. Uberrima fides
IV. Insurable interest

B. Historical Background

1. History and development of reinsurance

The place of reinsurance within the orbit of the business of insurance is of considerable importance. Reinsurance, as its name implies, has developed from insurance and the extent of its use will depend not only upon the amount but also upon the characteristics of the risks to be underwritten by the direct insurer. It goes without saying that the volume of reinsurance business which can usefully be transacted depends primarily upon the volume of direct business available at any given time. The records of this century would show that the demand for reinsurance followed worldwide expansion in direct business.

The idea of reinsurance is rooted in the same human instinct that brought insurance into being, i.e. the desire that the loss of one shall be shared by many. Just as this leads a common man to insure with an insurer, so the insurer in turn reinsures part of his risks with a reinsurer. It appears that in the very early days, an insurer accepted only those risks which could wholly be handled by him as there is no indication that he had recourse to reinsurance.

a) Marine reinsurance

i. In the history of marine insurance the oldest known reinsurance contract was concluded in 1370 in Genoa.

ii. Much later, reinsurance was indirectly referred to in legal texts, in 1681 in the ordinances of Louis XIV and directly in 1746.

iii. British legislation forbade marine reinsurance, unless the insurer went bankrupt, became insolvent or died and it remained forbidden until 1864.

iv. Though there are early references of marine reinsurance contracts in Europe, the earliest reference to reinsurance in fire insurance business is found in a Royal concession granted to the Royal Chartered Insurance Insurer of Copenhagen in 1778.

v. The first reinsurance contract in fire insurance business was concluded in 1821.
b) Professional reinsurers

Insurers practised both direct underwriting and reinsurance. As a reinsurer the insurer realised that he could establish a certain balance in his portfolio only by spreading his business on a very wide basis and tried to extend his relations to as many countries of the world as possible.

With the increasing demand for cover and keener competition between insurance companies, specialised reinsurance companies, called professional reinsurers, were formed.

i. The Cologne Reinsurance Company was founded in 1846, though they did not start operations until 1852. They are the oldest professional reinsurer still in existence and now merged with Gen Re.

ii. In Switzerland, the first reinsurer to be formed was the Swiss Reinsurance Company, which started business in 1863. The Munich Reinsurance Company was founded in 1880.

iii. Because of the very special position of Lloyd’s of London, England was slow in founding professional reinsurance companies. The Mercantile and General - the first professional reinsurance insurer in England - was established in 1917.

Until the turn of the century, reinsurance was of very little significance in Lloyd’s of London. Underwriters were used to accepting amounts for net account – what they could retain - with the brokers assisting to spread the risk through the Lloyd’s market.

Besides, the fact that Lloyd’s largely transacted marine insurance and therefore suffered from the restrictive legislation of 1746 delayed Lloyd’s entry into the reinsurance field.

Their development from the mid-1880s as a reinsurance market is mainly on account of Cuthbert Heath and the introduction of excess of loss reinsurance, which was an ideal vehicle for the enterprise and entrepreneurial spirit of Lloyd’s underwriters. Reinsurance now represents a significant proportion of the total business written at Lloyd’s.

c) Treaties

Initially, reinsurance business was confined to facultative transactions. Then, in the 19th century, with commercial and industrial progress there was increasing and wide ranging demands for newer and effective forms of cover.
This gave rise to automatic forms of reinsurance known as **treaties**, which have become an indispensable part of an insurer’s operations today.

i. By the time of World War I, proportional treaties became the main vehicle of reinsurance replacing facultative reinsurance which was inflexible, costly to administer and slow to operate.

ii. The invention and technique of excess of loss cover was the most significant development in reinsurance in the past 100 years. This form of reinsurance filled a real gap for property policies which were extended to cover catastrophe hazards.

In 1850, there were already 306 insurance companies in 14 countries. In 1900, this number reached 1,272 in 26 countries, in 1910, 2540 in 29 countries and today more than 10,000 insurance companies are working in over 100 countries and some 2600 agencies can be added to this number.

However, the increase in the number of insurance companies following extraordinary economic development is not the only explanation for the growing importance of reinsurance companies. The cause of this phenomenon must be found in an evolution which started with the industrial revolution, and - far from slowing down - accelerated at a quicker pace.

On the one hand the value at risk increased and on the other, these values became more concentrated.

The creation of new states also proved favourable to the development of reinsurance, for where political and economic independence is achieved, a local insurance market is formed. In general, local companies have a smaller financial base because local investors often prefer more lucrative short-term activities than insurance. Moreover, new markets have a small volume of premium and low retention capacity, that they make extensive use of reinsurance.

Reinsurance is converging with financial markets to meet the complexities of values and aggregation. New products from capital markets have emerged as alternatives to traditional reinsurance products.

2. **Reinsurance in India**

In India, the period from 1951 onwards was marked by a rapid development of insurance business, made possible by large scale economic development.

The increased business all the more required the need for reinsurance protection which of necessity had to be arranged in foreign markets mainly British and Continental. The problem of conserving foreign exchange was acutely felt in India like any other developing country and the government directed reinsurance operations accordingly.
a) Reinsurance before Nationalisation

i. Statutory cessions

In 1956: India Reinsurance Corporation, a professional reinsurance insurer was formed by general insurance companies operating in India and it started receiving voluntary quota share cessions from member companies.

In 1961: The government made it compulsory by statute on the part of every insurer to cede:

- 20% in Fire and Marine Cargo,
- 10% in Marine Hull and Miscellaneous insurance (other than Credit and Solvency) and
- 5% in Credit and Solvency business

To approved Indian reinsurers, namely:

- India Reinsurance Corporation,
- Indian Guarantee and General Insurance Company

The said percentages were to be allocated equally between the two reinsurers.

ii. Pools

In 1966: Indian Insurance Companies Association initiated the formation of Reinsurance Pools in Fire and Hull to increase the retained premiums in the country.

As per the Pool Schemes, specified percentages were required to be ceded by member companies to the respective Pools, which were managed by the two statutory reinsurers, namely:

- India Reinsurance Corporation,
- Indian Guarantee and General Insurance Company

The companies were given shares by way of retrocession in the pooled business protected by excess of loss covers.

b) Reinsurance after Nationalisation

i. In 1971: At the time of nationalisation of general insurance business in 1971, there were 63 domestic insurers and 44 foreign insurers operating in the country and each insurer had its own reinsurance arrangements.
ii. In 1973: The above companies were reconstituted into four companies, namely:

- National Insurance Co. Ltd.,
- The New India Assurance Co. Ltd.,
- The Oriental Fire and General Insurance Co. Ltd. (now known as Oriental Insurance Insurer Ltd.) and
- United India Fire and General Insurance Co. Ltd. (now known as United India Insurance Insurer Ltd.)

These four companies were thus left to operate in the country as subsidiaries of a holding insurer known as General Insurance Corporation of India (GIC) formed under the General Insurance Business (Nationalisation) Act, 1972.

c) Post Nationalisation

Post nationalisation, GIC became the Indian reinsurer and the outward reinsurance arrangements of the Indian insurance companies were rearranged.

The main objectives were to maximise aggregate domestic retention, to use the large premium base of the domestic market to secure best terms consistent with the quality of business ceded out of the country and to minimize the drain of foreign exchange.

The market Reinsurance Programme aimed for increased net retentions. This was designed by the GIC and approved by the government each year. However the increased growth of project insurances and aviation resulted in increased need to reinsure, particularly on facultative basis. Oil, satellites and financial risks have always been reinsured in the range of 90% or more. The average market retention for other risks was in the range of 90%.

Each of the four subsidiary companies handled its reinsurance cessions from its head office. In certain lines the companies matched their treaty cessions [automatic reinsurance] to reciprocal inward acceptance of reinsurance [fire, marine hull, etc.]

GIC handled all non-reciprocal inwards into India through a division styled SWIFT, on behalf of itself and the four companies.

SWIFT is an acronym for “Single Window International Facultative and Treaty” and was exclusive in the entire Indian market. It wrote US$65 million in reinsurance premium.

It offered an attractive capacity of US $5 million on sum insured basis and US $2 million on Probable Maximum Loss (PML) basis. It maintained a hard currency account in London to expedite quick settlement of claims. SWIFT was an ‘A’ rated security by Standard and Poor.
d) **Reinsurance after Liberalisation**

i. As a part of the process of liberalisation of the insurance industry in India, the Insurance Regulatory & Development Authority (IRDA) is vested with the authority of regulating and controlling the conduct of insurance business in India.

IRDA frames rules and regulations for various aspects of the insurance business including reinsurance. The current regulations relevant to reinsurance are attached as an appendices at the end of this course.

ii. The four subsidiaries viz. National, New India, Oriental & United India, have been demerged from GIC and private insurance companies have been allowed to do insurance business after obtaining license from IRDA.

iii. Each insurer in India is free to structure his annual reinsurance programme in compliance with regulations and solvency requirements.

iv. The programme needs to be approved by the IRDA and is subject to monitoring for placements with no one reinsurer rated as per regulations, receiving cessions equal to or not exceeding 10% of all premium ceded overseas, subject to a maximum of 20%.

v. One of the key goals of regulations is to assist the Indian market retain maximum premium prior to reinsuring overseas. In this regard the role of GIC Re is significant as a source of treaty reinsurance support.

vi. Each insurer, including the life insurers, can define his inward reinsurance underwriting philosophy and with due approval of the same from the IRDA write inward reinsurance. This is another distinctive development following liberalisation.

e) **GIC Re**

i. GIC Re became the sole statutory reinsurer for the Indian market. As a reinsurance insurer GIC Re is governed by IRDA regulations.

ii. An important outcome following liberalisation and demerger is the reorientation of GIC Re from being a traditional regional reinsurer to a global reinsurer. GIC Re writes increasing inward reinsurance from overseas markets.

iii. GIC Re is expanding its overseas branch operations and sourcing inward reinsurance in London and Dubai and other offices being set up to expand business. The target is to balance the share of domestic and business.

iv. GIC Re is ranked within the top 20 reinsurers and rated ‘A-‘ by A.M.Best. GIC Re has retained this rating consecutively since liberalization.
v. GIC Re is also entrusted with responsibility to manage and administer Pools for the Indian market. As of 2010 the GIC Re is entrusted to manage and administer:
✓ Indian Motor Third Party Declined Pool
✓ Indian Terrorism Insurance Pool
✓ Indian Marine Hull Insurance Pool

Under the direction of the Government of India, the Indian market is pursuing to establish:
✓ Natural Catastrophe Pool
✓ Nuclear Risks Liability Pool

GIC Re is designated manager for the above pools also.

GIC Re has developed in collaboration with expert firms modeling software to determine aggregate loss exposures arising from Earthquake and Windstorm.

vi. As per regulations, GIC Re receives 5% obligatory (statutory) cession from all general insurers on all classes of business underwritten by them. There are caps on cessions of risks with higher limits. In respect of terrorism risk all 100% is ceded to the Market Pool and there is no obligatory cession. In respect of life insurers IRDA is authorized to notify the percentage to be ceded (2013).

vii. IRDA’s notification sets out minimum ceding commission with any higher percentage left to be mutually agreed between the insurer and GIC Re.

viii. GIC Re is a composite reinsurer and also handles life reinsurance.

ix. GIC Re is protected for its own retention through Risk and Catastrophe Excess of Loss reinsurance programmes. Further, GIC Re has a long term umbrella excess cover via ART (Alternative Risk Transfer).

x. GIC Re provides to lead the Indian market into developing India into a major hub of insurance and reinsurance in Asia and a global reinsurer to the world market.

f) Regional Co-operation

A significant development in the field of international reinsurance and regional co-operation is the formation of regional reinsurance corporations in the 1970s.

Example

a) Asian Reinsurance Corporation
b) African Reinsurance Corporation
India is a member of the Asian Reinsurance Corporation. The objective of such corporations is to endeavour to reduce the drain on foreign exchange resources resulting from the reinsurances of local companies being ceded to foreign companies and to promote local expertise. The Federation of Afro-Asian Insurers and Reinsurers (FAIR) endeavours to promote similar objectives within the third world insurance markets in Asia and Africa.

**Test Yourself 2**

Which of the following companies became Indian reinsurer after nationalisation?

I. GIC  
II. National Insurance Co. Ltd  
III. The New India Assurance Co Ltd  
IV. The Oriental Fire and General Insurance Co. Ltd.

**C. Functions of reinsurance**

1. **Key objectives**

   Basically, the key objectives of an insurer in arranging reinsurance are:

   a) Increasing his capacity to handle larger risks by passing to the reinsurer that part of the exposure which he would not normally bear, because of constraints of financial capacity,

   b) Enhancing ability to accept larger lines than his capital allows,

   c) Stabilising his operating results from year to year with the reinsurer absorbing larger claims or catastrophe losses,

   d) Increasing the chances of making a profit by reinforcing the underwriter’s attempts to establish an account which is homogeneous in both size and quality of risk

   e) Ability to write untested and new risk exposures

2. **Functions of reinsurance**

   In the light of the above, functions of reinsurance can be considered as providing following services to protect the reinsured:

   a) **Increased Capacity**

   The risks covered by insurers in the very early days were much simpler in nature and insurers restricted their acceptances corresponding to their financial capacity. What further developed was the concept of co-insurance whereby one insurer shares direct responsibility for a risk with one or more insurers participating as co-insurers; each insurer’s responsibility being restricted to the amount he underwrites on the original policy.
However, this concept proved inadequate to cater to the needs and demands put on insurance to cover risks of complex nature, high value and concentration. Reinsurance provided the insurer with the extra capacity required to accept such risks and enabled him to handle large loss events.

b) Financial Stability

Prudence requires that an insurer manages and regulates his affairs in such a manner that no nasty surprises by way of large losses endanger his financial stability. Such large losses can occur on high value insurances of property/persons/profits/liabilities. Equally a single event can be capable of producing a claim or series of claims of very high magnitude through accumulation. Reinsurance provides the financial stability to insurers in such eventualities by paying the reinsured portion of the loss.

In addition to the reinsurance arranged on individual risks, the insurer would also require to supplement this protection to limit his loss arising out of a single event causing loss or damage to many risks. Such protection is of particular importance for natural perils such as Flood, Earthquake or Cyclone.

c) Stabilisation of Claims Ratio

The fundamental principle of insurance is spreading of risk based on the law of large numbers. However, an insurer’s portfolio cannot be large enough to take full advantage of the law of large numbers. A major fluctuation in claims costs can seriously undermine the financial structure of an insurance insurer. Such fluctuations are caused by:

i. Inadequate spread of risks,
ii. Unexpected weather conditions,
iii. Social/economic developments resulting in higher third party/riot/theft/terrorism claims and
iv. New technology risks of unproven nature.

In the absence of reinsurance, such fluctuations may call for untimely increase in the premium rates for direct business which can affect the overall business underwritten. Reinsurance absorbs the impact of such fluctuations, allows the insurer to achieve a premium spread over several years and be seen in the eyes of his insured as financially stable.

d) Accumulation of Claims under Different Classes

Many single events can give rise to an accumulation of losses affecting different classes of insurance (accumulation in branches). By arranging an excess of loss reinsurance protection which operates when claims have occurred under several lines of business as a result of the same event, the insurer can limit his total aggregate commitment from all underwriting lines and protect his net underwriting result.
e) Spread of Risks

The basic principle of spread of risks aims to ensure that result in any class of business is balanced and results are also balanced by geographical spread. Reinsurance achieves a wider spread of risks by writing business in many countries across many classes.

f) Protection of Solvency Margins

In some countries, government regulations limit the net retained premium income of insurance companies in relation to their capital and free reserves. An insurer should also make a sufficient profit to be able to pay a reasonable dividend and to retain a sufficient amount to increase the financial reserve to support increasing assumption of risks.

If this cannot be done, the solvency ratios can vary adversely and attract the government’s / regulator’s intervention. A well planned reinsurance programme can ensure long term profitability as well as compliance of solvency norms.

g) Stabilise Profitability

Reinsurance gives to the insurer a far greater flexibility in the size and types of risks he can accept. This increases the insurer’s ability to compete for business and helps him to spread overheads over a larger volume of business, control his expense ratio and stabilize his profitability.

h) Other Functions

i. Reinsurance enables an insurer to consider unusual proposals which he normally would not underwrite.

ii. Reinsurers may provide to the insurer the benefit of their expertise on Technical, Rating and Underwriting, Actuarial, Reserving, Claims handling and many other aspects relating to prudent writing of the direct business.

iii. Reinsurance helps to absorb newer risk exposures arising from:

✓ Economic changes
✓ Social changes
✓ Changes in insurance methods
✓ Changes caused by scientific development.

iv. Reinsurance provides a means of communication between the reinsurers and insurers of different markets and frequently acts as a catalyst by:

✓ Propagating new forms of insurance,
✓ Communicating international experience,
✓ Suggesting technical restrictions.
Dr. F.L. Tuma, a noted expert on reinsurance, once expressed the function of reinsurance by drawing analogy with a shock absorber. He wrote:

“The purpose of Reinsurance is purely technical. It is a means which an insurance insurer uses to reduce, from the point of view of possible material losses, the perils which it has accepted.

When a carriage fitted with a shock absorber passes over a rough street, the road becomes no smoother, but the passenger will feel the jerks less as these are absorbed by the contrivance carried as a special addition to the vehicle. So it is with Reinsurance; it does not reduce losses but it makes it easier for insurance to carry the material consequences.”

3. Advantages of Reinsurance

The advantages of the protection afforded by reinsurance can be summarized as under:

a) An insurer has more capacity to accept though he needs to restrict exposure to a level commensurate with his own net resources.

b) The net premiums and losses are stabilized over a shorter period of time.

c) the incidence of loss is widely distributed

d) The problem of accumulations within each line of business and between different lines is controlled.

e) an insurer can accept new and untested risk exposures with reinsurance support

Test Yourself 3

Which of the following is incorrect with respect to advantages of reinsurance?

I. The net premiums and losses are stabilised over a shorter period of time
II. An insurer cannot accept new and untested risk exposures with reinsurance
III. The incidence of loss gets widely distributed
IV. The problem of accumulation within each line of business and between different lines is controlled.
Summary

a) Reinsurance is the insurance of the risk assumed by the insurer.

b) Reinsurance is always a contract of indemnity, even in life and personal accident insurance, because it protects the insurer from a diminution of his property, caused by insurance policy obligations.

c) Reinsurance is a separate contract between the insurer and the reinsurer. Each of these contracts is independent of the other.

d) The relation between the insurer and the reinsurer is based on the principle of “Uberrima fides”, i.e. utmost good faith.

e) The reinsurer only shares the “insurance fate” in other words; he is not affected by the insurer’s “commercial fate”.

f) The first reinsurance contract in fire insurance business was concluded in 1821.

g) Post nationalisation, GIC became the Indian reinsurer. GIC handled all non-reciprocal inwards into India through a division styled SWIFT, on behalf of itself and the four companies.

**SWIFT** is an acronym for “Single Window International Facultative and Treaty” and was exclusive in the entire Indian market.
Answers to Test Yourself

Answer 1

The correct option is III.

The relation between the insurer and the reinsurer is based on the principle of Uberrima fides.

Answer 2

The correct option is I.

GIC became Indian reinsurer after nationalisation.

Answer 3

The correct option is II.

An insurer can accept new and untested risk exposures with reinsurance.

Self-Examination Questions

Question 1

Reinsurance is a contract between_________ and_________.

I. Insurer and insured
II. Insured and Underwriter
III. Underwriter and reinsurer
IV. Insurer and reinsurer

Question 2

What is the obligation of a reinsurer when the ceding insurer is in financial difficulties or is insolvent?

I. Reinsurer shares commercial fate, hence reinsurer will have to pay his full share of the same loss
II. Reinsurer shares insurance fate, hence reinsurer will have to pay his full share of the same loss
III. Reinsurer shares insurance fate, hence reinsurer will not have to pay his share of the same loss
IV. Reinsurer shares commercial fate, hence reinsurer will not have to pay his full share of the same loss
Question 3

In 1966, the Indian Insurance Companies Association initiated the formation of Reinsurance Pools in _______ to increase the retained premiums in the country.

I. Marine
II. Fire and Hull
III. Vehicle
IV. Health

Question 4

SWIFT is an acronym for ____________

I. Single Window International Facultative and Treaty
II. Single Window Indian Facultative and Treaty
III. Single Window International Facility and Treaty
IV. Single Window Indian Facility and Treaty

Question 5

The first reinsurance contract in fire insurance business was concluded in ________.

I. 1821
II. 1853
III. 1863
IV. 1880

Answers to Self-Examination Questions

Answer 1

The correct option is IV.

Reinsurance is a contact between insurer and reinsurer.

Answer 2

The correct option is II.

In case the ceding insurer is in financial difficulties or is insolvent, the reinsurer shares insurance fate, hence reinsurer will have to pay his full share of the same loss.
Answer 3

The correct option is II.

In 1966, the Indian Insurance Companies Association initiated the formation of Reinsurance Pools in fire and hull to increase the retained premiums in the country.

Answer 4

The correct option is I.

SWIFT is an acronym for Single Window International Facultative and Treaty.

Answer 5

The correct option is I.

The first reinsurance contract in fire insurance business was concluded in 1821.
CHAPTER 2
FORMS OF REINSURANCE

Chapter Introduction

There are mainly two kinds of reinsurance contracts: facultative and treaty. In this chapter we will learn about both facultative and treaty methods of reinsurance contracts. We will also discuss the facultative obligatory treaty method in brief, which is a combination of facultative and treaty reinsurance methods.

Learning Outcomes

A. Forms of Reinsurance  
B. Facultative Reinsurance  
C. Treaty Reinsurance  
D. Facultative Obligatory Treaty
A. Forms of reinsurance

Introduction

There are only two ways a reinsurance contract can be arranged. It can be either:
   a) One-off for a single policy: Facultative reinsurance
   b) Automatic for a defined group of policies: Treaty reinsurance

Based on needs of business an insurer determines and negotiates with reinsurer/s terms, conditions and rates for reinsurance protection. This crystallises as a reinsurance contract.

Under a reinsurance contract, an insurer is indemnified for losses occurring on its insurance policies covered by the reinsurance contract. While there are no standard contracts, treaty and facultative contracts are the two types that are used and adapted to meet individual insurers’ on-going reinsurance requirements.

The following table gives an overview of forms of reinsurance in combination with methods:

Diagram 1: Forms of reinsurance

Test Yourself 1

Which of the following is a type of reinsurance contract?

I. Facilitative reinsurance
II. Entreaty reinsurance
III. Facultative reinsurance
IV. Treated reinsurance
# Facultative Reinsurance

## Definition

Facultative reinsurance is defined as “a reinsurance contract under which the ceding insurer has the option to cede and the reinsurer has the option to accept a specific risk of a specific insured”.

Facultative reinsurance may be transacted on:
- a) Proportional or
- b) Non-proportional basis.

When reinsuring facultatively the insurer obtains reinsurance coverage before accepting to insure a client. This is done for two reasons:

- a) to ensure that the reinsurance terms do not exceed those applying to the direct insurance; and
- b) to back up the judgment of the original underwriter at the insurer’s office who will often benefit from the reinsurer’s knowledge of a particular risk or class or risk.

Originally all reinsurances were transacted facultatively but because of high administrative costs this method has been largely replaced over time by treaty reinsurance.

However, its flexibility has resulted in its strategic and widespread use

- a) to reinsure hazardous risks not protected by treaty arrangements,
- b) to reduce the liability to treaty reinsurers on certain risks;
- c) to reduce the insurer’s liability in a certain area;
- d) to provide extra capacity and
- e) to obtain the reinsurer’s advice on doubtful risks.

This assists insurers to fill voids in coverage created by reinsurance treaty exclusions by negotiating a separate facultative reinsurance contract for a particular policy or group of policies.
2. Limitations of facultative reinsurance:

Limitations of facultative reinsurance are as follows:

a) As facultative reinsurance is specific to a policy it requires the use of skilled personnel and technical resources for underwriting individual risks.

b) Again, a facultative business often presents exposure to a potential loss. Therefore, a reinsurer must have the necessary personnel with knowledge and capability to underwrite each exposure accurately.

c) Facultative reinsurance involves more administrative work as each offer has to be scrutinized and separate data maintained for retention, limits, rates and reinsurer/s involved for each facultative placement.

3. Considerations for facultative placement

A typical checklist of considerations for a single Mega Risk Facultative Reinsurance Placement are:

a) Risk Inspection
b) PML Assessment
c) Composite Brokers Intervention
d) Valuation
e) Tender Process
f) Co-insurance
g) Reinsurers with superior credit rating
h) Determination of Deductible Time Excess / Other Terms
i) Rate Net of Commission
j) Route Survey for Movement of Critical Machineries
k) Project Monitoring for Delays
l) Claims Control Clause-establishing communication system & procedures for preliminary loss intimation/survey/technical support

Test Yourself 2

Which of the following is correct with respect to facultative reinsurance?

I. Ceding insurer does not have the option to cede in facultative reinsurance
II. Ceding reinsurer has the option to cede in a facultative reinsurance
III. Reinsurer does not have the option to accept facultative reinsurance
IV. Reinsurer does not have the option to decline risk of insurance company.
C. Treaty reinsurance

1. Treaty reinsurance

**Definition**

Treaty reinsurance consists of an agreement between the original insurer and reinsurer whereby the reinsurer automatically accepts a certain liability for all risks falling within the scope of the agreement.

Treaty reinsurance may be transacted on
a) Proportional or
b) Non-proportional basis.

Treaty reinsurance is an obligatory contract in which each party foregoes certain rights such as
a) the reinsurer may not decline risks falling within the scope of the agreements and
b) the insurer must allow all risks coming within the scope to be covered.

A formal treaty wording is usually drawn up by the parties to describe:
a) the monetary limits and mode of operation;
b) the classes of business covered, the territorial scope, the risks excluded;
c) the calculation and payment of claims, the calculation and payment of premiums and the period of agreement.

Since treaty reinsurance provides automatic cover, the insurer is guaranteed a definite amount of reinsurance protection on every risk which he accepts. The administrative costs are therefore much lower than those applying to facultative reinsurance.

Historically, treaties remain in force for long periods of time and are renewed on a fairly automatic basis unless a change in terms is desired.

While treaty reinsurance does not require review of individual risks by the reinsurer, it demands a careful review of:

a) the underwriting philosophy,

b) practice and historical experience of the ceding insurer, including a thoughtful evaluation of the insurer’s attitude toward claims management, engineering control, as well as

c) the management’s general background, expertise and planned objectives.
2. Features of Treaty reinsurance

a) All agreements between the ceding insurer and the reinsurer are by means of written and agreed treaties. This is not the case with facultative reinsurance. However, it is to be noted that treaty wordings are not standardised and different countries and reinsurers have adopted their own typical wordings for treaties.

At the same time, the general conditions are fairly uniform for all treaties but the special conditions are distinct depending on particular needs of the contracting parties and also the individual classes of insurance.

b) Reinsurance relationships range from simple to complex. An insurer:

i. may enter into a single reinsurance treaty to cover certain loss exposures or

ii. may purchase numerous treaties until the desired level of reinsurance protection is achieved.

c) Reinsurers also purchase their own reinsurance protection, called retrocession, in the same forms and for the same reasons as ceding insurers.

**Definition**

When a reinsurance company reinsurance another reinsurance company, the process is known as **Retrocession**.

By protecting reinsurers from catastrophic losses, as well as an accumulation of smaller losses, retrocession stabilizes reinsurer results, thereby spreading the risk.

**Test Yourself 3**

ABC is a reinsurance company. It enters into a contract with another reinsurance company: **XYZ Reinsurance Co. Ltd**. Such contracts between two reinsurance companies are known as ____________

I. Facultative reinsurance
II. Treaty reinsurance
III. Retrocession
IV. Facultative obligatory reinsurance
D. Facultative Obligatory Treaty

1. Facultative Obligatory Treaty

**Definition**

Facultative Obligatory treaty is a contract of reinsurance whereby the ceding insurer may cede risks of any agreed class of insurance which the reinsurer must accept if ceded.

This form is therefore a combination of facultative and treaty forms. At present this type of treaty is not common though one would come across such arrangement in life reinsurance.

It can be placed during weak reinsurance market conditions and is therefore not secure to be relied upon as a primary reinsurance.

The ceding commission for facultative obligatory treaties is progressively less than the quota share and surplus treaties because of lack of a premium to loss exposure balance and spread of portfolio. This form of treaty with its high exposure and low premium has few takers.

This form of treaty is used to:

a) To arrange automatic additional capacity for surplus after exhausting existing automatic arrangements for reinsurance cessions.

b) To facilitate writing of high value exposures or to deal with high accumulation.

c) Where net retention is lowered on account of the degree of hazard this would back up the additional capacity as required.

**Test Yourself 4**

___________ is a contract of reinsurance whereby the ceding insurer may cede risks of any agreed class of insurance which the reinsurer must accept if ceded.

Ⅰ Facultative reinsurance
Ⅱ Treaty reinsurance
Ⅲ Facultative obligatory reinsurance
Ⅳ Retrocession
Summary

a) Under a reinsurance contract, an insurer is indemnified for losses occurring on its insurance policies and covered by the reinsurance contract.

b) There are only two ways a reinsurance contract can be arranged: Facultative and Treaty.

c) Both Facultative and Treaty reinsurances can be arranged either on a proportional or non-proportional basis.

d) In facultative reinsurance, the ceding insurer has the option to cede and the reinsurer has the option to accept a specific risk of a specific insured.

e) When reinsuring facultatively, the insurer may obtain reinsurance coverage before accepting to insure a client.

f) Treaty reinsurance consists of an agreement between the original insurer and the reinsurer whereby the reinsurer automatically accepts a certain liability for all risks falling within the scope of the agreement.

g) When a reinsurance company reinsures another reinsures company, the process is known as retrocession.

h) Facultative obligatory treaty is a contract of reinsurance whereby the ceding insurer may cede risks of any agreed class of insurance which the reinsurer must accept if ceded.
Answers to Test Yourself

Answer 1

The correct answer is III.

Facultative reinsurance is a type of reinsurance contract.

Answer 2

The correct option is II.

Ceding insurer has the option to cede in a facultative reinsurance.

Answer 3

The correct answer is III.

When a reinsurer reinsures another reinsurer, it is known as retrocession.

Answer 4

The correct answer is III.

Facultative obligatory reinsurance is a contract of reinsurance whereby the ceding insurer may cede risks of any agreed class of insurance which the reinsurer must accept if ceded.
Self-Examination Questions

Question 1

Which of the following forms of reinsurance, reinsures risks on individual basis?

I Facultative  
II Retrocession  
III Treaty reinsurance  
IV Facultative obligatory treaty

Question 2

In which of the following reinsurance contracts does the ceding insurer have the option to cede and the reinsurer have the option to accept a specific risk of a specific insured?

I Facultative  
II Retrocession  
III Treaty reinsurance  
IV Facultative obligatory treaty

Question 3

In which of the following reinsurance contract insurer needs to obtain reinsurance coverage before accepting to insure a client?

I Facultative  
II Retrocession  
III Treaty reinsurance  
IV Facultative obligatory treaty

Question 4

Which of the following forms of reinsurance is used to arrange automatic additional capacity for the surplus after exhausting the existing automatic arrangements for reinsurance cessions?

I Facultative  
II Retrocession  
III Treaty reinsurance  
IV Facultative obligatory treaty
Question 5

Which of the following forms of reinsurance is used to facilitate writing of high value exposures or to deal with high accumulation?

I  Facultative
II  Retrocession
III  Treaty reinsurance
IV  Facultative obligatory treaty

Answers to Self-Examination Questions

Answer 1

The correct option is I.

Facultative reinsurance contract reinsures risk on individual basis.

Answer 2

The correct option is I.

In a facultative reinsurance contract, the ceding insurer has the option to cede and the reinsurer has the option to accept a specific risk of a specific insured.

Answer 3

The correct option is I.

When reinsuring facultatively, the insurer may obtain reinsurance coverage before accepting to insure a client.

Answer 4

The correct option is IV.

Facultative obligatory reinsurance is used to arrange automatic additional capacity for surplus after exhausting existing automatic arrangements for reinsurance cessions.

Answer 5

The correct option is IV.

Facultative obligatory treaty reinsurance is used to facilitate writing of high value exposures or to deal with high accumulation.
CHAPTER 3

METHODS OF REINSURANCE - I

Chapter Introduction

The methods by which an insurer effects reinsurance arrangements with a reinsurer fall into two broad categories: Proportional and Non-Proportional. In this chapter, we will discuss the proportional method of reinsurance in detail.

Learning Outcomes

A. Proportional reinsurance methods
B. Proportional treaty
Fercu International Company specialises in baby products. In June 2012, the company purchased a fire insurance cover of USD 10 million from KP General Insurance Ltd. The fire insurance cover provided indemnity to Fercu International for material loss or damage due to fire. As the risk involved was of a substantial amount KP Ltd entered into a reinsurance arrangement with SOY Reinsurance Company Ltd. for reinsurance cover of USD 5 million.

In October 2012, Fercu International suffered material loss and damage from a fire that broke out in its factory due to a short circuit. The total loss was estimated at USD 10 million. KP Ltd. was liable to pay USD 10 million to Fercu International. As KP Ltd. had purchased a reinsurance cover from SOY Reinsurance Company, the two insurance companies shared the loss. KP Ltd. paid USD 10 million to Fercu International out of which USD 5 million was contributed by SOY Reinsurance Company.

The reinsurance arrangement helped KP Ltd. in minimising its risk exposure and in minimising its losses. But it is important to note that although reinsurance helps in sharing losses, the insurer has to share its premiums against coverage with the reinsurance company.

A. Proportional reinsurance

In proportional reinsurance, the reinsurer shares liabilities of the insurer along with sum insured, premiums and claims in the same proportion as per agreement in the treaty. Proportional reinsurance is of two types:

1. Surplus reinsurance
2. Quota share reinsurance

Proportional methods, if carefully structured, assist to improve and stabilise net retained Loss Ratio over a period of time. A potential for additional earning exists where ceding commission exceeds actual acquisition cost and expense, and could assist in improving Combined Ratio.

1. Surplus Reinsurance

   a) Introduction to surplus reinsurance

   In surplus reinsurance, the original insurer i.e. the ceding insurer decides what part of the original insurance he wishes to retain for his own account and reinsures (cedes) the balance with a reinsurer. Premiums and losses are shared in the proportion that the ceding insurer’s retention and the reinsurer’s share bear to the sum insured of the original insurance.
b) Features of surplus reinsurance

i. Ceding insurer’s retention

Under surplus method the ceding insurer decides the limit of liability which he wishes to retain on any one risk or class of risks. This limit is known as the ceding insurer’s retention.

This will be the maximum limit which ceding insurer will retain, but may also actually retain lesser amount as commensurate to risk exposure.

The surplus over and above the retention will be allotted to one or more reinsurers. The limits will be scaled down according to type of risk as per the Table of Limits set for underwriting.

<table>
<thead>
<tr>
<th>Example 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A ceding insurer’s maximum retention may be Rs. 20,00,000 on fire insurances covering Flour Mills. Consider policies with:</td>
</tr>
<tr>
<td>Sums Insured</td>
</tr>
<tr>
<td>Rs. 20,00,000</td>
</tr>
<tr>
<td>Rs. 30,00,000</td>
</tr>
<tr>
<td>Rs. 50,00,000</td>
</tr>
</tbody>
</table>

If the Flour Mill is not a very good risk, the insurer may keep less than Rs. 20,00,000. The surplus amount to be reinsured will therefore increase.

<table>
<thead>
<tr>
<th>Example 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>On office blocks, the ceding insurer retention may be Rs. 10,00,000 on each risk. Consider policies with:</td>
</tr>
<tr>
<td>Sums Insured</td>
</tr>
<tr>
<td>Rs. 5,00,000</td>
</tr>
<tr>
<td>Rs. 25,00,000</td>
</tr>
<tr>
<td>Rs. 1,00,000</td>
</tr>
</tbody>
</table>
In the above examples:

- If reinsurance is arranged on facultative basis, each policy can be negotiated and placed separately.

- Alternatively, if arranged as treaty reinsurance, all policies can be agreed upfront with a panel of reinsurers to be automatically reinsured as per agreement made in this regard. There will be no separate negotiation for any individual policy and placement will be automatic.

ii. Line

A ceding insurer's retention out of sum insured for itself is called a “line”.

iii. Stating the Surplus Limit

There are two ways in which the limits of surplus can be stated:

- **Sum Insured**: The surplus to be reinsured - as seen in the examples above - is based on the sum insured and the maximum amount which the ceding insurer is prepared to retain for his own account.

- **Probable Maximum Loss (PML)**: Probable Maximum Loss (PML) as a basis adds efficiency to retention.

Many risks in the fire and engineering classes are underwritten on the basis of PML. This means that an underwriter will estimate the maximum amount of damage that would probably occur in the event of an accident and base his decisions on retentions and reinsurance on such an estimate.

To illustrate, let us take from Example 2 above, the case of a risk with sum insured of Rs. 1,00,00,000 and the insurer's retention of Rs. 10,00,000. On sum insured basis the percentage of retention and surplus were 10% & 90% respectively.

If the PML is estimated as 25% of the sum insured (i.e. Rs 25,00,000), then the insurer will decide on his retention and reinsurance surplus as under:

\[
\begin{align*}
\text{PML} & : \text{Rs. 25,00,000} \\
\text{Retention} & : \text{Rs. 10,00,000 (40% of PML)} \\
\text{Surplus} & : \text{Rs. 15,00,000 (60% of PML)}
\end{align*}
\]

Thus on PML basis, the retention has increased from 10% to 40% and the surplus for reinsurance has reduced from 90% to 60% (i.e. the insurer’s retained premium has increased and premium outgo on reinsurance is decreased).
Thus, the approach based upon PML assists to retain more premiums by the ceding insurer and reduces his need for surplus reinsurance protection.

It MUST be remembered that the PML is the insurer’s own exercise for decision making on how much to retain and how much to reinsure. PML is not the limit of liability. If the PML estimate is proved wrong by an actual loss, the insurer’s retained share of loss and the reinsurer’s share of loss, both get unduly increased.

2. Quota Share reinsurance

a) Fixed Quota Share

A type of proportional reinsurance in which the reinsurer assumes an agreed percentage of each risk and shares all premiums and losses accordingly with the reinsured.

If reinsurance protects 90% of each risk written by the ceding insurer then the ceding insurer retains 10% and reinsures 90% of each risk. This can be better understood with the help of the following table:

<table>
<thead>
<tr>
<th>Sum Insured</th>
<th>Rs.5,00,000</th>
<th>Rs. 50,00,000</th>
<th>Rs. 1,50,00,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceding Insurer</td>
<td>Rs. 50,000</td>
<td>Rs. 5,00,000</td>
<td>Rs. 15,00,000</td>
</tr>
<tr>
<td>Reinsurer</td>
<td>Rs.4,50,000</td>
<td>Rs. 45,00,000</td>
<td>Rs. 1,35,00,000</td>
</tr>
</tbody>
</table>

Premiums and claims are subject to the same percentages. The choice of retention as % to sum insured is determined as part of reinsurance programme design.

This is different from the surplus method where the percentage reinsured varies with retention on each risk according to the underwriter’s judgment.

b) Variable Quota Share

Variable quota share is a method in which the % of retention varies for different limit of sums insured and reduces with increase in limit of sum insured. This can be graduated to align with occupancy of risk.

In this case % of sum insured retained would reduce for risk with higher exposure.

<table>
<thead>
<tr>
<th>Sum Insured</th>
<th>Rs.5,00,000</th>
<th>Rs.50,00,000</th>
<th>Rs.1,50,00,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention</td>
<td>10%</td>
<td>7.5%</td>
<td>5%</td>
</tr>
<tr>
<td>Ceding Insurer</td>
<td>Rs.50,000</td>
<td>Rs.3,75,000</td>
<td>Rs.7,50,000</td>
</tr>
<tr>
<td>Reinsurer</td>
<td>Rs.4,50,000</td>
<td>Rs. 46,25,000</td>
<td>Rs.1,42,50,000</td>
</tr>
</tbody>
</table>
CHAPTER 3  
PROPORTIONAL REINSURANCE

This method relies upon loss information by limit / exposure and assists the ceding insurer with flexibility to improve quality of retained risk.

a) Usually the quota share treaty is more profitable to a reinsurer as he participates in each and every risk on the same basis as the ceding insurer. The selection against him, present in the surplus treaty, is avoided. For this reason, as noted previously, quota share treaties usually receive a higher rate of ceding commission.

b) Under quota share reinsurance, the ceding insurer passes a large share of his premium income (and his profit) to his reinsurer. As losing the profit to a reinsurer is a high cost to the ceding insurer the quota share method is adopted for short-term specialised requirements rather than as a long term arrangement.

c) A newly established insurer with low capital in relation to the insurance business he wants to write usually requires quota share reinsurance protection until such time he has built up a portfolio of a reasonable size; at which point in time he will seek to change over to surplus method.

In addition it is used by a ceding insurer entering a new class of insurance business or a new territory as it enables the ceding insurer to enter the new business with the expertise and support of the reinsurer and the knowledge that his retained losses will be restricted to the fixed percentage share as retained on each and every risk.

Test Yourself 1

In the surplus method, who decides the limit of liability which can be retained on any one risk or class of risk?

I. Policyholder  
II. Intermediary  
III. Ceding insurer  
IV. Reinsurer

---

#You dream, we care. A new way of learning...
B. Proportional treaty

1. Key aspects of a treaty document

Treaty as a document is an agreement between a ceding insurer and his reinsurers to automatically accept risks that the ceding insurer intends to share.

The following are key operational requirements and/or aspects of a treaty document.

a) Line

The amount ceded to a surplus treaty is normally expressed in the number of “lines” it contains. A “line” is equal to the ceding insurer’s retention.

Thus, where a ceding insurer has a ten line surplus treaty on the basis of a maximum retention of Rs. 5,00,000, the capacity of the treaty to absorb liability over and above the retention would be Rs. 50,00,000 (10 x Rs. 5,00,000), and the ceding insurer would have automatic protection for policies having sums insured up to Rs. 55,00,000.

If, however, for a particular risk the ceding insurer decides to retain only Rs. 3,00,000 the amount ceded to the treaty for that particular risk cannot exceed Rs. 30,00,000 (being 10 x Rs. 3,00,000).

b) Second surplus treaty

When a ceding insurer has policies where the sums insured exceed the limits of the treaty, he has the option of either bearing the balance for his own account (in addition to its existing retention) or affecting further reinsurance either

i. Facultatively: each risk individually or
ii. By a further additional surplus treaty: automatic reinsurance.

Such a further additional surplus treaty would be termed as a second surplus treaty.

c) Method of cession

A ceding insurer may arrange first, second, third and further surplus treaties as per need. The first surplus treaty would have any surplus over and above the ceding insurer’s retention allotted to it first and in priority to any other reinsurance.

The second surplus treaty would receive a risk only where the original sum insured was larger than the amount of the ceding insurer’s retention plus the amount allocated to the first surplus treaty. This method of cession repeats for each additional surplus level.
It was pointed out above that the retention of the ceding insurer is a limit for his maximum retention. The insurer may decide that he does not wish to retain the full amount on a particular risk (in the above example he may decide to retain only Rs. 4,00,000 instead of the maximum limit of Rs. 5,00,000). The surplus would then be recalculated and ceded over the three treaties as appropriate in terms of number of lines.

2. Reinsurer’s Share

In the description so far there was an underlying assumption that the whole surplus was ceded and dealt with by one reinsurer.

However, surplus treaties are generally reinsured with more than one reinsurer. There can be a large number of reinsurers sharing the surplus ceded to the treaty, for example,

Example

Reinsurer’s participation is expressed as:

- 10% not exceeding 1 line part of 10 lines or
- 90% not exceeding 9 lines part of 10 lines.

Thus a 10 lines treaty placed with 2 Reinsurers A and B for 10% and 90% respectively will operate as follows for cessions from three different risks:

<table>
<thead>
<tr>
<th>Sum Insured</th>
<th>Risk 1</th>
<th>Risk 2</th>
<th>Risk 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs. 10,00,000</td>
<td>Rs.20,00,000</td>
<td>Rs.55,00,000</td>
<td></td>
</tr>
<tr>
<td>Rs. 5,00,000</td>
<td>Rs. 5,00,000</td>
<td>Rs. 5,00,000</td>
<td></td>
</tr>
<tr>
<td>Rs. 15,00,000</td>
<td>Rs.50,00,000</td>
<td>(i.e. 3 lines)</td>
<td></td>
</tr>
<tr>
<td>Rs. 5,00,000</td>
<td>Rs. 1,50,000</td>
<td>(i.e. 1 line)</td>
<td></td>
</tr>
<tr>
<td>Rs. 1,50,000</td>
<td>Rs. 45,00,000</td>
<td>(i.e. 2.7 lines)</td>
<td>(i.e. 9 lines)</td>
</tr>
<tr>
<td>Rs. 45,00,000</td>
<td>(i.e. 0.9 line)</td>
<td>(i.e. 0.1 line)</td>
<td>(i.e. 0.3 lines)</td>
</tr>
</tbody>
</table>
It can be seen from the example above that even when the full number of lines is not used, the participating reinsurers receive their proportion for each and every cession to the treaty. There is no priority between reinsurers on the same treaty.

3. Business Covered

The treaty arrangement between ceding insurer and reinsurer will cover surplus only from specified risks within the scope of the treaty.

The treaty as a document of agreement will specify the following:

a) Class of Business Covered

The treaty will contain a description or list of classes of business covered e.g. burglary insurances, contractors all risks. It used to be the practice to use descriptions such as “all classes of business transacted in the fire department”. These wordings are not readily accepted as the emergence and inclusion of new types of add-on covers can lead to covers which were never intended by the reinsurer.

b) Territorial Scope:

The areas of the world to which the treaty applies are listed. Where treaties are on a ‘worldwide’ basis, the United States of America and Canada exposures are usually excluded - because of the different legal systems and insurance practices prevailing in those countries.

A ceding insurer transacting business in the USA would negotiate a separate treaty for such business. Because of the nature of business involved, marine and aviation treaties usually have a ‘worldwide’ scope. Worldwide cover can, however, be restricted to voyages to and from a particular region or territory or to vessels/aircraft of a particular nationality.

c) Underlying Basis

i. Risk-attaching basis

A basis under which reinsurance is provided for all claims from the ceding insurer’s underlying policies incepting during the period of the reinsurance contract are covered even if such claims occur after the expiration date of the treaty agreement. Any claim from the underlying policies incepting outside the period of the reinsurance treaty is not covered even if it occurs during the period of the reinsurance treaty.

ii. Loss-occurring basis

A basis under which all claims occurring during the period of the treaty, irrespective of when the underlying policies incepted, are covered. Any claim occurring after the expiration date of treaty is not covered.
4. Exclusions

It is not often that a reinsurer accepts to protect all the risks which a ceding insurer may write in respect of a particular class of business. The list of exclusions will vary with class of business covered and the experience of the ceding insurer. A reinsurer will be reluctant to consider cessions from a newly established insurer to underwrite certain hazardous risks which may be well within the competence of a long and well established insurer.

A reinsurer may exclude risks or define the cover more clearly targeting to protect the treaty result in his own interest and thus prevent the ceding insurer from writing risks in which he is not experienced.

5. Bordereaux

A general practice under surplus treaties is for the ceding insurer to provide the reinsurers with a list detailing the risks ceded to the treaty. This list called bordereaux gave details of:

- a) Name of insured;
- b) Class of risk;
- c) Sum insured;
- d) Premium rate, ceding insurer’s retention;
- e) Amount reinsured and
- f) Period of insurance.

The bordereaux is submitted monthly or quarterly as agreed between the parties. A bordereaux is also submitted for premiums, claims and their recoveries. In order to effect a saving in time and administration, ceding insurers have dispensed with the bordereaux. Reinsurers tend to insist on bordereaux only if the treaty is with a newly established ceding insurer to enable the reinsurer monitor the ceding insurer’s use of the treaty.

In respect of specialised classes of insurances there is a risk of accumulation e.g. Contractors All Risks or the surplus ceded is so large that the reinsurer himself may need to effect reinsurance in respect of his acceptance. In such cases the reinsurer expects detailed advise to enable him manage his own risk exposure.

6. Premiums

<table>
<thead>
<tr>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reinsurance premium paid by the ceding insurer to the reinsurer(s) is a percentage of the original premium paid by the insured.</td>
</tr>
<tr>
<td>The percentage paid to the reinsurer(s) is the same as the percentage of the sum insured ceded by the ceding insurer.</td>
</tr>
</tbody>
</table>
### Example

#### Table 1

<table>
<thead>
<tr>
<th>Sum insured</th>
<th>Ceding Insurer</th>
<th>Reinsurer(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs. 10,00,000</td>
<td>Rs. 5,00,000</td>
<td>Rs. 5,00,000</td>
</tr>
<tr>
<td>Ceding %</td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>Premium</td>
<td>Rs. 2,000</td>
<td>Rs.1,000</td>
</tr>
</tbody>
</table>

#### Table 2

<table>
<thead>
<tr>
<th>Sum insured</th>
<th>Ceding Insurer</th>
<th>Reinsurer(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs. 45,00,000</td>
<td>Rs. 5,00,000</td>
<td>Rs.40,00,000</td>
</tr>
<tr>
<td>Ceding %</td>
<td></td>
<td>88.9%</td>
</tr>
<tr>
<td>Premium</td>
<td>Rs.45,000</td>
<td>Rs.5,000</td>
</tr>
</tbody>
</table>

The premiums for any risks excluded from the treaty and return premiums due under cancelled policies are not included in the reinsurance premium. Commissions paid by the ceding insurer to agents and brokers are not deducted from the reinsurance premium.

#### 7. Ceding Commission

The reinsurer agrees a commission by way of percentage of reinsurance premium given to him, known as ceding commission, to the ceding insurer to compensate for his:

- a) Original commissions and brokerages,
- b) Acquisition cost,
- c) Costs of keeping the business on the books and
- d) Administration expenses.

i. The ceding commission is calculated on the ceded premium by applying the agreed percentage as set out in the treaty slip and agreed. This is incorporated in the treaty document.

ii. The level of the ceding commission is determined through negotiation between the ceding insurer & the reinsurers.

iii. A quota share treaty would assist for a higher ceding commission as compared to a surplus treaty as the latter puts in more level of exposure for lesser reinsurance premium ceded to reinsurers.

iv. The higher level of surplus, such as second and third surplus would have lower ceding commission as compared with the first surplus treaty. This is due to reduction in premium ceded to the higher surplus treaties even while keeping high level exposures to these surplus levels.
v. In practice the ceding insurer would seek a ceding commission far in excess of original expenses. Hence it is usual to note ceding commission of 35% where 20% would be appropriate to recover original costs of acquisition and administration.

vi. Where the results under a treaty are profitable, the reinsurer may agree a further commission called a profit commission. By this method a percentage of the profits of the treaty for the treaty year are returned to the ceding insurer.

Profit to the Treaty = Earned premium - Incurred claims - Ceding commission

There are different methods and conditions to calculate profit commission based on profit to the treaty. Conditions include difference in rate of exchange and expenses of management.

vii. In certain classes of insurance business, e.g. marine, reinsurance premiums are paid on a “net” basis, that is, less original commission known as Original Net Rate. In such a case, the reinsurer will only allow an overriding commission, ORC, to cover the ceding insurer’s original costs of acquisition. The ORC is however a small percentage, say, 2.5%.

8. Claim

A claim falling within the scope of a treaty will be shared between the ceding insurer and his reinsurer in the same proportions as the original sum insured was reinsured. All reinsurers participating bear their respective share.

<table>
<thead>
<tr>
<th>Sum Insured</th>
<th>Loss Apportioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sum Insured / Loss</td>
<td>Rs.35,00,000</td>
</tr>
<tr>
<td>Ceding Insurer - Retains</td>
<td>Rs.5,00,000</td>
</tr>
<tr>
<td>Ceded to Surplus Treaty</td>
<td>Rs. 30,00,000</td>
</tr>
<tr>
<td></td>
<td>85.7%</td>
</tr>
<tr>
<td>Reinsurer A - 10%</td>
<td>Rs.3,00,000</td>
</tr>
<tr>
<td>Reinsurer B - 90%</td>
<td>Rs. 27,00,000</td>
</tr>
</tbody>
</table>

a) The reinsurer’s liability is not limited to his share of the claim paid by the ceding insurer to his insured claimant.

The reinsurer is also liable for his share of claims’ costs such as:

i. Legal fees,
ii. Assessor’s fees etc.
Any recovery, whether by means of salvage or by the exercise of contribution and subrogation rights, must be shared between the ceding insurer and his reinsurer in the same proportion as the reinsurance bears to the total sum insured.

b) Claims payments are usually included in the statement of accounts and deducted from ceded premiums due to the reinsurer.

c) It is usual to note a provision in the treaty that for large claims, at the request of the ceding insurer by way of a notice for Cash Loss, reinsurers would affect an immediate cash settlement to be adjusted in the statement of account to be sent in due course by the ceding insurer.

In structuring a proportional reinsurance programme, there are unique issues to consider.

In this respect the quota share treaty and a combination of quota share and surplus are considered in the following paragraphs.

9. Inception and Termination

Under the proportional treaty, the reinsurer’s liability commences simultaneously with that of the ceding insurer. The moment the ceding insurer accepts a risk which falls within the scope of the treaty, the reinsurer is bound for his proportion. If a loss should occur before the cession was made, the reinsurer will still be liable for the proportion that would have been ceded.

a) The treaty begins on the date agreed between the parties. However, treaties are arranged when business is written throughout the ceding insurer’s financial year.

Thus, at any moment, the ceding insurer will have policies about to expire, policies in mid-period and others just issued. The reinsurer will cover only the policies issued or renewed on or after the inception date of the treaty as agreed with the ceding insurer and leave the policies already in force to be covered under the previous treaty. This is the case when treaty is agreed to cover on the basis of underwriting year.

b) The alternative method is for the ceding insurer to pay his new reinsurer an additional premium (called portfolio entry premium) to cover corresponding policies in force on the date when his new treaty agreement commenced.

c) Likewise, when a treaty is terminated, the reinsurer will remain liable for all policies issued or renewed during the treaty period until these policies expire, even though the expiration dates may be beyond the date of termination.
d) Alternatively, the reinsurer may cut off the cover completely on the date of termination by paying to the ceding insurer a portfolio withdrawal premium corresponding to polices that are running off. However, the reinsurer would still remain liable for losses that occurred during the period of the treaty and outstanding on the date it was terminated.

e) The facility of portfolio entry premium and portfolio withdrawal premium do not apply to marine and aviation reinsurance business. They continue to be arranged on underwriting year basis. That is, the treaty covers policies issued in a particular financial year and all premiums and losses are retrospectively accounted back to that year of treaty agreement.

f) Proportional treaties are usually negotiated on a continuous basis, that is, they are renewed automatically on the same terms each year unless one of the parties, the ceding insurer or the reinsurer, give notice (usually three months) of cancellation and seeks a review of the terms prior to the next renewal.

Test Yourself 2

is a general practice under surplus treaties where the ceding insurer provides the reinsurers with a list detailing the risks ceded to the treaty.

I. Ceding commission
II. Bordereaux
III. Ceding insurers retention
IV. Cessation

g) Usually the treaty contains a limit for the cover.

Example

The reinsurer shall accept 50% of each and every risk insured, subject to a maximum acceptance of Rs. 10,000 for any one risk.

As a further protection, it is usual for the treaty to state that the ceding insurer will retain a certain percentage for his own account.

This will ensure that the ceding insurer cannot accept inferior risk and also reinsure all the risks without the consent of his reinsurer.
10. Quota Share and Surplus Combined

Quota share and surplus methods can be and are often used in combination to protect a particular class of insurance business. Thus reinsurance protection is provided first by a quota share treaty agreement and followed by further protection by a surplus treaty agreement. When this is done, reinsurance cessions are first made to the quota share treaty and parts of the surplus amounts are ceded to the surplus treaty.

The ceding insurer keeps his retention under the quota share treaty and usually this retention then becomes the “line” on which the surplus treaty is based. The ceding insurer cannot keep two retentions - one for each treaty.

However, in practice, the whole of the underlying quota share treaty is considered as the “line”. It would be appropriate to call this a gross line as opposed to net line being the ceding insurer’s retention under the quota share treaty.

The difference between gross and net lines is shown in the following example:

<table>
<thead>
<tr>
<th>Quota share treaty limit</th>
<th>Rs.100,000 any one risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceding Insurer`s retention</td>
<td>Rs.10,000 any one risk</td>
</tr>
<tr>
<td><strong>SURPLUS TREATY - two options to negotiate and place : net or gross</strong></td>
<td></td>
</tr>
<tr>
<td>9 net lines = 9 x Rs.10,000</td>
<td>Rs.90,000 any one risk</td>
</tr>
<tr>
<td>9 gross lines = 9 x Rs.100,000</td>
<td>Rs.900,000 any one risk</td>
</tr>
</tbody>
</table>

Under the above example:

a) All risks up to Rs.100,000 sum insured may be ceded to the quota share treaty and the ceding insurer will retain 10% of the amounts ceded.

b) The balance of sum insured in excess of Rs. 100,000 will be ceded to the surplus treaty up to Rs. 90,000 if the surplus agreed is 9 net lines or up to Rs. 900,000 if the surplus agreed is 9 gross lines.

c) In any event, in the above example, the ceding insurer is never committed for more than Rs. 10,000 any one risk for his own account.

It can be seen that it is extremely important to determine whether a surplus treaty, when arranged in conjunction with a quota share, is based on net or gross lines as the difference in monetary limits can be considerable.
11. A specimen treaty slip

A specimen of treaty slip for surplus reinsurance is included below to provide insight into the making of a treaty slip used in placement and confirmation of reinsurance cover.

This specimen can be modified and varied for different methods as discussed above for proportional reinsurances.

Importantly the headers stated within it would assist to put together a proportional treaty slip.

**Specimen of surplus treaty slip**

<table>
<thead>
<tr>
<th>Reassured</th>
<th>ABC Insurance Insurer, Mumbai, India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>Continuous contract effective from 1st April, 2010</td>
</tr>
<tr>
<td></td>
<td>(Subject to 90 days’ Notice of Cancellation at anniversary dates only).</td>
</tr>
<tr>
<td>Type</td>
<td>Engineering and Miscellaneous Accident Surplus Treaty</td>
</tr>
</tbody>
</table>
| Business           | a) All business written in the Engineering Department of the Reassured  
                    | b) Cessions to Civil Engineering Completed Risks (CECR) as per Munich Re’s Standard CECR Policy Wording. Rating will be in co-operation with the leading reinsurer and Wet Risks will be excluded  
                    | c) Prior Approval of the leading Reinsurers is required for cessions in respect of MLOP Risks, Gas Turbine Power Stations and Petrochemical Power Plants and ALOP/DSU following CAR/EAR policies |
| Exclusions         | As per Annexure |
| Territory          | India, Nepal and Bhutan. |
| Limits             | Engineering: Rs.1,600,000,000 PML/Rs. 4,800,000,000 S.I. |
|                    | Sub limit for Third Party Liability section of CAR/EAR Policies: Rs.250,000,000 per policy (for 100%) to be ceded proportionately to the Material Damage Section  
                    | Miscellaneous: Rs.450,000,000 Sum Insured |
| Retention          | Miscellaneous Accident  
                    | 1. Obligatory Cession to GIC: 10%  
<pre><code>                | 2. Maximum Retention: Rs.30,000,000 |
</code></pre>
<p>| Engineering        | Rs.1,500,000,000 PML/Rs.4,500,000,000 S.I. |
| Escalation Clause  | It is hereby agreed that the treaty limits may be increased by an amount not exceeding 30% of the limits specified in this slip should there occur an increase in sum insured not exceeding this percentage on any one risk ceded there under during the currency of this agreement |</p>
<table>
<thead>
<tr>
<th><strong>Commission</strong></th>
<th>Sliding Scale commission from 30% to 45% at loss ratios from 60% to 45%; 1% increase of commission for each 1% reduction of loss ratio.</th>
</tr>
</thead>
</table>
| Provisional Commission | 37.50%  
For ALOP/DSU Risks | 22.50% |
| **Profit Commission** | Nil |
| **Cash Loss** | Rs.10,000,000 (100% Treaty) |
| **Portfolio Transfer** | Each Treaty year will be kept open for seven years. Transfer of outstanding loss portfolio at 90% at the end of seven years will be affected to the next open year. |
| **Wording** | As expiring or as agreed by the leading underwriters, subject to all terms, clauses and conditions as agreed by leading underwriters. Reinsurers hereon agree to follow the said leading underwriters in all matters of construction and performance of this reinsurance. |
| **Accounts** | Quarterly |
| **E.P.I.** | Rs.500,000,000 |
| **Information** | Cessions to the treaty will be after Indian Market Retention and Cessions to Companies Surplus Treaties. |
| **Name of the Broker** | M/s XYZ |
| **Order** | -----% of 100% |
| **Leader** | ---% with A Reinsurance Co |
| **Reinsured with** | ---% with B Reinsurance Co |

**Test Yourself 3**

__________ is an automatic reinsurance agreement whereby the ceding insurer is bound to part with a fixed percentage of every risk written by it.

I. Proportional treaty  
II. Proportional facultative  
III. Surplus treaty  
IV. Quota share treaty
Summary

a) In proportional reinsurance, the reinsurer shares the liabilities of the insurer along with the sum assured, premiums and claims in the same proportion as per the agreement in the treaty.

b) In surplus reinsurance, the original insurer (i.e. the ceding insurer) decides what part of the original insurance he wishes to retain for his own account and reinsures (cedes) the balance with a reinsurer.

c) A general practice under surplus treaties is for the ceding insurer to provide the reinsurers with a list detailing the risks ceded to the treaty. This list is called bordereaux.

d) The reinsurance premium paid by the ceding insurer to the reinsurer(s) is a percentage of the original premium paid by the insured.

e) The quota share treaty is an automatic reinsurance agreement whereby the ceding insurer is bound to part with a fixed percentage of every risk written by it.

f) Under proportional treaty, the reinsurer’s liability commences simultaneously with that of the ceding insurer. The moment the ceding insurer accepts a risk which falls within the scope of the treaty, the reinsurer is bound for his proportion.

g) The treaty begins on the date agreed between the parties. However, treaties are arranged when business is written throughout the ceding insurer’s financial year.
Answers to Test Yourself

Answer 1

The correct answer is III.

In the surplus method, the ceding insurer decides the limit of liability which can be retained on any one risk or class of risk.

Answer 2

The correct option is II.

Bordereaux is a general practice under surplus treaties where the ceding insurer provides the reinsurers with a list detailing the risks ceded to the treaty.

Answer 3

The correct option is IV.

The quota share treaty is an automatic reinsurance agreement whereby the ceding insurer is bound to part with a fixed percentage of every risk written by it.

Self-Examination Questions

Question 1

In surplus reinsurance, a ceding insurer’s retention is known as__________.

I. Surplus limit
II. Line
III. PML
IV. Quota share

Question 2

In which of the following methods does the percentage of retained sum insured vary for different limits of sums insured and reduce with increase in the limit of sum insured?

I. Proportional Reinsurance
II. Surplus Reinsurance
III. Quota share reinsurance
IV. Variable quota share reinsurance
Question 3

Which of the following details are not included in a list of bordereaux?

I. Name of insured
II. Territorial scope
III. Class of risk
IV. Ceding insurer’s retention

Question 4

In the Treaty, as a ‘document of agreement’, which of the following countries are normally excluded while listing territorial scope?

I. UK
II. Canada
III. Australia
IV. South Africa

Question 5

Which of the following is incorrect with respect to reinsurance premium?

I. The reinsurance premium paid by the ceding insurer to the reinsurer(s) is a percentage of the original premium paid by the insured.

II. The percentage paid to the reinsurer(s) is the same as the percentage of the sum insured ceded by the ceding insurer.

III. The premiums for any risks excluded from the treaty and return premiums due under cancelled policies are not included in the reinsurance premium.

IV. Commissions paid by the ceding insurer to agents and brokers are deducted from the reinsurance premium.
Answers to Self-Examination Questions

Answer 1

The correct option is II.

In surplus reinsurance, a ceding insurer’s retention of a portion of the sum insured for itself is known as a Line.

Answer 2

The correct option is IV.

Variable quota share reinsurance is a method in which the percentage of the retained sum insured varies for different limits of sums insured and reduces with increase in the limit of sum insured.

Answer 3

The correct option is II.

Details of territorial scope are not included in the list of bordereaux.

Answer 4

The correct option is II.

In the Treaty, as a ‘document of agreement’, Canada is usually excluded while listing territorial scope because of the different laws and insurance practices prevailing in the country.

Answer 5

The correct option is IV.

Commissions paid by the ceding insurer to agents and brokers are not deducted from the reinsurance premium. Hence, this option is incorrect.
CHAPTER 4

METHODS OF REINSURANCE - II

Chapter Introduction

As discussed earlier, the methods of effecting reinsurance arrangements with a reinsurer fall into two broad categories: Proportional and Non-Proportional. In this chapter, we will discuss the non-proportional methods.

Learning Outcomes

A. Non proportional reinsurance
B. Non proportional treaty
A. Non proportional reinsurance

Non-proportional reinsurance is also known as Excess of Loss reinsurance.

XL is the abbreviated form for ‘excess of loss’ and Xs is the abbreviated form for ‘excess’.

Under Excess of Loss contracts, the reinsurer agrees to indemnify the reinsured for losses that exceed a specified monetary amount identified by the reinsured. Such an identified amount is the deductible also known as ‘excess’ or ‘priority’ or ‘underlying’.

The reinsured bear all loss amounts up to the deductible and the reinsurer pays the balance of any loss that exceeds the deductible, up to an agreed limit. An excess of loss reinsurance arrangement with deductible of Rs. 25,00,000 and agreed limit of Rs. 1,00,00,000 will be expressed as:

Rs.1,00,00,000 Xs Rs. 25,00,000.

The excess of loss contract is not concerned with any proportionate shares of the original sum insured, premium and claims on any one risk, but is concerned with the amount of loss being reinsured.

Status of ceding insurer

The status of the ceding insurer is that of a reinsured. He does not cede risk and proportional premium. He seeks protection to mitigate a loss beyond his chosen limit of loss retention.

Thus, excess of loss reinsurance contracts are formed on a basis much different than proportional reinsurance.

Example

If cover limit is of Rs. 95,00,000 in excess of Rs. 5,00,000 in respect of losses arising out of any one claim, then share of loss will be as follows:

<table>
<thead>
<tr>
<th>Amount of Loss</th>
<th>Reinsured</th>
<th>Excess Loss (XL) Reinsurer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rs.3,00,000</td>
<td>Rs.3,00,000</td>
<td>Nil</td>
</tr>
<tr>
<td>Rs.5,00,000</td>
<td>Rs.5,00,000</td>
<td>Nil</td>
</tr>
<tr>
<td>Rs. 25,00,000</td>
<td>Rs.5,00,000</td>
<td>Rs.20,00,000</td>
</tr>
<tr>
<td>Rs.1,06,00,000</td>
<td>Rs.5,00,000</td>
<td>Rs.95,00,000</td>
</tr>
</tbody>
</table>

plus Rs.6,00,000 (not reinsured)
Balance of loss

Balance of loss over and above the total of retention and agreed XL reinsurance cover limit (Rs. 6,00,00 in the above example), reverts to the reinsured. Different types of excess of loss reinsurances and their purposes as well as functions can be considered as under:

1. Working (Risk) Excess of Loss (XL)

This reinsurance is intended to limit losses that arise on the reinsured’s day-to-day operations. It caters to the reinsured’s need for protection against number of losses that arise out of a single accident, occurrence or event.

For example -
   a) A number of claims will be faced by the reinsured under Personal Accident insurance policies, due to deaths or injuries to many persons in an accident involving passenger vehicles, train or an aircraft,
   b) A pharmaceutical manufacturer’s product may poison many people,

Similarly, the Working XL reinsurance can be effective for reinsurance of legal liabilities to third parties, as the quantum of a loss for a liability claim is established only after an award has been made by a court of law.

2. Risk Excess of Loss:

Adverse underwriting results of proportional treaties and resultant shrinkage of proportional reinsurance capacities, may force the reinsured to increase per risk retention levels, beyond what their financial strength may justify. Under such situations the “Per Risk” Excess of Loss provides protection for the increased retention levels. This form of reinsurance is mainly used in protecting property risks loss exposures.

3. Surplus facultative & Facultative Excess of Loss reinsurance

A surplus facultative reinsurance may be affected on an individual risk where a ‘one off’ type of large loss may be expected to occur or Facultative XL reinsurance may be arranged on a number of such risks. Both these types of reinsurances are for agreed deductibles and selected limits of cover.

4. Catastrophe Excess of Loss (Cat XL) reinsurance

This reinsurance protects a reinsured against an accumulation or aggregation of losses arising from an identified event such as Earthquake, Flood, Cyclone, Riots, etc., which may affect a large number of risks. Such accumulations or aggregation may far exceed the reinsured’s retention on an “any one risk” basis.
CHAPTER 4
NON PROPORTIONAL REINSURANCE

If the reinsured’s area of operations is divided in, say, four zones - east, west, north & south, the following table may illustrate how the exposures accumulate and selecting cover limit for catastrophe XL reinsurance may present some complexities.

<table>
<thead>
<tr>
<th>Zone</th>
<th>Accumulation or Aggregate total of Net Retentions on all risks written</th>
<th>Reinsured’s Estimate of Probable Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>Rs.300,00,00,000</td>
<td>Rs.30,00,00,000</td>
</tr>
<tr>
<td>West</td>
<td>Rs.2500,00,00,000</td>
<td>Rs.375,00,00,000</td>
</tr>
<tr>
<td>North</td>
<td>Rs.1500,00,00,000</td>
<td>Rs.300,00,00,000</td>
</tr>
<tr>
<td>South</td>
<td>Rs.1000,00,00,000</td>
<td>Rs.100,00,00,000</td>
</tr>
</tbody>
</table>

Modeling techniques are provided by leading risk consultants and brokers. With data of policies issued being electronically processed, it assists to build up a scenario of aggregation by areas exposed to catastrophe down to Pin code and city market or any other desired levels.

The overall limit for the catastrophe excess of loss reinsurance cover may be based on analysis such as in the example above. We can see that the highest estimated probable loss is of Rs. 375 crores is indicated as limit of catastrophe excess of loss cover & the reinsured has to select a suitable deductible.

5. Stop Loss or Excess of Loss Ratio reinsurance

This form of reinsurance limits the aggregate amount of loss the reinsured would lose on a given class of business in an annual period. It responds if an accumulation of losses exceeds the deductible selected.

The cover is normally expressed in percentage terms. In the event of the reinsured’s net loss ratio for a given year rises above a certain percentage, this reinsurance pays in excess of that figure up to a higher agreed percentage beyond which the reinsured retains the loss.

In short, this is a method that mitigates the impact of an unbearable net loss ratio Application of stop loss method: This method applies to the loss ratio of the reinsured for any one class of business. This does not apply on the basis of per risk (working) or catastrophe.

The Trigger: The trigger can be a pre-agreed percentage of net written premiums.
The trigger is designed to stop the loss from claims of the reinsured for that class of business at, say, a pre-agreed 80% of net written premium. Aggregate excess of loss cover selected is 90% of excess of loss ratio over 80% subject to maximum loss ratio of 130%.

<table>
<thead>
<tr>
<th>Year</th>
<th>Loss Ratio</th>
<th>Retention</th>
<th>XL 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>65%</td>
<td>65%</td>
<td>Nil</td>
</tr>
<tr>
<td>2008</td>
<td>70%</td>
<td>70%</td>
<td>Nil</td>
</tr>
<tr>
<td>2009</td>
<td>85%</td>
<td>80% + 0.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>2010</td>
<td>100%</td>
<td>80% + 2%</td>
<td>18%</td>
</tr>
<tr>
<td>2011</td>
<td>130%</td>
<td>80% + 5%</td>
<td>45%</td>
</tr>
<tr>
<td>2012</td>
<td>140%</td>
<td>80% + 5% + 10%</td>
<td>45%</td>
</tr>
</tbody>
</table>

In the above example the reinsurer bears 90% of loss ratio in excess of 80%. The balance reverts to the reinsured and is retained by him. In the year 2012, the loss ratio exceeds the upper limit of the excess of loss cover. The excess 10% reverts to the reinsured fully and is retained by him.

6. Aggregate Excess of Loss Reinsurance

Aggregate excess of loss cover is on the similar lines as Excess of Loss Ratio reinsurance for a defined class of business but the cover parameters (i.e. the limit and deductible) are expressed in amounts rather than percentages. In Aggregate Excess of loss, the amount applies as a trigger for cover instead of loss percentage / loss ratio. This can be written excess of an Rupee amount in Rupees.

Example

Rs.50,00,000 in the aggregate excess of Rs.5,00,000 in the aggregate. The trigger can also be a pre-agreed limit of cover in excess of accumulation of net retained losses. For example, if a reinsured retains Rs. 5,00,000 on each life and there is accumulation from an accident with loss of 10 lives. The reinsured could protect such accumulation by an aggregate excess of loss limit of, say, Rs.40,00,000 excess of Rs.10,00,000.

The reinsurer indemnifies the reinsured for an aggregate (cumulative) amount of losses in excess of a specified aggregate amount. This can also be written with an interior deductible, i.e., to apply only to individual losses excess of a stated Rupee amount (e.g., Rs.40,00,000 in the aggregate excess of Rs.10,00,000 in the aggregate applying only to losses greater than Rs.50,000 per loss).
7. Whole Account Excess of Loss cover

There are variants to Stop Loss and Aggregate Excess of Loss covers. A reinsured may wish to protect his whole book of business. A single composite cover could be installed protecting at one go the whole business of the reinsured incorporating all classes of business.

Such an arrangement is known as Whole Account Excess of Loss cover. This method is common in miscellaneous class of business wherein limits and priorities are set for each different sub-class.

8. Umbrella Excess of Loss cover

Another variant is the Umbrella Excess of Loss cover. This is installed to assist to cover any gap in the various reinsurance arrangements made by a reinsured.

In addition it offers additional limit for protection when in a catastrophe all reinsurance arrangements are exhausted in their limits and there is a huge financial accumulation of net retained losses from various classes of business.

Test Yourself 1

ABC insurer wants to protect his whole book of business. Hence he enters into an arrangement where a single composite cover is installed for protection of its whole business, incorporating all classes of business. This arrangement is known as _________________.

I. Excess of loss
II. Aggregate excess of loss
III. Whole account excess of loss
IV. Umbrella excess of loss

B. Non proportional treaty

Splitting and Structuring XL requirements in layers

The reinsured can split & structure his total XL requirement in layers depending on market conditions, availability of capacity and cost effectiveness.

These layers would sit on top of each other consecutively; each can be placed with different reinsurers and get triggered only after capacity of the previous layer is exhausted e.g.

The first layer would cover losses up to the agreed limit in excess of the amount of deductible to be retained by the reinsured. The second layer would commence where the first ended and continue to its limit of cover and so on.
Co-insurance can be built in the excess of loss cover; for the reinsurer may not wish to be liable for the whole of the excess but only for a percentage e.g. 90% and the reinsured retains the balance. e.g. “Treaty covers 90% of Rs. 20,00,000 in excess of Rs.5,00,000 each and every loss arising out of any one event with a maximum liability to the reinsurer of Rs. 18,00,000.” In the above example, the retained loss to the reinsured would be Rs.5,00,000 + Rs.2,00,000 = Rs.7,00,000.

Some Important features of Non proportional reinsurance

1. Ultimate Net Loss

Because the reinsurer becomes interested only when a loss exceeds the retained loss, a definition of ultimate net loss that requires to be protected is necessary. The ultimate net loss has to exceed the net retained loss after recoveries from all other reinsurances and before the excess of loss reinsurer becomes interested.

The amount of the ultimate net loss consists not only of all sums paid in respect of the claim but also all expenditure incurred by the insurer in connection with the claim, such as:

- a) Survey reports,
- b) Assessor’s fees,
- c) Salvage costs,
- d) Legal costs, interest, etc.

Salaries of employees and office costs of the insurer, however, are not included in the calculation of the claims’ costs. Recoveries from proportional reinsurers, salvage, subrogation and contribution are deducted from the claims’ costs.

2. The Reinsured’s Retention

One of the most difficult decisions the reinsured has to make is the setting of his retention for the excess of loss cover. The ideal level of retention has been vaguely stated as being low enough as not to be involved in the majority of the claims and yet high enough to keep the insurer from being too greatly exposed in any one loss.
The fixing of the retention will also depend on what type of excess of loss cover is required:

- Working cover,
- Catastrophe cover,
- Stop loss / aggregate loss,
- Whole account or
- Umbrella excess of loss.

a) **Retention Per Risk**

These are used to reduce the insurer’s loss in respect of a single risk. For this reason the retention under the excess of loss will be fixed at an amount less than the amount which they accept for their net account on any one risk under proportional reinsurance arrangement.

b) **Retention Per Event**

Catastrophe covers protect the insurer against unknown accumulations arising out of one event. The retention under this type of excess of loss is normally more than the amount retained under each individual risk. This means that two or more risks have to be involved in a single loss before the excess of loss is affected. In practice a ‘Two Risk Warranty’ is included within the contract to denote minimum accumulation from two risks.

3. **Minimum & Deposit Premium**

The XL reinsurer does not know in advance what the final premium will be and hence calculates the amount of premium to be paid in advance as deposit premium by the reinsured. Such deposit premium when prescribed as minimum premium for the cover, it is termed as ‘Minimum & Deposit Premium’ (Mindip).

4. **I.B.N.R. (Incurred But Not Reported) Losses:**

These refer to anticipated loss provisions in respect of individual claims which may take long time to get reported and even longer time to get fully settled (e.g. complicated legal liability claims).

5. **Premium for XL cover**

Larger the deductible (also termed as Underlying or priority) smaller is the exposure to & premium for excess of loss covers. But how much smaller is the question that has baffled reinsurance underwriters since excess of loss began.

The premium for an excess of loss cover is usually expressed as a percentage (the rate) of the gross premium income written by the reinsured for the type of risk or class of business covered.
Gross premium income is usually considered as being all premiums written by
the reinsured during the contract period less return premiums, cancellations,
premiums on excluded risks and premiums on reinsurances which reduce the
reinsurer’s exposure (facultative reinsurances and underlying reinsurances). This
is termed as Gross Net Premium Income - GNPI.

The calculation of a rate presents considerable problems. Although it is not
possible to draw up a table of rates to be consulted with the same actuarial
certainty as may be found in certain types of direct insurances, the reinsurer’s
intention behind the calculation of a suitable rate is the same as rating direct
insurance, namely to cover:

a) The normal claims expected to occur,
b) Reserve for worsening experience- including inflation and I.B.N.R.
   claims,
c) The reinsurer’s management expenses,
d) Surplus that may be termed a profit

Several general factors affect the rate, the main ones being the:

a) Level of excess point,
b) The limit and exposure to the reinsurer,
c) The class of insurance business,
d) The exclusions,
e) The underwriting limits of the reinsured and t
f) The past experience of the treaty.

These may be considered more fully as follows:

a) The lower the retention of the reinsured the larger the number of claims
   the reinsurer can expect to exceed it, therefore the higher will be the
   rate. The greater the limit to the reinsurer the greater his exposure and
   the higher the rate.

   The difficulty arises in determining the change in rate for successive
   changes in excess point or in limit. It is impossible to say that the
   premium rate for excess of Rs. 5,00,000 loss is twice that for excess of
   Rs. 10,00,000 loss.

b) The range of insurance business covered also affects the rate. Where a
   treaty covers a number of classes of business or where there is only little
   exclusion the risk assumed by the reinsurer would be greater.

c) The types of risk insured and the size of the sum insured would affect
   the degree to which the reinsurer would be exposed to claims.

d) The effects of the above would vary from reinsured to reinsured because
   of different underwriting policies and areas of business.
Therefore, the reinsurer attaches great importance to the past experience of the reinsured. The past experience will assist for an indication of the amount of risk the reinsurer can expect to undertake for various levels of retention. The reinsured provides information covering a period of years stating his annual premium income and the number and cost of all claims which have exceeded the proposed retention.

The claims amounts will include both amounts paid and amounts outstanding and each claim will be related to the year of occurrence - no matter when it was paid. This total amount of claims in excess of the retention is expressed as a ‘percentage of the insurer’s gross premium income’.

**Example**

If non proportional Treaty is for Rs. 95,00,000 excess of Rs. 5,00,000, then

<table>
<thead>
<tr>
<th>Year</th>
<th>Claims From paid</th>
<th>Ground Up Outstanding</th>
<th>Treaty Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Rs.6,00,000</td>
<td>Nil</td>
<td>Rs.1,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.3,00,000</td>
<td>Rs.9,00,000</td>
<td>Rs.7,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.4,00,000</td>
<td>Rs.2,00,000</td>
<td>Rs.1,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.24,00,000</td>
<td>(estimate)</td>
<td>Rs.19,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.10,00,000</td>
<td>(estimate)</td>
<td>Rs.5,00,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>Rs.33,00,000</strong></td>
</tr>
<tr>
<td>2009</td>
<td>Rs. 7,00,000</td>
<td>Nil</td>
<td>Rs.2,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs. 8,00,000</td>
<td>(estimate)</td>
<td>Rs.3,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.12,50,000</td>
<td>(estimate)</td>
<td>Rs.7,50,000</td>
</tr>
<tr>
<td></td>
<td>Rs.18,00,000</td>
<td>(estimate)</td>
<td>Rs.13,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.29,00,000</td>
<td>(estimate)</td>
<td>Rs.24,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.12,50,000</td>
<td>(estimate)</td>
<td>Rs.7,50,000</td>
</tr>
<tr>
<td></td>
<td>Rs.17,00,000</td>
<td>(estimate)</td>
<td>Rs.12,00,00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>Rs.69,00,000</strong></td>
</tr>
<tr>
<td>2010</td>
<td>Rs.18,00,000</td>
<td>(estimate)</td>
<td>Rs.13,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.31,00,000</td>
<td>(estimate)</td>
<td>Rs.26,00,000</td>
</tr>
<tr>
<td></td>
<td>Rs.18,00,000</td>
<td>(estimate)</td>
<td>Rs.13,00,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>Rs.52,00,000</strong></td>
</tr>
<tr>
<td>2011</td>
<td>Rs.19,75,000</td>
<td>(estimate)</td>
<td>Rs.14,75,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>Rs.14,75,000</strong></td>
</tr>
<tr>
<td>2012</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
</tbody>
</table>
The above claims information along with the corresponding premium for each of the year produces loss experience as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>GNPI</th>
<th>No. of Claims</th>
<th>Cost</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Rs. 40,00,00,000</td>
<td>5</td>
<td>Rs.33,00,000</td>
<td>0.825</td>
</tr>
<tr>
<td>2009</td>
<td>Rs. 42,50,00,000</td>
<td>7</td>
<td>Rs.69,00,000</td>
<td>1.623</td>
</tr>
<tr>
<td>2010</td>
<td>Rs. 46,00,00,000</td>
<td>3</td>
<td>Rs.52,00,000</td>
<td>1.130</td>
</tr>
<tr>
<td>2011</td>
<td>Rs. 50,00,00,000</td>
<td>1</td>
<td>Rs.14,75,000</td>
<td>0.295</td>
</tr>
<tr>
<td>2012</td>
<td>Rs. 56,00,00,000</td>
<td>NIL</td>
<td>NIL</td>
<td>-</td>
</tr>
</tbody>
</table>

The percentages shown in the example for each of the years in the above table give the cost to the reinsurer of paying claims during these years if he provided cover during these years.

These percentages are referred to as the ‘burning cost’, that is the cost at which claims would equal the excess of loss reinsurance premium.

However the above percentages obscure three important facts:

a) Most of these claims are still outstanding. Many could be settled at a higher cost, especially if the reinsured’s claims department has been optimistic in its estimates and kept lower outstanding.

b) Most claims are advised some years after the date of occurrence. These are known as Incurred But Not Reported (I.B.N.R.) claims. Liability classes of reinsurance are especially vulnerable to I.B.N.R.

c) The size of claim is rising, primarily because of increasing sums insured, increasing court awards and inflation. For this reason the reinsurer finds that the last five years’ experience produces a more realistic estimation of the future than the last fifteen or twenty years.

d) Obviously when all the years have eventually developed and fully closed, the percentages will change considerably - 2012 will not show a ‘NIL’ figure. Furthermore, some projection of the experience and trends will be required to fix a rate for 2013.
Rating of working excess of loss treaties is therefore not as easy as one would negotiate a ceding commission for a proportional treaty.

The reinsurer may quote a Flat Rate as a percentage which is applied to the gross premium income of the particular class of business. This basis is used for all types of excess of loss treaties - both “working” and “catastrophe”.

Of course, there may be no claims to examine on a ‘catastrophe’ excess and therefore no ‘burning cost’. The flat rate on ‘catastrophe’ covers is therefore a reflection of the underwriter’s experience in that class of business and what the market is prepared to pay. A Flat Premium amount may also be quoted instead of a Flat Rate.

When the rate is applied to the limit of cover it is known as “Rate on Line”. This assists the reinsurer to judge rating consistency as between various covers that he quotes.

It also provides indication of the number of years in which the limit can be recouped on the basis of the Rate on Line if the total of limit is paid as claim. The Rate on Line is lower for each successive higher layer of excess cover.

Because catastrophe covers should be remote enough not to be affected in any normal year, they are completely unsuitable for the burning cost method of rating. For the same reason, a period of a few years without claims does not necessarily justify a rate decrease.

The main factors in rating a catastrophe cover are:

i. Amount of retention (particularly in relation to the insurer’s retention under each policy);
ii. The cover required and degree of exposure to natural perils (earthquake, windstorm, etc.).

Catastrophe modeling based on stress scenarios and recoupment of catastrophe loss through premium collected over a period of 250 years are in practice to assist for determining premium for catastrophe excess of loss cover.

This method is also known as payback method and different from historical rating (burning cost method) or exposure rating (actuarial method).

6. Burning Cost

Burning Cost is the basis for rating working excess of loss treaty.

a) The rate for the first year of treaty is based on historical experience of losses “as if” the reinsurer “paid” them in the past.

b) At the beginning of the treaty year an estimate is made of premium to be collected by way of deposit. The rate of premium is agreed as a range:
i. Minimum rate payable by reinsured and
ii. Maximum rate chargeable by the reinsurer.

c) At the end of the treaty year the actual loss experience is established. Based on the loss experience the rate of premium as agreed is reviewed.
   i. If loss experience is lower than minimum rate as agreed then the reinsured pays the minimum rate of premium.
   ii. If the loss experience is more than the maximum rate as agreed then the reinsurer collects the maximum rate.

d) The premium so calculated is adjusted against the deposit premium.

It is usual to note that the deposit premium is also the minimum premium.

e) Pure Burning Cost

The formula for calculating pure burning cost is:

f) Loading

The Pure Burning Cost is loaded by a suitable factor to cover costs of acquisition, expenses of management, reserve for catastrophe, and element of profit. It is usual to note in practice a loading of 25 to 30%. Loading is done as follows:

Pure burning cost = \( \frac{(\text{Paid losses} + \text{Outstanding losses}) \times 100}{\text{Treaty period GNPI}} \) 

Or

Pure burning cost = \( \frac{(\text{Paid losses} + \text{Outstanding losses}) \times 100}{\text{Treaty period GNPI}} \)

The above produces the rate of premium to be applied to determine the treaty premium for adjustment at the end of the treaty year.

7. Exposure Rating / Pareto Loss Distribution Analysis

Various studies of loss distribution by size of loss have been made from actual statistics over a period of time. It confirms the commonly known fact that there are large number of small claims and small number of large claims. It has been overwhelmingly evident that when arranged in order of size the loss distribution produces a fairly consistent pattern which follows what is known as the ‘Pareto” law.

The information available from these loss distribution curves (also known as Pareto curves) is of immense value to an excess of loss underwriter as he is able
to immediately see the proportion of losses likely to be expected at any excess point. If he is satisfied with the original level of rates, he can take the same proportion of the premium as he is going to assume of the losses.

The following illustrative example of a loss distribution - Pareto - curve shows the normal shape or power of the Pareto curve. The shape (or power) of the Pareto curve alters with the class of risk or portfolio to be protected under excess of loss cover. It may be observed that larger proportion of total loss cost will occur in the lower range of sums insured.

We can use this curve to work out the premium for an excess of loss of cover for a risk with Total Sum Insured Rs. 100 Crores and cover requirement of Rs. 50 Crores Xs Rs. 30 Crores i.e. 50% Xs 30%. Hence:

i. 94.9% of Total Losses fall within 80% (50% + 30%)

ii. 56.8% of Total Losses fall within 30%

iii. Loss cost to Layer 50% Xs 30% = 94.9 - 56.8 = 38.1%

If the original gross premium at the rate of, say, 2 per mille, is Rs.20,00,000 the XL underwriter would require Rs.7,62,000 (i.e. 38.1% of Rs.20 Lakhs) as premium for the layer Rs.50 Crore Xs Rs.30 Crores.

Similar exercise can be conducted for different cover requirements.

8. Reinstatement

In practice a non-proportional treaty provides that the cover would deplete or cease upon payment of loss. It provides for automatic restoration of limit of cover subject to mutually agreed additional premium.
The number of reinstatements and the basis for additional premium are subject to negotiation.

Typically reinstatement provisions are relevant for catastrophe excess of loss covers. However this facility is extended to Risk XL cover on free of cost basis for the first or the first two reinstatements with any subsequent reinstatement bearing a stiff additional premium.

The additional premium may follow the treaty premium and be:

i. Pro-rated for the amount reinstated or
ii. Pro-rated for the balance of treaty period or
iii. Pro-rated for a combination of both amounts reinstated and balance of treaty period.

Any basis would be as negotiated and as agreed with the treaty reinsurer. In the case of excess of loss treaty based on ‘Burning Cost’ the GNPI for purpose of reinstatement would need to be agreed at the time of inception. As the reinstatement is pro-rated to amount and period it assumes the GNPI of the full year for purpose of reinstatement.

9. Claims

A claim falling within the scope of the treaty will be calculated subject to the provisions of the ultimate net loss clause which are applicable. All reinsurers participating bear their respective share. The reinsured cannot collect the whole loss from one reinsurer.

| Example |

If a Treaty is covering Rs. 40,00,000 excess of Rs. 10,00,000, then the loss will be distributed as under, between three reinsurers taking 10%, 40% & 50% shares respectively,

| Loss | Rs.15,00,000 |
| Legal Costs | Rs.1,00,000 |
| Total | Rs.16,00,000 |
| Loss to the XL cover | Rs. 6,00,000 |
| Reinsured pays | Rs.10,00,000 |
| Reinsurer A (10%) pays | Rs.60,000 |
| Reinsurer B (40%) pays | Rs.2,40,000 |
| Reinsurer C (50%) pays | Rs.3,00,000 |
| Total | Rs.6,00,000 |

Since excess of loss reinsurance is designed to be a source of funds at the reinsured’s immediate disposal, an expeditious system for reporting and collecting losses is required to be in place. Generally, the reinsured is required to advise his reinsurer as soon as he has reason to believe a claim will exceed the retention.
Due to escalation of certain types of claim, there may be a provision that the reinsurer be advised as soon as the claim exceeds the retention. The reinsurer will settle the claim within a few days of being advised that the claim has been paid by the insurer. In practice the reinsurer receives advice of losses outstanding at the end of the contract period. This enables the reinsurer to ascertain his outstanding commitment and to check on the developing experience.

10. Inception and Termination

As the contract addresses cover for loss it is important to specify Hour and Time zone. For catastrophe treaty use time zone of reinsured and for others, “standard time”.

Contract terms would include date of commencement and date of termination

Example

“This contract shall incept at 12:01 A.M. Indian Standard Time on July 1, 2010 shall apply to losses occurring during the term of this contract and shall remain in force until June 30, 2011, both days inclusive.”

As with proportional treaties, there must be a definite method for determining which claim falls within the scope of the excess of loss cover. The two methods are:

a) “Losses occurring” basis and
b) “Risk attaching” basis.

a) Loss occurring basis

On the ‘losses occurring’ basis, all losses occurring within the contract period are covered, no matter when the original policy was issued.

The fact that the original policy was issued before the inception date of the present contract, and while another excess of loss treaty was in force does not relieve the present reinsurer of liability.

Similarly, at termination, the reinsurer is not liable for losses occurring after the contract ends, although the original policy may remain in force.

He does, however, remain liable for losses which occurred during the period of the contract but which had not yet been settled - whether or not the insurer is aware of these claims at the date of termination.

The merit of this system is its simplicity. Each contract year is self-contained.
There is no portfolio taken over at inception, no portfolio withdrawn at cancellation, and no checking when a claim occurs to see when the policy was issued and what contract was affected.

b) Risk attaching basis

The “risk attaching” basis is used to avoid the hazard of the reinsurer cancelling a contract and leaving the insurer without cover for the duration of the policies.

Under this method, claims under policies issued or renewed during the contract period are covered no matter in which year they may occur. Thus a claim may involve the previous contract or the present one depending on the date on which the policy was issued.

The reinsurer will be at risk until all policies covered by the contract for that year of account have expired and all losses settled. Thus, if the business has a long run-off, the reinsurer has a long run-off.

The defects of this system are the long run-off and the difficulty of assigning a claim to the proper excess of loss contract year.

Marine and aviation excess of loss contracts, because of their nature to transact insurance on the basis of underwriting year use “risk attaching” method.

11. Specimen slip

Included herein below is a specimen of slip for catastrophe excess of loss reinsurance. This is included to provide insight into the making of a slip used in placement and confirmation of reinsurance cover.

This specimen can be modified and varied for different methods as discussed above for non-proportional reinsurances.

Importantly the headers stated within it would assist to put together a non-proportional c slip.
### Specimen of Catastrophe Excess of loss slip

<table>
<thead>
<tr>
<th><strong>Reassured</strong></th>
<th>ABC Insurance Insurer, Mumbai, India</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period</strong></td>
<td>Losses occurring during the period of 12 months commencing from 00.01 hours 01.01.2010</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Catastrophe Excess of Loss Reinsurance</td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td>Net retained account of the Reassured</td>
</tr>
<tr>
<td><strong>Exclusions</strong></td>
<td>Obligatory reinsurance treaties, pools and pooling arrangements, Nuclear Energy Risks Exclusion, War and Civil War Exclusion, Other exclusions as per Full Exclusion List attached</td>
</tr>
<tr>
<td><strong>Territory</strong></td>
<td>India, Nepal and Bhutan</td>
</tr>
<tr>
<td><strong>Limit</strong></td>
<td>To pay Rs.10,00,00,000 in excess of Rs. 50,00,000</td>
</tr>
<tr>
<td></td>
<td>Ultimate net loss each and every loss per event with other reinsurances inuring to the benefit hereon maintained in full force at all times even after automatic reinstatements and / or aggregate limits are exhausted. Subject to Two Risks Warranty.</td>
</tr>
<tr>
<td><strong>Reinstatement</strong></td>
<td>One reinstatement net loss per event. Warranted underlying at pro-rata additional premium as to amount.</td>
</tr>
<tr>
<td><strong>Premium</strong></td>
<td>Minimum &amp; Deposit premium of Rs.4,50,000 payable in advance in four quarterly installments and adjusted at expiry at 0.5% calculated on GNPI for the period of cover.</td>
</tr>
</tbody>
</table>
| **Conditions**| a) Ultimate Net Loss Clause  
b) Net Retained Line Clause  
c) Reinstatement Clause  
d) Extended Expiry Clause  
e) Run-off protection Clause  
f) 72 Hours Clause |
| **Wording**   | As expiring or as agreed by the Leading Underwriter. Reinsurers hereon agree to follow the said Leading Underwriter in all matters of construction and performance of this reinsurance. |
| **Estimated G.N.P.I.** | Rs.90,00,000 |
| **Information** | Details - to attach |

### Test Yourself 2

Which of the following is correct with regards to catastrophe cover?

I. It protects the insurer against known accumulations arising out of one event.
II. At least one risk has to be involved in a single loss before the excess of loss is affected.
III. The retention is normally more than the amount retained under each individual risk.
IV. The retention is normally less than the amount retained under each individual risk.
Summary

a) In excess of loss - Catastrophe cover protects a reinsured against an aggregation of losses arising from a common event such as: earthquake, flood, cyclone, riots, etc.

b) Stop loss method, mitigates the impact of an unbearable net loss ratio. This method applies to the loss ratio of the reinsured for any one class of business. This does not apply on the basis of per risk (working) or catastrophe.

c) Aggregate excess of loss cover would protect the total aggregate loss for a class of business.

d) In Whole Account Excess of Loss cover, a single composite cover is installed for protecting at one go, the whole business of the reinsured incorporating all classes of business.

e) Umbrella excess of loss cover is installed to assist to cover any gap in the various reinsurance arrangements made by a reinsured.

f) Non-proportional reinsurance does not protect risk exposure but protect loss as incurred by the reinsured.

g) In practice a non-proportional reinsurance provides that the cover would deplete or cease upon payment of loss.
**Answers to Test Yourself**

**Answer 1**

The correct answer is III.

When a single composite cover could be installed protecting at one go, the whole business of the reinsured incorporating all classes of business, such an arrangement is known as Whole Account Excess of Loss cover.

**Answer 2**

The correct option is III.

In catastrophe cover, the retention is normally more than the amount retained under each individual risk.

**Self-Examination Questions**

**Question 1**

In case of Excess of Loss - Working (per risk), insurance protection is sought by the ceding reinsurer for ___________

I. Mitigating Risk  
II. Mitigating Excess of loss  
III. Mitigating Proportional premium  
IV. Mitigating loss beyond its limit of retention

**Question 2**

Which of the following covers is sought for protection against an aggregation of losses arising from a common event such as flood?

I. Excess of loss- Working (per risk)  
II. Excess of loss- Catastrophe  
III. Stop loss  
IV. Aggregate excess of loss
Question 3

____________ is a method that mitigates the impact of an unbearable net loss ratio.

I. Excess of loss- Working (per risk)
II. Excess of loss-catastrophe
III. Stop loss
IV. Aggregate excess of loss

Question 4

Which of the following covers is installed to assist to cover any gap in the various reinsurance arrangements made by a reinsured?

I. Excess of loss -catastrophe
II. Stop loss
III. Whole account excess of loss cover
IV. Umbrella excess of loss cover

Question 5

____________ are also known as Working Excess of Loss covers and are used to reduce the insurer’s loss in respect of a single risk.

I. Ultimate net loss
II. Per risk
III. Catastrophe
IV. Burning cost

Answers to Self-Examination Questions

Answer 1

The correct option is IV.

In case of Excess of Loss - Working (per risk), insurance protection is sought by the ceding reinsurer for mitigating loss beyond its limit of retention.

Answer 2

The correct option is II.

Excess of loss-catastrophe is sought for protection against an aggregation of losses arising from a common event such as flood.
Answer 3

The correct option is III.

Stop loss is a method that mitigates the impact of an unbearable net loss ratio.

Answer 4

The correct option is IV.

Umbrella excess of loss cover is installed to assist to cover any gap in the various reinsurance arrangements made by a reinsured.

Answer 5

The correct option is II.

Per risk are also known as Working Excess of Loss covers and are used to reduce the insurer’s loss in respect of a single risk.
CHAPTER 5
RETENTIONS

Chapter Introduction

The proportion of risk that is retained by the cedant is known as retention. In this chapter we will learn about the process of setting retentions. We will also discuss in detail about retention for property, accident /liability, marine, aviation and life reinsurance.

Learning Outcomes

A. Setting retentions  
B. Types of retentions  
C. Retentions for property and engineering reinsurance  
D. Retentions for different lines of reinsurance  
E. Special factors for different lines of reinsurance
A. Setting Retentions

1. Setting Retentions

Proportion of risk that is retained by the cedant is known as retention. Insurers have different systems of retention and reinsurances for different risks and their related insurances.

   a) Management of an insurer set the retention limits at a level they can afford to risk their solvency.

      i. If management sets retention limits too low, they may find they are ceding too large a part of their premium income to their reinsurers.

      ii. If the retention limits are set high they expose themselves to retaining more when claims occur.

   b) The limits for retention are set out by the management and approved by it. These limits are the basis for implementing reinsurances as arranged and are referred to by the underwriter in his day to day decisions for determining retention for each policy as issued by his insurer. Reinsurance therefore follows the approved treaties and arrangements and decided through approved methods.

   c) There are no clearly defined formulas or rules to enable an insurer or indeed a reinsurer to decide on his retention. Experience shows that insurers and reinsurers have a wide variety of levels of retention without there being an evident reason. In the absence of technical formulas or rules insurers and reinsurers lay different emphasis to various factors that go into the calculation of retention and reach different conclusions.

   d) Within an insurer`s (reinsurer`s) office the acceptable level of retention will be seen differently by different officials.

      i. The Finance manager: whose priority is to protect the insurer`s liquid assets,

      ii. The direct business Underwriter: whose priority is to contain fluctuations in the insurer`s results, and

      iii. The Shareholder: whose primary concern is preservation and return on capital,

   All have different subjective assessment on the level for risk taking.

   e) There is therefore no concept of a correct retention but only an optimum retention acceptable to the diverse interests.
2. Factors influencing retention

a) The Insurer’s Assets, Capital, Free Reserves

The owner’s assets are inevitably low at the time of commencement of business and builds up over time. On the one hand, the owners do not want to lose the money they have invested. On the other, they expect an adequate return on capital in the form of dividends to themselves and other shareholders.

The retention therefore is assessed in the light of the need to preserve the asset base and the need to generate adequate profit. The insurer has to decide as to what percentage of its free assets is it willing or can afford to lose in any one year.

b) The Portfolio of risks

It can be objectively shown that the larger the portfolio the smaller the degree of fluctuation. On a very large portfolio, it is probable, on the basis of experience to predict within a few percentage points the technical result. On a small portfolio, the experience may be very bad or imperfect - there will be substantial differences from one year to the next.

The Reinsurance manager, with due approval of his management must establish his retention and his reinsurance programme in such a way, as to limit the fluctuations to a degree that is acceptable. The stability of a portfolio as it grows and in contrast to the relative volatility of a small portfolio is referred to as balance. The aim is not to eliminate fluctuation - this condition would in any case need 100% reinsurance or alternative risk financing - but to determine the degree of acceptable fluctuation.

In theory - “As the portfolio and its degree of balance grows the retention could increase proportionately - maintaining the same theoretical estimate of acceptable fluctuation”. In practice the growth of the portfolio is more than the growth of retention, reflecting both conservatism to retain less in the face of growth and a seeking of diminution in fluctuation. Simply stated an insurer who is happy to retain 50,000 on a portfolio of 500,000 would probably retain 60,000 when his portfolio had grown to 2,000,000.

c) Corporate liquidity

The Reinsurance Manager also assists for corporate liquidity when in consultation with his management and the Finance Manager he sets cash loss limit for his proportional reinsurance arrangements to make available cash when the immediate loss pay out is estimated to exceed available cash. Every insurer wants to maximise the return from his capital which is invested in financial assets.
He must however balance the portfolio of investments against the potential need to pay for admitted claims.

i. **Long term investments:** Evidently, investments of a long term nature are likely to yield higher interest but such an arrangement would mean illiquid asset or loss of higher interest due to premature closure.

ii. **Stock market investments:** Investment in the stock market increases the:
   - Cost of administration and
   - Exposure to capital loss

   But at the same time investors can earn higher return depending on their risk taking ability. Given this characteristic, stock market investments are used to leverage capital gain for a better return from the investment portfolio.

iii. **Investment in liquid assets:** Liquid cash are important, as it can be extremely embarrassing for an insurer to have insufficient liquid assets with which to pay a claim.

   Neither should it be necessary, nor even would it be desirable to have to sell assets - perhaps stocks and shares for this purpose. It may not be the best moment to sell and in some cases the cash would not be quickly realizable.

   Faced by this dilemma, the Finance Manager must be in a position to assess his optimum retention according to the liquid assets which he is willing to make available and given the support of cash loss from reinsurers.

The three decisions on what should be optimum retention from each of the three sources as discussed above are highly unlikely to be the same. Each represents a balancing of priorities by the individual for a department. The management would weigh the alternatives in order to arrive at the retention which represents the best solution for the insurer.

Having done this, there would need to be adjustment by the departments in question. Apart from the obvious compromise required between these elements of the insurer, other factors of a more general nature will come into the equation, such as:

a) **Competition and rating in the market**

   In highly competitive markets or markets where there is a discernible competitiveness, the whole calculation of profitability and fluctuation is distorted. If the portfolio increases in size, setting aside inflation, then it is probably because business has been obtained by cutting the rates of another insurer. In these circumstances, despite the “growth” the retention would be better left at existing levels.
b) Inflation

To preserve the calculated acceptable degree of fluctuation of results an increase in retention exactly equivalent to the economic inflation is called for.

Failing this the insurer’s retention is effectively falling back. Inflation also tends to cause higher claims without compensatory increase in sums insured.

c) State of the reinsurance market

In times of bad results, reinsurers would normally tend to require higher retentions with the clear intention of causing the insurer to have a greater involvement in the losses and, by implication, provoke them to initiate some remedial action.

There will however also be times when the supply of reinsurance exceeds demand. At such times, an insurer may be able to reinsure at terms which are so advantageous to him that he may consider it a shrewd financial move to reinsure as much as possible.

d) Legal imposition

Whatever an insurer’s perception of his prospects there are many countries which lay down rules and regulations intended to guarantee that an insurer will always be able to meet his liabilities. India is one of them.

Briefly, this normally imposes a framework to ensure that his liabilities are not excessive in proportion to his assets. This is called “solvency margin” regulation and relates the free reserves and assets of the insurer to the written premium income. Every risk written must be met with adequate assets.

Therefore, working within the legal framework, an insurer may well have to reinsure more and retain less anyway.

In addition to the regulation on solvency margin the law may determine that some assets are not allowable for calculation of solvency margin. It also stipulates certain minimum rules with reference to reserves.

Example

An unduly high percentage of stock and shares with high exposure to capital loss would be ruled as not allowable.
e) Other regulations

In some countries, the lack of hard currency to pay for reinsurance sometimes compels an insurer to adjust its retention upwards and with need for government to act as reinsurer of last resort.

Stock market investments: Investment in the stock market increases the:
- Cost of administration and
- Exposure to capital loss

But at the same time investors can earn higher return depending on their risk taking ability.

Given this characteristic, stock market investments are used to leverage capital gain for a better return from the investment portfolio.

Test Yourself 1

If management sets high retention limit, then __________

I. They may find they are ceding too large a part of their premium income to their reinsurers.
II. They may find they are ceding too small a part of their premium income to their reinsurers.
III. They expose themselves to retaining more when claims occur.
IV. They expose themselves to retaining less when claims occur.

B. Types of retentions

In practice, retention is a combination of the financial consequences of risk and event based losses. This incorporates requirements of rating, liquidity and return. In this the Actuary plays a determining role and takes responsibility to certify solvency of his insurer to the regulator.

There are two types of retention that are required to be managed:

1. Per Event
2. Per Risk

1. Per event retention

The Per Event retention is managed through reasonable estimation of financial consequences and by allowing a catastrophe reserve for funds to accumulate and be available over the long term.
Examples of event-based exposures can be:

- Possibility of accumulation within one branch.
- Possibility of accumulation between branches.

1. Accumulation within a branch

   a) Fire
      - Accumulation between risks - 2 or more Fire policies
      - Accumulation between policies - Fire/Loss of Profit
      - Accumulation arising from perils - Windstorm / Earthquake / Flood

   b) Marine
      - Accumulation between - Hull/Cargo
      - Accumulation between - Cargo/Cargo
      - Accumulation between - Hull/Hull

   c) Certain categories of insurance are exposed to high levels of accumulation potential that the market resorts to pooling,
      - Hail damage to crops
      - Nuclear risk
      - Terrorist attack

In this context, attention is drawn to geographical distribution. When a portfolio is widely distributed geographically, then the result will be more stable. Conversely, a geographical concentration will expose a greater proportion of the portfolio to a large catastrophic event.

In some branches, notably hail damage to crops, a balanced portfolio can be better achieved through international exchange of risks. In this way, the adverse experience of one country can be offset by good experience elsewhere.

2. Accumulation between branches:

   a) Fire / Liability / Engineering
   b) P.A. / Liability / Aviation
   c) Fire / Cargo
   d) Fire / P.A. / Life / Motor
   e) Motor / Third Party / P.A.

If a branch can be involved with another branch in a single event more often, then retention will have to be lower taking into account the potential combined loss of both branches.
CHAPTER 5

TYPES OF RETENTIONS

2. Per Risk Retention:

The Per risk retention can be managed through controlled and informed decisions. The Per Risk retention relates to the number of individual risks that could be hit by one event. The retention is scaled down accordingly.

\[ \text{Retention per risk} = \frac{\text{Retention per event}}{P.M.N} \]

\[ P.M.N. = \text{Probable Maximum Number of individual risks involved in one event.} \]

Retentions are inevitably scaled down in a variety of ways. A uniform retention on poor risks and good risks alike would not be in the insurer’s best interests. The level of retention is scaled down in a manner relevant to the quality of the risk in question with retention on a first class risk being much higher than that on a perceptibly poor risk.

Some alternatives can be as follows:

- Fixed retention according to category of risk
- Retention in inverse proportion to the applicable premium rates. i.e. premium rate is 0.5% so retention Rs. 2 crore on sum insured Rs.10 crores. Premium rate is 1.0% so retention Rs. 1 crore on above risk (i.e. relatively good risk - higher retention)
- Entirely discretionary level of retention from zero to maximum retention per risk

The insurer (reinsurer) will calculate his retention to achieve his corporate objectives such as market penetration and share. The prevailing characteristics of the reinsurance market will determine whether the limits of retentions will be acceptable to his prospective reinsurers. Often the proposed capacity is regarded as excessive and limits of retentions reviewed for refixation. On the other hand, if the reinsurance market is “soft”, then the insurer may have a virtual “carte blanche” to set its own terms with due care as to credit rating of the reinsurer. The reinsurance market has no controlling influence on an insurer in such circumstances.

The level of retention is largely a subjective assessment of a series of factors, ranging from the certain, the insurer’s asset base, to conjecture:

Will inflation increase?
- Will crime increase?
- Will competition hit premium levels? etc.

In some cases, a simple guess or feeling will guide the individual concerned. There are as many optimal retentions as there are insurance companies, but even if the “correct” figure is unidentifiable, it might reasonably be said that serious and considered judgment leading to the appropriate level of retention is arguably the most important decision that any insurer is called upon to make. Regulatory direction for solvency is a guide to an insurer in correcting the limits as he continues to write business over the years.
Retention is a combination of the financial consequences of

I. Risk and event based losses
II. Return and event based losses
III. Return and even based profits
IV. Risk and event based profits

C. Retentions for property and engineering reinsurance

1. Fixing retentions for Property insurance
   a) Schedule of retentions

   Each insurer draws up his schedule of retentions in property insurance.

   The first step is therefore to determine the level of optimum retention. Even though retentions are expressed in terms of sums insured, the logic leading to the determination of the schedule of retentions takes note of the loss exposures.

   The usual schedule of retentions is based on the following risk factors:
   i. Location
   ii. Separation
   iii. Process carried on
   iv. Class of construction and fire protection.

   The retention amounts in sums insured are so graded as to bring about similar loss exposure per risk.

   When dealing with large risks, it is not possible to apply a standard schedule of retentions to the best advantage. It is customary in such cases to have the risks inspected and to fix retentions individually.

   Statistics teaches us that the claims experience of any portfolio of risks will vary from one year to another. Stability in the claims ratio will depend on:
   i. The number of individual risks constituting the portfolio,
   ii. The standard deviation or, to put it more simply, the expected variation in the frequency of loss occurrences, and
   iii. The ratio of probable maximum loss by one event to the premium of the portfolio.
While a great deal of research has been made into the underlying mathematics the majority of insurers still follow a subjective method to determine what probable maximum loss exposure per event they should carry.

The schedule of retentions is designed to control exposures per risk. Hence it is usual to modify the schedule for cases where more than one risk can readily be affected by one event such as in congested areas and where catastrophe perils like:

- Earthquake
- Hurricane
- Flood or
- Even riot and strike are covered

The modification may either be:

- In the form of scaling down by a percentage the normal retention or
- By fixing aggregate limits area-wise.

Operating a schedule of retentions expressed in sums insured may involve a recalculation of the reinsurance position with change in sum insured. Sometimes the companies simplify the procedures by keeping margins to absorb such changes and fixing retentions in terms of percentages. Again, a schedule of retentions provides one standard sum insured retention for each type of risk.

b) Probable maximum loss (PML)

In respect of industrial risks, within similar insured’s, the PML exposure will vary materially from one case to another. This would mean that:

- On a better risk a smaller PML will be in order with higher retention and
- On an inferior risk a higher PML will be in order with lower retention.

Gradually the practice has grown of expressing the retentions and reinsurance cessions in terms of PML (Probable Maximum Loss). This gives some elbow room to the ceding insurer in underwriting a risk.

In respect of the large risks, reinsurers insist on full underwriting data (including Risk Survey Reports) together with sums insured so that they can make their own assessment of PML before accepting specific reinsurance.

In respect of automatic arrangements they may accept a smaller share than what they can, and there are even reports of reinsurers trying to introduce warranties tying down the ceding insurer to his PML estimates in the event of major losses proving the PML wrong.
c) Catastrophe cover protection

Ignoring for the moment the catastrophe hazards, a well-drawn schedule of retentions will give the anticipated loss exposure and there will be no need for any further reinsurance protection for the retained account.

However, catastrophe hazards do exist and cannot be ignored in designing the protection for the net account. Considering the conflagration hazard, it is usual to watch the total net retention within each conflagration area. Also, the retention per risk is fixed lower than the normal scheduled retention.

Where the number of risks underwritten in an area is large, this may result in unduly depressing the net retained premium of the insurer. Therefore, in practice, the exposure per event is controlled through a catastrophe cover protecting the net account and an increased aggregate limit per conflagration area is taken.

In considering catastrophe perils such as:

- Earthquake
- Hurricane
- Flood, etc.

The problem is the difficulty to determine accumulation.

The first question will be demarcating the area which can be considered as exposed to one event. The next problem will be the administrative effort of ascertaining the total net commitment within such area. If we consider sums insured, such figure may appear staggering.

It is much more difficult to ascertain the PML. Even for one risk the PML for fire and the PML for earthquake can be far different. However, assisted by data processing insurers have considered it expedient to draw up and monitor their total commitment zone-wise.

This brings us to the problems of fixing values for the following:

i. Net sum insured retention per risk for various types of risks;
ii. The aggregate sum insured retention per conflagration area or catastrophe peril exposure zone;
iii. The net loss retention to bear under the net account catastrophe cover protection; and
iv. The extent of catastrophe cover protection required.
CHAPTER 5
RETENTIONS FOR PROPERTY AND ENGINEERING REINSURANCE

Example

Let us assume that

a) An insurer has a net fire premium income of Rs. 100,00,00,000.

b) He may be willing to carry a net loss exposure of say Rs. 1,00,00,000.

i. The insurer will then make a study of the spread of his business by types of risks such as simple, commercial, industrial, etc. He may consider further subdivisions if data is available.

ii. The insurer will then make a special exercise to ascertain his commitments in specified conflagration areas and within certain defined catastrophe peril exposure zones. For each such area he will form an estimate of the probable maximum loss (PML) by one event as a percentage of the total commitment. Based on such an assessment the insurer will lay down an aggregate limit for the area concerned.

iii. He will then examine whether his commitment arises out of a few policies or from a large number of policies.

iv. Where it arises from a large number of policies, he will retain a smaller amount per risk than warranted by the schedule of retentions. Consider one conflagration area for illustration.

Illustration: The insurer may come to a conclusion that in a fire of foreseeable severity the PML is 30%. Then in this case:

1. He may decide to carry a net loss exposure per event of say Rs. 3,00,00,000.

2. He may then decide to carry a sum insured retention per risk of say Rs. 40,00,000 and an aggregate retention on the entire area of Rs. 10,00,00,000.

3. The insurer may negotiate a catastrophe cover with a loss retention of say Rs 2,00,00,000 and try for a cover of say Rs. 10,00,00,000. (i.e. Rs 10 Crores X Rs 2 Crores)

v. Going back to the net retention per risk which an insurer can carry, one has to determine the optimum figure and not necessarily the maximum figure.

Let us consider an insurer with a gross fire premium income of Rs.500,00,00,000.
An analysis of its portfolio may disclose the following pattern:

<table>
<thead>
<tr>
<th>Retention (1)</th>
<th>Accumulation (2)</th>
<th>Ratio (1) : (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,00,00,000</td>
<td>40,00,00,000</td>
<td>1 : 40</td>
</tr>
<tr>
<td>2,00,00,000</td>
<td>75,00,00,000</td>
<td>1 : 37.5</td>
</tr>
<tr>
<td>3,00,00,000</td>
<td>100,00,00,000</td>
<td>1 : 33.3</td>
</tr>
<tr>
<td>4,00,00,000</td>
<td>115,00,00,000</td>
<td>1 : 29</td>
</tr>
<tr>
<td>5,00,00,000</td>
<td>110,00,00,000</td>
<td>1 : 22</td>
</tr>
<tr>
<td>10,00,00,000</td>
<td>140,00,00,000</td>
<td>1 : 14</td>
</tr>
</tbody>
</table>

It can be seen that with increasing retention per risk, the net retained ratio does not go up in proportion. This means the retained premium is equally less retained. This affects the balance of the retained portfolio.

Even if the insurer has a capacity to carry a retention of Rs. 5,00,00,000 he may decide to keep the retention at Rs. 3,00,00,000 and secure a more balanced net account. He is, therefore, in a position to pay attention to the balance between liability and premium for the net account.

d) Accumulation of risk

What is described so far would entail looking at every policy in order to determine the retention. As an insurer grows in size, his retention capacity grows to such an extent that he is able to retain fully a large proportion of simple and commercial risks. Considering the expenses of administrative work, it is found worthwhile to discontinue the exercise of risk-booking such documents and instead to retain them blindly. For practical reasons it is necessary to fix a sum insured limit up to which all policies will be retained 100%.

When operating such a system, one comes across the problem of accumulation of values at risk through more than one policy and accumulation of risk in conflagration areas.

This is solved by either:

i. A quota share reinsurance on such policies or

ii. By a working excess of loss cover or both

The most suitable method will depend on the circumstances of the case.

In the illustration given above, if the insurer can afford to carry a maximum retention of only Rs. 2,00,00,000, he would be ceding out much of his gross premium. In such a case, the insurer is enabled to obtain working cover in excess of PML exposures at an economic cost.
The cost of such cover would of course be a major consideration in determining the utility of the exercise. It is common practice to convert such working covers to “per event” basis.

In the early years of an insurer’s development it is necessary to monitor and revise the retention upwards with growth of business. Such an exercise is administratively cumbersome. So the insurers sometimes augment their retention by keeping a share of their first surplus treaty for the net account. Such share can be increased progressively until it is time to revise the schedule of retentions.

e) Splitting of catastrophe cover into layers

The need for a catastrophe cover to protect the net retained account has been mentioned earlier. A technical assessment of the extent of cover necessary and the proper rate for the cover requires detailed data regarding the portfolio protected. Indeed it is necessary for every insurer to do such an exercise.

Competition for business has enabled brokers to place catastrophe covers on deficient or no data. The reinsurer quoting for the business is often left guessing. If a technical appraisal of the rate for a low excess catastrophe cover which has run claim free for a few years be possible, the chances are that it will be found to be inadequately rated.

Reinsurers are discovering that catastrophe covers are getting progressively more exposed. Inflation and consequent increases in values of property have made increased losses probable in case of even moderate losses. In several cases the first layer of a catastrophe cover combines a working cover as well and broking skill can seek to secure the catastrophe cover free of cost on the back of the working cover.

For marketing and rating advantages, catastrophe covers are normally split into layers. Reinsurers try to ask for detailed underwriting data to assess their exposures but these are usually not forthcoming in view of the administrative effort involved.

Of late, the reinsurers are growing more insistent and ceding insurers will have to undertake such an exercise. The reinsurers are particularly anxious to assess their exposures to catastrophe perils such as earthquake, hurricane, flood, etc.

f) First layer of catastrophe cover

The rating of the first layer of the catastrophe cover depends very much on:

i. The underwriting data and
ii. Past record of large losses.
There is scope for negotiation of rates. The higher layers tend to be rated on the limit of cover provided. Hence if an insurer buys too much cover he will lose premium but if the cover proves inadequate the loss can be disastrous. Reinsurers are growing increasingly concerned at the fact that they rarely share the fortunes of the ceding insurer on catastrophe covers. While the profit of the ceding insurer may be well secured, the reinsurer on the catastrophe cover may lose several years’ premium in one loss.

They seem to feel that ceding insurers should be made aware of this problem and compelled to support the catastrophe nature of such covers. To this end they may think of enforcing, say, a 10% co-insurance on the catastrophe layer and also restrict the reinstatement provisions.

g) Surplus in excess of first surplus treaty

The surplus in excess of the first surplus treaty limits is ceded through a second surplus treaty, Auto/Fac cover and facultatively. Rarely, a third surplus treaty exists. The maximum liability for the second surplus treaty is determined by reference to the premium ceded under the treaty. The optimum capacity of the treaty is determined by trying out different limits and noting the resultant premium to liability balance.

Where the portfolio of business is large and a large number of risks are ceded to the second surplus treaty, it may be possible to build up a treaty with a reasonable balance and even exchange it against incoming business although at less favourable terms than the first surplus treaty exchanges. So long as the second surplus treaty is not very unbalanced, reinsurers may be willing to accept shares without insisting on any bordereaux.

Auto/Fac covers derive their premium from a limited number of risks only. Reinsurers require some detailed information regarding the portfolio of business ceded there under although they may still agree to waive bordereaux. When the Auto/Fac cover contains only peak risks, it may be worthwhile providing bordereaux if a large reinsurance capacity be required.

h) Higher surpluses

While reinsurers on the first surplus and often on the second surplus treaties rarely spend time investigating the original business rate levels, reinsurers on the higher surpluses and on the facultative reinsurance examine the adequacy of rate levels.

Especially, when considering a facultative offer, reinsurers ask for detailed underwriting data and particulars of rates, etc. Thus, when placing the top surpluses on the large risks, the reinsurance capacity available will depend much on the underwriting data proving satisfactory. In some of the underdeveloped markets, the reinsurers or brokers even inspect the risks themselves and advise on risk improvements, rates, etc.
In the placement of the top surplus, selection of the reinsurer requires a great deal of care. Not only should the reinsurer be financially sound but he should also be known for his reasonableness and promptness. The expertise and knowledge of markets which the brokers possess is very useful in placing such surpluses. Further, it pays not to drive a very hard bargain in placing such covers so that the goodwill of the reinsurer/s is retained.

i) **Securing complete protection**

In considering the additional profit accruing from increased premium retention, one has to remember that losses up to the deductible are fully borne by the portfolio and only the excess over the deductible gets spread over.

Arranging working covers on a per event basis and dovetailing them into the catastrophe cover are measures aimed at securing complete protection at an economic cost. The cost of the catastrophe protection should be compared with the catastrophe element in the retained premium. There can be no standard formula to say what will be the right proportion since it will depend on the nature of risks of the portfolio.

j) **Group underwriting**

When insurers are individually small, their retention levels are very low. Where the insurers have a common management or common ownership they may resort to *group underwriting*. This means that they keep a retention representing the combined capacity of the group and operate a group reinsurance programme.

k) **Reinsurance of large risk**

When considering the reinsurance of the large risks, especially those where considerable facultative reinsurance is required, one notices the very substantial portion of the premium ceded out. In such cases one may expect to retain a much larger portion of the premium if reinsurance be affected on excess of loss basis for the risk. In practice this may only be possible for the share other than what is ceded to the surplus treaties since the treaty reinsurers may not agree to cession of a portion of the loss retention. When such an exercise is made, the excess of loss reinsurer on the risk makes his own estimate of the exposures and premium required.

It can happen that his thoughts do not correspond with the thinking of the underwriters who quoted the full insurance rate to the client. The result may be that the excess of loss reinsurer will ask for too big a share of the original premium and leave the ceding insurer with a totally inadequate premium to pay claims up to the loss retention figure. This is particularly so for risks with a real explosion hazard and also risks where catastrophe perils are covered.
2. Fixing retention for property - Engineering insurance

Engineering insurance business covers:

a) Machinery Breakdown,
   b) Boiler Explosion,
   c) Erection All Risks and
   d) Contractors’ All Risks business.

Many insurers do not have a sizeable premium in these types of risks.

Often, the sums insured for EAR or CAR policies are high and the exposures get further aggravated if Advance Loss of Profit (ALOP) / Delay in Start-Up (DSU) coverage’s are associated with the material damage covers.

Hence in this class of business it is customary to have a close liaison with specialist reinsurers in matters of rating and other technical matters.

Retentions are generally small and, although surplus treaties are formed, they remain unbalanced.

Commission terms are negotiable. It may appear as though reinsurers make a substantial profit on the treaties and facultative business but one must remember the technical service they provide.

It is also likely that the reinsurers may prescribe minimum level of retentions at which they would be comfortable to accept cessions. It is sometimes possible to keep an increased retention protected by excess of loss cover but the size of such retention and the cost of such cover are more difficult to standardise.

In property insurance, the usual risk schedules of retention is based on several risk factors. Which of the following risk factors is not considered while preparing a risk schedule of retentions?

I. Location
   II. Separation
   III. Demarcation
   IV. Class of construction and fire protection
Motor insurance department produces modest own damage claims but third party claim amounts can rise to quite high figures. Even the own damage claims are subject to accumulation hazard in respect of vehicle depots and catastrophe perils such as hurricane or flood. The most common method of reinsurance is through excess of loss cover. The loss retention is generally fixed higher than the value of total loss of one vehicle. With the costs of fittings going up, buses can cost quite substantial amounts.

Also special-purpose vehicles such as dumpers, cranes, bulldozers, etc., cost much. The portfolio of business may not be large enough to absorb the entire own damage loss on such vehicles to the net account and in that event excess of loss provides a working protection. The excess of loss cover is rated on the burning cost. Following the high level of court awards and the delayed advice of claims reinsurers suffered substantial losses on such covers.

Concepts of IBNR, allowing for inflation and linking the cover with the cost of living index, etc., were considered. In earlier years, it was possible to obtain unlimited cover but this practice was discouraged. These covers continue to be rated on burning cost basis with some adjustments. If the burning cost is consistently more than a particular percentage, it will help to save premium equivalent to the loading on the burning cost if, in addition to the per event deductible, an aggregate deductible is also borne by the insurer.

Workmen’s compensation insurance is another class of business well suited for protection by excess of loss covers. Accumulation hazard is much greater here because a large number of workmen will be exposed to risk at one place. Subject to this the comments made in respect of motor insurance apply here also.

It should be remembered that when the whole account is protected by a working excess of loss cover with a short payback period, the gross underwriting result gets fully reflected in the net results over a period. Hence it is wise to reinsure out on proportional basis any risks carrying high exposure or risks where the rate level is considered inadequate.

Among the other classes of miscellaneous accident business, perhaps the more important are:

- Personal Accident,
- Cash-in-Transit and
- Burglary.

The normal method of reinsurance in the Miscellaneous Department is surplus basis. While burglary is capable of reinsurance on excess of loss basis, the other classes will require substantial premium on excess of loss basis.
Personal Accident business carries catastrophe exposures in respect of certain types of risks such as group PA policies and passengers in a vehicle or aircraft.

The level of retention is based on the total miscellaneous accident premium base. It is usual to keep reduced retentions for the more exposed classes with small premiums such as cash-in-transit, jewellers’ block, etc. Usually a single surplus treaty is able to absorb the entire available surplus.

1. **Fixing retention for marine - Cargo reinsurance**

   a) **Analysis of gross portfolio**

   Before considering the best suited reinsurance arrangement one must analyze the gross portfolio. The following aspects are important in such analysis:

   i. Whether the cover granted in the majority of cases is on all risks terms or limited terms.

   ii. Whether the pattern of exposures per vessel shows a wide variation or is clustered around a certain level with a minority of cases showing materially different exposures.

   iii. What is the nature of cargo insured and, if possible, a breakdown of the total premium by broad categories of cargo.

   iv. A breakdown of the premium by the age and size of the vessels carrying the cargo.

   v. Whether the rates of premium are generally satisfactory.

   vi. The number of reporting offices and the feasibility of fully recording commitments in the voyage register.

   b) **Quota share arrangement**

   A quota share treaty can be a satisfactory solution only where the pattern of exposures per vessel shows clustering around a certain level.

   In all other cases a quota share arrangement does not permit full utilization of the retention capacity of the insurer.

   Since insurers generally find a wide variation in values per vessel in their portfolio, hence we will restrict ourselves to considering the surplus basis of reinsurance.
c) **Determination of the retention that can be supported by portfolio of ceding insurer**

The first step is to determine the retention which can be supported by the portfolio of the ceding insurer. Loss exposures fall into two distinct classes, viz.

i. Total loss and

ii. General average which affect all cargo on board the vessel and particular average claims which need not affect all the cargo.

Cases of several consignments suffering damage in one voyage either by a common cause or independent causes are not unknown but these do not take the same magnitude as GA or total loss claims. Retentions are fixed at aggregate sums insured per vessel through all documents. Since the probability of total loss or GA claims by a smaller or older vessel is higher than by a larger or new vessel, the retention is normally scaled down for smaller and older vessels.

This then gives us a schedule of retentions with limits per bottom for different sizes and ages of vessels. It is not usual to distinguish retentions by type of cargo in the schedule of retentions although it is an important factor in the original process of underwriting.

**d) Excess of loss protection**

Assuming the absence of any excess of loss protection for the net account, the top retention will be fixed with reference to the net premium income of the portfolio, maybe at 1% or 2% of the net premium. This will mean that retentions on individual consignments will be very small and the full capacity of the insurer will not be used except in the event of a total loss.

Where the majority of consignments are insured subject to wider terms such as all risks only, the FPA portion of the premium will carry the higher exposures. This has given rise to the practice of insurers raising their retention per vessel to higher figures and protecting the retained liability against the larger claims through working excess of loss covers. We can visualize an insurer raising his retention to say 5% or 6% of the net premium and protecting it by excess of loss cover in excess of say 1% or 1.5% of the net premium.

What the net retention subject to excess of loss protection should be is again a question to be decided after studying the pattern of exposures in the portfolio. If, for instance, raising the net retention per vessel from say Rs. 5,000,000 to Rs. 7,500,000 results in only a 5% increase in net premium the exercise may not prove worthwhile after taking into account the additional cost of excess of loss protection.
It is common practice to place the excess of loss cover on per voyage per event basis so that it also provides protection for accumulation on shore. The extent of cover necessary is determined after taking into account the pattern of exposures.

It may be found expedient to split the cover into layers. A technical rating of the basis cover would require a study of the working exposures and a calculation of the pro-rata premium for total loss cover and a suitable extra for the large GA claims. A further premium is added on for the shore accumulations. Such data is rarely forthcoming in practice and reinsurers have to fall back on the claims record to derive their rates.

It is possible in such cases to secure a premium for the excess of loss cover which does not adequately provide for the larger losses or exposures on shore. Again, the impact of inflation on the increasing values and size of claims may not be reflected in the premium which is based on past loss record. The higher layers are rated on a subjective assessment of the accumulation hazard at ports.

e) Voyage register

The pattern of reinsurance requires maintenance of a voyage register in which individual insurances are entered. Again every claim has to be entered in the voyage register to determine recovery due from reinsurers. Considering the small average premium and average claim per consignment, this administrative operation can be rather expensive.

When the premium base is very large, it may save administrative work to retain documents up to a particular size and keep a slightly lower than possible retention per vessel derived out of documents of a larger size which are entered in the risk register.

It must be cautioned that unless the insurer has a very thorough understanding of what he is doing, such an exercise may result in absence of valuable data regarding his portfolio and his reinsurance programme may get based wrongly. When this method is adopted, the imagination of the excess of loss reinsurer is taxed to put a value on the accumulations through non-risk booked documents and it may happen that the reinsurer will play safe and charge a higher rate.

The primary objective in designing surplus treaties in the cargo department is to secure automatic reinsurance facility per bottom up to the maximum foreseeable extent. The commitment per voyage gets established only after all documents are entered in the voyage register, by which time the voyage may already have been completed. Hence automatic reinsurance facility is essential. Facultative reinsurance is only possible where the insurer is advised in advance about a very large consignment by one vessel.
2. Fixing retention in marine - Hull reinsurance

Marine hull insurance portfolios of most insurers in the developing countries are very much unbalanced. Hull insurance falls into two broad categories, viz.

a) Ocean-going vessels, including bulk carriers, tankers and OBOS; and
b) Local crafts such as barges, lighters, launches, tugs, dredgers, trawlers etc.

The problems of reinsurance are different for these two classes of vessels. While reinsurers are not that particular to control the rating or claims processing of local crafts, they are keen to look into these aspects for the larger vessels. Only some countries have been able to achieve the freedom of rating and handling claims for the larger vessels but their approach in the matter is kept under review. Reinsurers, especially in the London market, like to be reassured that the Joint Hull Formula will be followed.

Insurers with a substantial hull premium are able to exchange business against their first surplus hull treaty while others have to be content with obtaining the best possible terms for their business. The first surplus hull treaty limits are determined at the highest possible level consistent with the objective of securing the best possible terms. There is an agreement existing in the London market although not strictly followed, limiting the total permissible commission on hull reinsurance. Profit commission terms are negotiable, and fairly high P.C. terms for business with good profitability, can be achieved.

Insurers generally operate a schedule of retentions based on the tonnage and age of the vessel. The top retention may be 1% to 2% of the net premium although a higher retention may be necessary based on the combined cargo and hull premium where the hull portfolio is small.

It is rare to see an insurer carry high retention protected by a working excess of loss cover because a very substantial portion of the hull premium is required to pay total loss and large partial losses. Hence the excess of loss cover will cost a pro-rata premium like a quota-share. In normal course, when this premium is ceded under the surplus treaty, it imparts greater stability to the results, and in years of good total loss experience, this section of the premium adds to the profit under the treaty and earns profit commission.

3. Fixing retention in aviation insurance

Aviation and special types of liability business call for rating expertise not available with many ceding insurers. These risks therefore tend to be rated in consultation with reinsurers and bulk of the reinsurance cover is placed facultatively with low retention. Though the utility of group underwriting arrangements and pooling arrangements involve loss of individual freedom to some extent, the benefits which accrue to small and medium size companies are far more important.
It enables the insurer to enhance its retention capacity and improve the spread of its net account at one go. It also enables the companies collectively to create technical expertise so necessary for the special classes of business. Finally, it tempers competition for business with due regard for maintaining proper rate levels.

4. Fixing retention in life reassurance

Life insurance premium and therefore its business is more of savings than risk. So much so the reinsurance premium in life business constitutes around 0.15% of the total written premium in India.

Very little reinsurance is effected by the Life Insurance Corporation of India. Its reinsurance is a surplus treaty which takes sum insured exposures on individuals in excess of USD 100,000. Private life insurers do rely upon reinsurance and usually have a limit of retention of Rs.5,00,000 per life.

Two major key risk exposures arise in Keyman insurance and accumulation and require reinsurance protection. Keyman insurance protects business debts of a firm which is dependant on a key individual for continuing its business.

In view of which the sum insured would not be related to the value of a person but the value of his loss to his firm and the premium is paid by the firm as a business expense. In India we have the instance of a film director being substantially insured.

Accumulation is when several people are affected by a loss there is an accumulation of insured persons; also, where several policies arranged in respect of one and the same individual are affected, one speaks of a ‘policy accumulation’. Accumulation control is therefore essential to determine need for reinsuring.

Test Yourself 4

ABC Company is seeking insurance for its tanker, an ocean going vessel. ABC Company will have to seek insurance under ________

I. Property insurance
II. Marine hull insurance
III. Marine cargo insurance
IV. Life insurance
E. Special factors for different lines of reinsurance

1. Property Reinsurance

Property reinsurance mainly deals with many different classes of original insurance business. Physical loss or damage to real and personal property and the financial consequences arising as a result of such loss or damage, as covered in the original policy, are fully covered by the reinsurance contract.

The principal classes of property insurance are:

- Standard fire & special perils insurance,
- Engineering insurance (which includes EAR/CAR together with or without Advance Loss of Profits,
- Machinery Breakdown,
- Boiler Explosion,
- Machinery Loss of Profits,
- Construction Plant/Machinery,
- Computers/Electronic Equipments,
- Civil Engineering Completed Risks etc.,
- Industrial All Risks insurance,
- Theft & Burglary Insurance and
- Property All Risks packages for high value / high exposure mega risks.

a) Fire Reinsurance

i. Proportional treaties

In view of a large number of risks usually involved fire insurance business is well suited for protection by a proportional treaty programme. The sheer volume of the business by number of risks provides an in-built spread of risks. Also fire losses of varying sizes occur regularly.

The proportional treaties, under these circumstances, provide an effective means for stabilization of result for the portfolio. From the point of view of the ceding insurer the volatility of the gross direct business is not reflected in his result net of reinsurance. The result net of reinsurance remains stable over time. The net retained business can be protected by appropriate working and catastrophe excess of loss covers.

This means that in a year of higher than average fire losses in large risks, a larger recovery will be made from reinsurers. The primary objective of quota-share and surplus treaties is to iron out the variation in results that occur from year to year. In addition the ceding reinsurance commission received on proportional treaties adds to the net results of the ceding insurer.
ii. Setting up a table of limits

By evaluating the types of risks underwritten and the hazard in their locations, an insurer sets different retentions according to the degree of exposure to loss involved.

Evaluating risks in this manner is called setting up a table of limits. Depending upon the composition of the insurer’s portfolio, such tables can vary from a simple one with only a few classes to very sophisticated one with many sub divisions.

Example

A simple example of such a table with specimens of risk classes can be as under: (the Zone1 in the table is the least exposed whereas Zone 3 is the most exposed). The maximum retention of the insurer on any one risk is decided at Rs.2,50,000.

Table of Retentions (amounts in Rs.)

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Location Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zone 1</td>
</tr>
<tr>
<td>1. Offices</td>
<td>250000</td>
</tr>
<tr>
<td>2. Light engineering works</td>
<td>200000</td>
</tr>
<tr>
<td>3. Textile mill</td>
<td>150000</td>
</tr>
<tr>
<td>4. Chemical manufacture</td>
<td>75000</td>
</tr>
</tbody>
</table>

This, or a similar table would form the basis of deciding on net retention of an insurer and the reinsurance programme would be built upon this.

In its very simplest form this table can be used for fixing net retention and any amount in excess can be placed facultatively. The table can also be used as a base for a quota-share or surplus programme.

iii. Excess of loss covers

Fire insurance business is vulnerable to losses arising on a single large risk, from natural perils and to an abnormal increase in aggregate losses during a revenue year.

Therefore it would be necessary for an insurer to avail of any of the main forms of excess of loss covers as follows:

- Facultative excess of loss to limit commitment on a single risk,
- A working ‘risk’ excess of loss treaty as an alternative to proportional treaty,
- A catastrophe excess of loss cover to protect against accumulation losses from one event,
- A stop loss treaty to protect income against unusually high frequency of losses in a year.
b) **Engineering reinsurance**

i. The main problem in this class of insurance business is a disproportion which exists between the sums insured in the various engineering lines.

Whilst “Machinery Breakdown”, “Contractors’ Plant” and “Computer” insurances present a relatively balanced range of sums insured, the cover in “Erection All Risks” and “Contractors’ All Risks” can vary between modest and extremely high amounts and the exposures get severely aggravated when upon insistence from project lenders, highly vulnerable covers for Advance Loss of Profits / Delay in Start-up are to be purchased.

It may not be uncommon to find that estimates of single loss exposure on such covers far exceed the gross direct premium written by an insurer in his Engineering Department.

ii. Secondly, the EAR/CAR covers being for periods longer than a year and with no possibility to review the terms of policy at mid-term, in respect of large complex projects the problems for the reinsurer gets more complicated due to the nature of long term commitments on individual projects.

Hot testing and commissioning phase of projects at the end of many years of construction and erection bring with them enhanced exposures. The Advance Loss of Profit / DSU are considered as exposure for total loss [100% PML].

iii. In the engineering insurance automatic reinsurance treaties offers capacity for highly exposed risks alongside those considered normal. In addition the highly exposed risks have to be reinsured facultatively.

iv. The most frequent method of the cover is the surplus. However, and especially for insurers which do not yet have a great deal of experience, combined quota share and surplus may be used.

v. The types of insurances covered within the scope of the treaty must be enumerated one by one and the underwriting material form an integral part of the treaty. It is not unusual for the reinsurer to provide the policy wordings and rating guidelines with the corresponding underwriting instructions. Many a times the reinsurer prefers to have the construction project sites visited by their own engineers for monitoring.

vi. The leading reinsurer furnishes the insurer with the policy conditions and rating principles for the business coming under this treaty; the insurer binds itself to apply their rules and premium rates. Before provisionally or definitely accepting any risk outside the scope of these rating principles, the insurer shall obtain the reinsurer’s approval.
vii. In certain cases the reinsurer reserves the right to approve the terms before the policies are issued. The treaty thus becomes “
obligatory/facultative”.

viii. The reinsurer may also reserve the right to take part in the settlements of claim by inserting a clause similar to the following in the agreement:

“The insurer shall settle claims within the conditions of the original policies and within the terms of this treaty, or effected by compromise agreement, shall be binding upon the reinsurer. However, the insurer undertakes, for its part, to settle or refuse a claim as if it were entirely for its own account and unreinsured.

Claims affecting this treaty are settled in consultation with the reinsurer whenever the claim is likely to exceed the amount specified in the Special Conditions. This consultation shall commence at once whenever a claim of aforementioned magnitude is brought to the knowledge of the insurer.”

ix. Some policies include the risk of third party liability which is reinsured in the same proportion as the material damage cover. The reinsurers normally restrict their third party exposures to moderate limits and suggest that higher limits be separately insured in the Liability Dept. of the insurer. Equally reinsurers are very careful when the TPL exposures cover the territories of USA & Canada.

c) Industrial All Risks reinsurance

This type of cover is normally a combination of fire & perils, and breakdown perils; at times including business interruption and burglary exposures. As long as such a cover deals with normal exposure risks, reinsurance support can be arranged on the lines of fire reinsurance.

However, if risks with high exposure to loss like Petrochemicals or Explosives etc. are involved, the treaty capacity would be restricted to moderate amounts and a major portion of the risks will have to be facultatively reinsured. In addition the net retained account is to be protected with suitable excess of loss cover.

d) All risks property package reinsurance

These types of covers are basically issued by a direct insurer on a very selective basis since they relate to multi-risk exposures from different lines of insurance and for very large values. Such “All Risks” Packages often include Marine /Off-shore /Liability & Business Interruption risk exposures in addition to the physical damage exposures on all real and personal property of the insured used in connection with his overall business which includes a range of diverse activities. The cover operates on a selective geographical territory basis rather than on a fixed location basis.
This totally changes the risk perception as both the insurer and his reinsurer have to deal with multi-line / multi-location / multi-occupancy exposures. Each segment of such a package is otherwise reinsurable separately under different departments.

However the department-wise reinsurance arrangements of the insurer cannot be utilized for the simple reason that an “All Risks” package offers cover on a seamless basis and there may be situations of some losses which would not be covered under traditional separate insurances but are covered under the package. In short the reinsurance should fully correspond to the direct policy cover and there should be no gaps between the original insurance and its reinsurance.

Though it is often argued that the multi-line cover concept offers spread of risks for the insurer / reinsurer it must be remembered that this is not a spread of risks of similar nature but a combination of various exposures. Secondly, because of the volume of business under one policy, we may see that such packages are very competitively priced and decrease the premium base. Under the above situation, such a package is not the matter of interest for the quota-share and surplus reinsurance but will be fully driven by facultative reinsurance considerations.

The terms, conditions and all aspects of the package are controlled by the reinsurers. The markets for such covers with enough capacity are limited in number and at times full proportional facultative reinsurance support may not be available. In that situation the insurer has to select a combination of facultative and excess of loss covers while ensuring that his net retention is not unduly overburdened.

2. Accident / Liability reinsurance

This class of insurance has the largest range of risks written. The range includes motor, personal accident, burglary, jewelers` block, non-traditional insurances and a range of liability insurances covering risk of legal exposures to third parties and public, from products sold, as an employer, as a director or executive, as vendors of software, as stock exchanges, banks and financial institutions. The form of reinsurance as used is mostly the quota-share in conjunction with a working excess of loss.

Example

Motor insurance is an example of the above forms. In India, all motor insurances have been reinsured on working excess of loss basis. Rating is based upon burning cost loaded for reinsurer`s management expense.

High value vehicles are insured on quota-share basis to spread the risk of private cars and commercial vehicles with high values.
Personal accident requires reinsurance for high net worth individuals and for accumulation as in a single aircraft. These are addressed through a combination of working and catastrophe excess of loss reinsurances.

In India it was not the practice to include personal accident insurance for excess of loss covers and these risks were entirely retained by the local insurers. Events of Gujarat earthquake and terrorist attacks on WTC, New York, required reconsideration in this approach.

Experience in respect of other insurances varies from country to country.

**Example**

The risk of burglary exposure is attended differently both within a country and between countries.

At one extreme, a simple guard provides security and is considered to be sufficient, and at the other extreme, there is electronic surveillance, frisking and restricted access.

The law and order situation varies depending upon the seriousness and extent of attention by political leadership and the authorities. The values and size of assets involved are material, given these variations.

**Example**

Another example of different risk levels is in respect of employer`s liability.

This is not an issue under common law in a country like India, but is of utmost concern in a country like the USA which has an extreme level of liability consciousness among its population and the judicial system which employs a much different criteria than the rest of the world in its approach towards granting liability awards.

This type of difference in legal situations raises issues of concern in respect of software exports wherein the overseas vendor requires insurance protection for not less than USD 1 million for product liability.

The Indian market requires reinsurance support to insure the limit of USD 1 million. Reinsurers are unwilling to provide protection even if they have investigated the proposal in depth, involving their experts, and found the risk reinsurable.

All professional, public and product liability covers require detailed proposal to be completed. The information as provided is scrutinised for vulnerable risk exposures. The cover is negotiated with appropriate restrictions and rating.
This process is driven by the reinsurer who is quoting as a lead for the cover. The form would be quota-share and the percentage determined by what amount the insurer can actually bear if a total loss of 100% of limit occurs.

a) Marine reinsurance

i. Marine hull reinsurance

There is one major difference between marine insurance and most other non-life classes of insurance. The items to be insured, including related liabilities, are mobile and, in some instances, travel at high speed.

Two ships or two cargoes starting on opposite sides of the world can, within quite a short period, be sitting side by side in another part of the globe. The chances of a collision between two sister ships whose voyages started many thousands of miles apart are very small and yet in recent years just such events have occurred.

A marine underwriter will actually see very few, if any, of the ships and cargoes that he insures. He depends very much on good faith on the part of others, but it is extremely easy for him to be misled or even defrauded. Also, the number of different types of ship and of cargo, and the varied perils to which they are exposed, has meant that over many years, specialist types of cover have been evolved by marine insurance markets.

By the same token, marine reinsurers have to adopt both attitudes and practices which differ from those of the non-marine market. It is therefore correct to look at proportional treaties very much through the eyes of a marine reinsurance underwriter.

The range of values and items requiring marine insurance is enormous and the sheer size of some of the sums involved can be mind boggling. It must be borne in mind that in each case these vessels and cargoes can be totally lost and the stabilising of an insurer’s results by reinsurance may well mean the difference between solvency and a bankruptcy after a major loss.

Marine hull insurance portfolios of most insurers in the developing countries are very much unbalanced. Hull insurance falls into two broad categories, viz.

✓ Ocean-going vessels, including bulk carriers, tankers and OBOS; and
✓ Local crafts such as barges, lighters, launches, tugs, dredgers, trawlers etc.

The problems of reinsurance are different for these two classes of vessels. While reinsurers are not that particular to control the rating or claims processing of local crafts, they are keen to look into these aspects for the larger vessels.
Only some countries have been able to achieve the freedom of rating and handling claims for the larger vessels but their approach in the matter is kept under review. Reinsurers, especially in the London market like to be reassured that the Joint Hull Formula will be followed.

ii. Marine cargo insurance

Marine cargo business for most countries is predominantly ocean transit and air transit but for countries like India a substantial portion of the premium is derived from inland transit by rail, road or waterways. We will consider ocean transit here.

Policies are for individually small amounts but since several consignments are carried in the same vessel accumulation of liability is an important feature. Accumulation of risk can also occur for consignments carried by more than one vessel at the origin or destination ports.

Hence for reinsurance, an insurer is concerned with accumulation of risks per vessel. This implies that a voyage register should be maintained with one folio for every voyage and all commitments in respect of that voyage recorded thereon. The insurer must be in a position to achieve this capability.

The following aspects are important in such processing:

✓ Whether the cover granted in the majority of cases is on all risks terms or limited terms.

✓ Whether the pattern of exposures per vessel shows a wide variation or is clustered around a certain level with a minority of cases showing materially different exposures.

✓ What is the nature of cargo insured and, if possible, a breakdown of the total premium by broad categories of cargo.

✓ A breakdown of the premium by the age and size of the vessels carrying the cargo.

✓ Whether the rates of premium are generally satisfactory.

✓ The number of reporting offices and the feasibility of fully recording commitments in the voyage register.

During the last decade cargo reinsurers especially on the excess of loss covers became aware of the very substantial accumulations which can occur under war risk cover even in respect of localised hostilities.
They felt that war risk cover could no longer be considered as a mere extension of the basic cover and should be considered as an important cover in its own right. This resulted in reinsurers asking for a separate rate for the war risk premium under the excess of loss cover.

The increased rates and reinstatement terms were found uneconomic in most cases and it was found more advantageous to switch over to quota share reinsurance on war risk only. Likewise, difficulties arose with regard to definition of one event in respect of war risk losses under the excess of loss covers.

iii. Reinsurance methods

Whilst for marine hull reinsurance surplus treaties can be considered as more common than quota-share the combination of quota-share and surplus is frequently used in marine cargo reinsurance. Administrative considerations are generally predominant in determining the system to be used. While marine hull does not pose major difficulty in establishment and control of accumulations, control of marine cargo accumulation poses practical problems defying easy solutions.

There is one fundamental difference in the manner in which a marine surplus functions and this must be noted. It was said for property reinsurances that if the risk ‘is not a very good risk the insurer may keep less than (Rs.x) and the amount to be reinsured will therefore increase’ in case of treaties without a line limitation. This selection against a reinsurer is not permitted in marine reinsurances.

The ceding insurer on every occasion must keep a full retention before reinsuring. If the ceding insurer wishes to retain less than his full retention then the cession to the treaty must be reduced in exactly the same proportion regardless of the treaty limit.

b) Aviation reinsurance

Aviation reinsurance uses all forms of reinsurance protection developed over the years. The problems associated with insurance of an aircraft are not unique but it is unusual to find a class of business where they all occur at once. The aviation insurance market is truly international as risks are placed in all countries through exchange of reinsurance. This makes for a competitive and free market on worldwide basis. Reinsurance plays a major part in aviation insurance as around 80% of any aircraft will be reinsured.

The values of the aircraft along with settlement of passenger and third party liabilities reach USD 750 million. Accumulation of risk is a very real problem for the aviation insurer. This occurs in two ways. The first is the risk of two or more aircraft being at the same place. Whether on ground at airports or while flying along the air-corridors there is a risk of collision.
The second type of accumulation arises from insurance policies particularly those for airline hull and liability and aviation products liability. These accumulations are severe and unquantifiable and only an actual loss evidences the potential.

Technology risks have been absorbed by the market during its entire development. When a new aircraft or satellite comes into service there are generally untried components or manufacturing processes.

The main forms of coverage for airline risks are placed on a policy for the operator’s whole fleet. There used to be separate policies for hulls and liabilities but over the years to save on administration combined hull and liability policies have been produced.

These policies would insure hull on an agreed value basis and all liability coverages on a combined single limit (CSL). Hull war risks are normally covered under a separate insurance policy where the values are the same as under the Hull All Risks. This coverage can also be provided on the Hull All Risks policy as a separate section.

The reinsurance market has become heavily involved in the insurance of aviation risks. This is because a large number of risks emerge from the direct market by way of reinsurance due to the lack of spread and high values involved. Around 80% of the total direct insurances is found reinsured either facultatively or through a treaty.

**General exclusions:** Reinsurers limit the character and conditions of business they accept under proportional treaties by making exclusions.

The general exclusion list is as follows:

i. **Hull war:** Under main account treaties, Hull War is not generally acceptable. It is protected under a separate reinsurance programme.

ii. **Long term policies:** Policies exceeding a period of twelve months are excluded. This resulted from a trend of three year policies which were affected by volatility in the world reinsurance markets. Reinsurers considered this too long a period between rating and review for renewals.

iii. Inward treaties

iv. Tonners

v. **Brokers Binders and Line Slip:** Except Line Slips where risks are rated by a leading London underwriter.

vi. Profit Commission, Good Experience Return or Deductible Insurances.

In many markets aviation business is pooled. These pools are formed by local companies to unite their efforts to help solve technical and capacity problems.
e) Life reassurance

Life insurance has been an area of significant expansion over the last 20 years, exceeding economic growth in industrialised countries by 5% and in emerging markets by 9% on an annualised basis. Against the backdrop of global ageing, in which both governments and business work to cope with ageing populations, concern for financial protection through life insurance is growing.

Reinsurance follows suit in following ways:

i. Sharing the knowledge of market experience worldwide with the reassured,
ii. Providing expertise in understanding mortality and morbidity in determination of rates and reinsurance.

The general approach of a reinsurer respects the life insurer`s need not to have too great a reliance on reinsurance.

A key element is in assessing the true value of assets recoverable from a reinsurer. A direct insurer that relies too heavily on one reinsurer faces a substantial risk of default. A life insurer who totally depends on reinsurance and retains a small percentage of his total portfolio is generally considered to be an increased risk to the insuring public.

The life insurance reserve is an actuarially calculated reserve designed to ensure that the insurer has sufficient reserves to meet his long-term liabilities. It therefore reflects to a great degree the amount of insurance business the life insurer underwrites and therefore also reflects the extent to which he is reinsuring his life business.

In addition there are peculiarities in reinsuring a life insurance policy:

i. Individuals purchase multiple policies in their own name. Would reinsurance be per life or policy? If it is per life then the accumulation through multiplicity of policies requires to be considered.

ii. While insurer would pay either a monthly benefit or a lump sum benefit would the reinsurer follow suit or merely pay death benefit?

iii. Accelerated death benefits pays for event and not be severity of loss. Would the reinsurer follow suit?

iv. In practice it is likely that the life insurer is already on risk for a life reinsured on facultative basis and the reinsurer is yet to agree his participation. In this case the life insurer is on risk for 100% sum until he receives confirmation from the reinsurer.
v. Would the reinsurer follow resumption of cover following termination of policy?

vi. If a life proposal is submitted for facultative reinsurance then it cannot be included for automatic reinsurance within the treaty. If such automatic inclusion is required when a proposal is also proposed for facultative reinsurance then the same is required to be agreed upfront with the treaty reinsurers.

vii. If the amount on a life exceeds agreed limit for notification to reinsurers then the same would require notice to reinsurers to assist for their retrocession and approval.

viii. It would do well with reinsurer to specify all benefits to be reinsured and specify mode of cover for each.

Keyman insurance protects business debts of a firm which is dependant on a key individual for continuing its business. In view of which the sum insured would not be related to the value of a person but the value of his loss to his firm and the premium is paid by the firm as a business expense.

In India we have the instance of a film director being substantially insured. Accumulation is when several people are affected by a loss there is an accumulation of insured persons; also, where several policies arranged in respect of one and the same individual are affected, one speaks of a ‘policy accumulation’.

Accumulation control is therefore essential to determine need for reinsuring.

### Test Yourself 5

Standard Fire and special peril insurance is a principal class of ____________

I. Property reinsurance

II. Liability reinsurance

III. Marine insurance

IV. Aviation insurance
Summary

a) Insurers have different systems of retention and reinsurances for different risks and their related insurances. Management of an insurer will set the retention limits at a level they can afford to risk their solvency.

b) The limits for retention are set out by the management and approved by it. These limits are the basis for implementing reinsurances as arranged and are referred to by the underwriter in his day to day decisions for determining retention for each policy as issued by his insurer.

c) There are no clearly defined formulas or rules to enable an insurer or a reinsurer to decide on his retention.

d) Within an insurer’s (reinsurer’s) office, the acceptable level of retention will be seen differently by different officials.

e) In practice, retention is a combination of the financial consequences of risk and event based losses. This incorporates requirements of rating, liquidity and return.

f) There are two types of retention that are required to be managed: Per risk retention and per event retention.

g) The Per Risk retention is scaled down according to the quality of risks.

h) The Per Event retention is managed through reasonable estimation of financial consequences and through causing a catastrophe reserve for funds to accumulate and be available over the long term.
Answers to Test Yourself

Answer 1

The correct option is III.

If management sets the retention limits as high, then they expose themselves to retaining more when claims occur.

Answer 2

The correct option is I.

Retention is a combination of the financial consequences of risk and even based losses.

Answer 3

The correct option is III.

In property insurance, Demarcation is not a risk factor, in which risk schedule of retentions is based.

Answer 4

The correct option is II.

For Tanker, an ocean going vessel, ABC Company will have to seek insurance under marine hull insurance.

Answer 5

The correct option is I.

Standard Fire and special peril insurance is a principal class of property reinsurance.
Self-Examination Questions

Question 1
Which of the following is a normal method of reinsurance in miscellaneous accident business?

I. Per risk basis  
II. Per event basis  
III. Excess of loss basis  
IV. Surplus basis

Question 2
‘If the risk is not a very good risk the insurer may keep less and the amount to be reinsured will therefore increase in case of treaties without a line limitation.’ This is true for which of the following categories of reinsurance?

I. Life reassurance  
II. Marine reinsurance  
III. Aviation reinsurance  
IV. Property reinsurance

Question 3
Which of the following types of insurance protects business debts of a firm which is dependent on a key individual for continuing its business?

I. Property insurance  
II. Life assurance  
III. Keyman insurance  
IV. Accident/Liability insurance

Question 4
Which of the following is correct with respect to per risk retention?

I. Per Risk retention can be managed through controlled and informed decisions.  
II. The Per Risk retention is managed only through reasonable estimation of financial consequences  
III. The Per Risk retention relates to the number of individual risks that could be hit by multiple events.  
IV. The per risk retention is managed by allowing a catastrophe reserve for funds to accumulate and be available over the long term.
Question 5

Which type of retention is managed through reasonable estimation of financial consequences and by allowing a catastrophe reserve for funds to accumulate and be available over the long term?

I. Per risk retention  
II. Per event retention  
III. Financial retention  
IV. Capital retention

Answers to Self-Examination Questions

Answer 1

The correct option is IV.

Surplus basis is a normal method of reinsurance in miscellaneous accident business.

Answer 2

The correct option is IV.

If the risk is not a very good risk the insurer may keep less than (Rs.x) and the amount to be reinsured will therefore increase in case of treaties without a line limitation. This is true in case of property reinsurance.

Answer 3

The correct option is III.

Keyman insurance protects business debts of a firm which is dependent on a key individual for continuing its business.

Answer 4

The correct option is I.

Per Risk retention can be managed through controlled and informed decisions.

Answer 5

The correct option is II.

Per event retention is managed through reasonable estimation of financial consequences and by allowing a catastrophe reserve for funds to accumulate and be available over the long term.
CHAPTER 6

REINSURANCE PROGRAM-DESIGN

Chapter Introduction

A reinsurance programme for insurance business manifests various interests which form part of the corporate philosophy of an insurer. In this chapter we will discuss about reinsurance program design and reinsurance accounts. We will also briefly discuss about funds flow and liquidity.

Learning Outcomes

A. Programme Objectives
B. Gross to Net evaluation
C. Reinsurers accounts
D. Funds flow and liquidity
A. Programme Objectives

A reinsurance programme manifests various interests which form part of the corporate philosophy of an insurer. In a way it is a plan which crystallises a part of the overall philosophy.

Basically the reinsurance programme remains a protection for the gross business - whether direct insurance or inward reinsurance.

1. Primary objectives

An effective reinsurance program should primarily achieve the following objectives:

The primary objective of reinsurance is that:

a) It should reduce the company’s probability of ruin (“ruin” is the word actuaries use for bankruptcy) at a price acceptable to the company. In this sense, the basic role of reinsurance is to safeguard the solvency of an insurer against random fluctuations in the overall claims experience and an accumulation of losses arising out of one event.

b) It should stabilize any fluctuation in the insurer’s annual aggregate claims experience so that wide fluctuations in results from one year to the next are avoided;

c) Reinsurance can be used to allow an insurer to accept risks beyond its normal retention and so ensure that it is not placed at a serious disadvantage compared to its competitors;

2. Other objectives

a) Technical

i. The technical results of the insurer / reinsurer needs to be stabilised by reducing fluctuations in claims to the yearly retained account.

ii. Further the risk of suffering a greater liability than justified by the financial resources in the event of a catastrophe must be minimised.

iii. Concentration of risks in any one class of business or geographical area must be reduced and a wide spread of such risks must be aimed at.
b) Business efforts of the insurer

i. The programme must be flexible to accommodate increasing values due to inflationary trends and improvements in technology. Thus the programme must aid in preserving development efforts and thereby add to the prestige of the insurer / reinsurer.

ii. Newer types of cover which may be devised and issued for new developments arising from changes in science and technology and therefore bringing with it entirely new exposures must be easily accommodated within the framework of the programme.

3. Objectives relating to reinsurers

While tendency of an insurer is to retain as much premium as possible, the reinsurer merits consideration for either the insurer’s own inward reciprocal business or for reinsurance as a cover requirement. In either case the reinsurers must be rewarded with profits over a period of time. From this emanates the need to keep the gross account profitable. In other words rating levels in the market needs to be governed by underwriting consideration than being left to market forces. This latter aspect is derivative to the programme.

4. Objectives relating to the nation

While the individual insurer generally strives to optimise his retention in a country which places emphasis on conservation of foreign exchange, there is a keen pressure to maximise net retention. While this will be difficult to achieve, the optimisation of net retentions can be planned through possibility of reciprocal inward reinsurance.

Besides the above objectives, which need to be integrated into the reinsurance programme, another key parameter is the state of the insurer as a going concern. Particularly for a newly formed insurance company, reinsurance can be used to finance growth. In countries where minimum solvency margins based on net premiums are applied, reinsurance can reduce net premiums so that an insurer can accept an increasing volume of business without requiring a corresponding increase in capital.

The ultimate objective is to optimise retentions and build up capacity. A constant appraisal of the programme is therefore necessary at every anniversary. Initially it is to optimise retentions and subsequently to review the achievement of objectives with each passing year. Reinsurance tradition generally dictates not too frequent a change in the programme.

However this will be too rigid an approach in a rapidly growing general insurance or reinsurance market. Perhaps the comfort of programme designed for a very long period can be sustained in the market of an advanced country. Appraisal provides a means to bring about a balance amongst conflicting interests. It goes far in bringing about stability to the user of the programme as also prestige from being scientifically sustained in the eyes of his reinsurers.
5. Other reinsurance related objectives

   a) To broaden the spread of the net portfolio by obtaining participations in the portfolio of risks of other insurers / reinsurers

   b) To secure technical assistance in rating, terms and conditions of cover and processing of claims.

   c) To handle separately from the general net account, a new class of business of unknown hazards or business which is much exposed to loss when it is desired to proceed cautiously.

6. The other issues that merit attention

   a) Reinsurance cost should be reasonable

   b) Reinsurers should have good rating

   c) An insurer must look for continuity, the right philosophy of business, friendship and understanding with his reinsurers. It is not prudent in the long term to buy reinsurance from the cheapest available sources. It is very important to pay equal attention to relationship issues with reinsurers and their market providing him reinsurance cover.

   d) The reinsurance programme must be technically viable, stable and administratively simple.

   e) Reinsurance has been compared to the shock absorbers on a car which do not make the road smoother but makes a bumpy ride into a smoother one. Similarly, reinsurance does not reduce losses but merely smoothes out the effect on the insurer. Continuing the analogy with the car, to ensure that the shock absorbers do not become worn out and the car cease to function, the road must be repaired. So it is with reinsurance that the underlying problem of inadequate rates of direct business must be addressed in order to secure successful operation of the insurer with effective reinsurance support.

Test Yourself 1

The primary objective of reinsurance is that it should reduce the insurer’s probability of ‘ruin’ at a price acceptable to it. In what context is the word ‘ruin’ used by an actuary?

I. Loss
II. Bankruptcy
III. Deficit
IV. Debit
B. Gross to Net evaluations

This process of evaluation reveals the changes in experience to the gross account as also the balance anticipated to be brought about by reinsurance protection in respect of the retained business in each class.

The aim is to even out wide fluctuations in the gross direct business by stabilising claims experience in the net retained account. The skewness of reinsurance protection under the programme towards a particular type or class of risks has to be evaluated.

1. Commission earned

In the course of above evaluation the commissions earned on ceded business is important. It is important as, in today’s reinsurance business, it is not a mere pro-rata recovery of acquisition costs. It includes a financial element in it. So the decision is between bearing a risk by retaining more or passing the risk and earning a safe additional commission.

The additional cost of the excess of loss reinsurance cover must be considered in this context. The gross experience, over a period of say five years, of the class concerned is one of the important basis which determines between the alternatives in this situation. Indicative experience is available through leading reinsurers and brokers.

The anticipated incurred loss ratio to the gross and net accounts in a class are very good indices for measuring the effect of the programme on retentions. While the net retained account is expected to sustain its loss ratio over a period of time the gross direct account is expected to be subject to as wide a variation as the exposures permit.

In good years the gross direct account will be relatively better in this regard and generate surpluses for reinsurers. In bad years the opposite will happen.

The commission component of the reinsurance ceded is critical in determining a large proportion of balance being generated. Many companies abroad go on a sliding scale basis to leave a constant small surplus with the reinsurers and thereby maximise the balance of their net accounts.

2. Pursuance of policy

To what extent this policy can be actively pursued depends on the standing of the insurer / reinsurer, his capacity to generate a good gross direct account and to cede to reinsurers a balanced portfolio with a good premium - liability ratio which produces a healthy experience over a period of time. Such an approach enables an insurer build up his funds and attempt higher retentions.
3. Effect of catastrophe

The effect of catastrophe on the net retained account needs to be evaluated. As a single catastrophe can mean a substantial drain on the resources of the insurer/reinsurer it needs to be seen as to what effects the arrangements would produce. This will reflect in the gross loss-ratio and net loss-ratio.

Essentially excess of loss arrangements protect the net account, may be in layers devised to suit the insurer’s convenience. The usefulness or otherwise of these covers must be evaluated in such a situation.

Catastrophe being what it is operates in a pattern of return cycles and the covers devised under the programme keep this in view.

4. Other important factors in reinsurance programme design

<table>
<thead>
<tr>
<th>Factor</th>
<th>Relevance</th>
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<tbody>
<tr>
<td>i. Paid-up capital &amp; free reserves</td>
<td>Financial strength of the insurer. This will influence retentions, cover limits &amp; reinsurance costs.</td>
</tr>
<tr>
<td>(i.e. Total free assets)</td>
<td></td>
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<tr>
<td>ii. Risk based capital</td>
<td>Relation between largest risk &amp; cat exposures accepted by insurer on a gross &amp; net basis to judge financial effects on insurer’s capital base.</td>
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<tr>
<td>iii. Size &amp; structure of the portfolio</td>
<td>Decision making on what type of reinsurance arrangements are most suitable.</td>
</tr>
<tr>
<td>iv. Frequency &amp; size of losses</td>
<td>Decision making on retentions &amp; type of reinsurance arrangements</td>
</tr>
<tr>
<td>v. Geographical location of operations</td>
<td>Analysing exposure to various perils.</td>
</tr>
<tr>
<td>vi. Management, underwriting &amp; claims handling capabilities</td>
<td>Management philosophy on programme objectives &amp; its confidence in underwriting &amp; claims handling teams.</td>
</tr>
<tr>
<td>viii. Reinsurance market conditions</td>
<td>Ensuring acceptability of programme to reinsurers.</td>
</tr>
<tr>
<td>ix. Foreign exchange</td>
<td>Making fuller use of local reinsurance capacity so that lower premiums are ceded overseas.</td>
</tr>
<tr>
<td>x. Business development &amp; marketing plans</td>
<td>to ensure prompt cover for the newer &amp; increased exposures being added by new business.</td>
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</table>
The anticipated incurred loss ratio to the gross and net accounts in a class are very good indices for measuring the effect of the programme on retentions. Which of the following is true in the context of gross direct account?

V. The gross direct account is expected to sustain its loss ratio over a period of time.

VI. The gross direct account is expected to be subject to as wide a variation as the exposures permit.

VII. In good years the gross direct account will be relatively less and generate revenue for reinsurers.

VIII. In bad years the gross direct account will be relatively higher and generate losses for reinsurers.

Between the gross direct business and the net retained business lies a host of ceding arrangements. They are arranged in a way such as to:

a) Improve combined local retentions
b) Reduce the cost of reinsuring
c) Ensure adequate cover for the gross account (adequate is a relative term)
d) Generate good reciprocal inward business and yet enable a sufficiently better retained balance to net account.

For the purpose of evaluation of these outward arrangements the correct approach will be to make an arrangement-wise assessment of reinsurance cessions. The composition of risks ceded to each arrangement must be evaluated on the basis of their loss-ratios.

For this purpose the risks are to be grouped into their types:

- Small size,
- Medium size,
- Large size, etc.

The commissions obtained under each arrangement and the additional infrastructure involved in its administration will provide the basis of determining the economics of each arrangement. Studies in costing must be extended for this review.

The study and analysis of cost will enable optimum - though not minimum cessions, not of risk exposures only, but of results under each arrangement. Where the arrangement is for reciprocal business, a mix of risks producing a broad based premium and giving a good treaty balance, yielding fairly sustained positive results over a period of time is needed.
To devise such an arrangement is an elaborate exercise. So when such an arrangement exists and operates, it is essential to review its working specifically each year. It is necessary to generate an increasingly good inward reciprocity with each passing year.

After all the very purpose of reinsurance is to spread risks amongst the community of insurers who can then support each other in bad times. Extra care is necessary for all reciprocal arrangements though not to the detriment of other ceding arrangements.

**Test Yourself 3**

In ____________ business, a mix of risks producing a broad based premium and giving a good treaty balance, yielding fairly sustained positive results over a period of time is needed.

I. Reciprocal business  
II. Risk booked business  
III. Non risk booked business  
IV. Medium size business

**D. Funds flow and liquidity**

The question of strain on liquidity should not arise as the programme is aimed to provide a stable experience to the net account and give a sufficient balance at each year end provided the gross rates are adequate.

Situations arise when substantial gross payments need to be made immediately in respect of risks which are retained marginally.

To eliminate the strain arising from this aspect on invested funds a cash loss recovery facility is administered in all outward arrangements. This helps the insurer to keep his well invested funds intact.

Thus the programme design addresses cash flow requirement as well. In a year of catastrophe the strain to the resources of the insurer must be minimum provided the programme takes care of this aspect.

A theoretical accumulation of net losses in all classes of business, occurring perhaps from the same event, will be of good academic interest in assessing the possible strain on liquid resources. A programme design can be successful if its evaluation and follow up exist in full measure.
The follow up takes the following methods and forms:

i. Modifications to programme design,
ii. Better systems for reporting and underwriting.
iii. New thrusts on the business front reflecting a measure of confidence in the programme;
iv. Better liquidity management; and finally
v. A renewed drive for optimum retained results.

The design and the follow up are based on simulation and modeling studies.

Exercises are carried out to derive “as if” results.

Computer software programs are now available to enable these studies. Based on these decisions relating to design and follow up are taken.

**Test Yourself 4**

In a year of catastrophe, the reinsurance programme should be designed in such a manner that

I. The strain on the resources of the insurer must be maximum
II. The strain on the resources of the insurer must be minimum
III. The invested funds have a cash loss estimation facility
IV. The invested funds manage a good cash flow
Summary

a) A reinsurance programme for insurance business manifests various interests which form part of the corporate philosophy of an insurer.

b) The reinsurance programme remains a protection for the gross business - whether it is direct, insurance or inward reinsurance.

c) The basic role of reinsurance is to safeguard the solvency of an insurer against random fluctuations in the overall claims experience and an accumulation of losses arising out of one event.

d) Situations arise when substantial gross payments need to be made immediately in respect of risks which are retained marginally. To eliminate the strain arising from this aspect on invested funds a cash loss recovery facility is administered in all outward arrangements. This helps the insurer to keep his well invested funds intact.

e) In a year of catastrophe the strain on the resources of the insurer must be minimum provided the programme takes care of this aspect.

f) A programme design can be successful if its evaluation and follow up exist in full measure.

g) The design and the follow up are based on simulation and modeling studies.
Answers to Test Yourself

Answer 1
The correct option is II.
The word ‘ruin’ is used by actuaries in reinsurance to describe ‘bankruptcy’.

Answer 2
The correct option is II.
The gross direct account is expected to be subject to as wide a variation as the exposures permit.

Answer 3
The correct option is I.
In Reciprocal business, a mix of risks producing a broad based premium and giving a good treaty balance, yielding fairly sustained positive results over a period of time is needed.

Answer 4
The correct option is II.
In a year of catastrophe, the reinsurance programme should be designed in such a manner that the strain on the resources of the insurer must be minimum.

Self-Examination Questions

Question 1
Which of the following is not a primary objective of reinsurance?

I. To safeguard the solvency of an insurer against random fluctuations in the overall claims experience and an accumulation of losses arising out of one event
II. To secure technical assistance in rating, terms and conditions of cover and processing of claims.
III. To stabilise any fluctuation in the company’s annual aggregate claims experience so that wide fluctuations in results from one year to the next are avoided.
IV. To ensure that it is not placed at a serious disadvantage compared to its competitors.
Question 2

Which of the following statements are correct with respect to technical objectives?

I. The technical results of the insurer need to be destabilised by reducing fluctuations in claims to the yearly retained account.
II. The risk of suffering a greater liability than permitted by the financial resources in the event of a catastrophe must be maximised.
III. Concentration of risks in any one class of business or geographical area must be reduced.
IV. To allow a company to accept risks beyond its normal retention and so ensure that it is placed at a serious disadvantage compared to its competitors.

Question 3

“In countries where minimum solvency margins based on net premiums are applied, reinsurance can reduce net premiums.” What does this statement imply?

I. An insurer can accept an increasing volume of business without requiring a corresponding increase in capital.
II. An insurer cannot accept an increasing volume of business before requiring a corresponding increase in capital.
III. An insurer can accept an increasing volume of business after requiring a corresponding increase in capital.
IV. An insurer cannot accept an increasing volume of business after requiring a corresponding increase in capital.

Question 4

In certain cases, there may arise situations, when substantial gross payments need to be made immediately in respect of risks which are retained marginally. What can be done to eliminate the strain arising from this aspect on invested funds?

I. A cash loss stability facility is administered in all outward arrangements.
II. A cash loss recovery facility is administered in all outward arrangements.
III. Programme design is modified to destabilise cash flow.
IV. Programme design is modified to achieve better liquidity management.
Question 5

A programme design can be successful if its evaluation and follow up exist in full measure. This design and the follow up are based on ___________

I. Theoretical studies
II. Transactional studies
III. Simulation and modeling studies.
IV. Financial studies

Answers to Self-Examination Questions

Answer 1

The correct option is II.

“To secure technical assistance in rating, terms and conditions of cover and processing of claims” is not a primary objective of reinsurance

Answer 2

The correct option is III.

The correct statement with respect to technical objective is “Concentration of risks in any one class of business or geographical area must be reduced.

Answer 3

The correct option is I.

“In countries where minimum solvency margins based on net premiums are applied, reinsurance can reduce net premiums.” Thus it implies that an insurer can accept an increasing volume of business without requiring a corresponding increase in capital.

Answer 4

The correct option is II.

In certain cases, situations may arise when substantial gross payments need to be made immediately in respect of risks which are retained marginally, to eliminate the strain arising from this aspect on invested funds a cash loss recovery facility is administered in all outward arrangements.
Answer 5

The correct option is III.

A programme design can be successful if its evaluation and follow up exist in full measure. This design and the follow up are based on simulation and modeling studies.
CHAPTER 7
REINSURANCE - DISTRIBUTING THE PROGRAMME ARRANGEMENTS

Chapter Introduction

In the programme design stage, leading professional reinsurers and intermediaries are involved. In this chapter, we will discuss the role of intermediaries in negotiation and placement. We will also briefly discuss direct placement methods and placements through intermediaries.

Learning Outcomes

A. Negotiation and Placement
B. Direct Placement
C. Placement through intermediaries
A. Negotiation and Placement

1. Negotiation and Placement

In the programme design stage leading professional reinsurers and intermediaries are involved. This is apart from being in constant contact with them throughout the year for various requirements. Their involvement at the design stage lends to realism and synchronization with what is best and available from the world reinsurance markets.

This involvement adds strength to the programme design in terms of placement of reinsurance covers that constitute the programme. Further, the reinsurer’s strengths are built into it which enables continuous and assured reinsurance protection throughout a programme year.

In view of this close involvement of reinsurers and intermediaries at the design stage, negotiations commence on indicative basis with finalisation of actual limits and terms when the programme design is finally put in place. Inevitably professional reinsurers and intermediaries compete at this level.

2. Key Considerations in Negotiations:
   a) Market Considerations
      i. Ceding Insurer

      No reinsurer wishes to support a ceding insurer who is either inadequately capitalised, in financial difficulty or known in his market to be a ‘rogue’.

      ii. Ceding Insurer’s underwriting policy

      The reinsurer must be satisfied that the ceding insurer is transacting his business in a ‘normal’ fashion. This is particularly important in classes where enormous variety of risks and possible coverage’s make it all too easy for insurers to attempt the unusual (and unworkable).

      iii. Underwriter

      When a reinsurer accepts a share in a proportional treaty he is virtually handing to the ceding insurer’s underwriter his pen and cheque book.

      The reinsurer would therefore like to know:
      ✓ Who is the underwriter?
      ✓ What is his track record in underwriting?
      ✓ What is his market standing?
      ✓ Is he trustworthy? Etc.
In some markets certain underwriters become well known and their reputation, good or bad, are common knowledge. In many cases, those reinsurers who travel extensively are able to determine for themselves who is experienced and capable.

iv. Underwriting Policy

Each reinsurer has his own underwriting policy which would mean that he has determined some types of business or perhaps some parts of the world are of no interest to him.

v. Accumulations

The reinsurer is aware of the danger of accepting too much business of a particular class in a particular territory. To do so could cause imbalance to his business and expose him to heavy losses.

vi. Leader of a treaty

Although each reinsurer has responsibility of determining for himself the correctness of terms and conditions of a contract and of monitoring the activities of the ceding insurer’s underwriter, nevertheless it can be material, particularly in negotiations, to follow a leader who is known to undertake these duties in a proper and responsible manner.

vii. Is reciprocity required

Many ceding insurers continue to request reciprocity from treaty reinsurers even though the ceded business may not lend itself to such a business relationship.

viii. Ceding Insurer’s retention

All reinsurers should ensure that the ceding insurer’s retention is of sufficient size and that it is indicative of risk bearing by the insurer. The insurer must stand to be affected though maybe not as much as it affects his reinsurers.

ix. Commission Terms

Commission terms progressively reduce for cessions at higher level surpluses. Reinsurers are also not in a position to provide profit commissions on the higher level surplus treaties.

The logic is that the imbalance of the treaty can cause even one loss to eat away the profits of several years and the reinsurers should be able to build up funds to pay for the adverse years.
x. Premium Reserves

Previously treaties used to provide for premium reserves and also even loss reserves which carry a low rate of interest. These are a financial drag on the reinsurer. Hence the practice has grown of securing waiver of reserves.

xi. Market Experience

Presently the benchmark for a country is the `sovereign rating` of credit agencies. For instance, Standard & Poor rating of BBB would rate a country and all its businesses to be investment grade and anything at BB+ and below as required credit watch.

This is an assessment of a country`s ability to honour its financial transactions. It is common to note certain countries unable to pay account dues. Exchange rate fluctuation is another major consideration. It is also important to consider the tax system for reinsurance transactions in various countries and other regulatory requirements.

b) Forms of Reinsurance

The forms of reinsurance used to negotiate protection to a programme are varied. Briefly these are as follows:

i. Surplus Treaty

There are fundamental differences between insurers as to how the surplus treaty is arranged and operated. Variations exist in the manner in which it is combined with quota-share or excess of loss or incorporate a line based limit. Surplus treaties form the core of most reinsurance programmes.

ii. Quota Share Treaty

This treaty is used mainly for small accounts where the extra administrative burden of a surplus would be too great. It is a preferred form for retrocession of reinsurance accounts. It provides a wider spread for the net retained portfolio of the insurer with an improved balance thus ensuring stability in profits. For this reason giant direct insurers cede out a quota share of their retained account against reciprocal reinsurance acceptance from world markets. They are able to secure a profit advantage on the strength of the superior balance of their portfolio.

iii. Variable Quota Share Treaty

This is a treaty where the amount reinsured is expressed as being between a minimum (say 20%) and maximum (say 80%) quota share. Although it is said to be a quota share it has all the characteristics of a surplus.
iv. Facultative

A considerable proportion of peak risks business is placed facultatively. This enables direct insurers to produce a more balanced book of business for themselves and for their treaty reinsurers. A Risk Excess cover operates similar to a facultative but on non-proportional basis.

v. Facultative Obligatory Treaty

This is a rare form and was in use previously. This can be placed in weak reinsurance market conditions and is therefore not adequate to be relied upon for primary reinsurance capacity. This form of treaty plus the high exposure / low premium market of aviation means that they are totally unbalanced.

vi. Excess of Loss Treaty

Both working and catastrophe covers arranged on a layered basis provide reinsurance protection to the retained business and enable cost reduction in using less of proportional arrangements. The lower layer is rated on exposure while the higher layers tend to be rated on the extent of cover provided.

vii. Stop Loss Ratio

This is another broad form of reinsurance to protect a whole portfolio of net retained business from exceeding an agreed loss ratio and hence ensure profit to the insurer. This arrangement is useful in widely dispersed risks such as in agriculture exposed to pest damage.

c) Reciprocal Negotiation

Reciprocal reinsurance trading is considered important by ceding insurers. They value their outward treaties that form the basis of their reciprocal trading so much so that they tend to protect the experience of such outward treaty by measures such as not utilizing the full treaty capacity for more hazardous risks or arranging an excess of loss cover to protect the treaty portfolio. They are also ready to offer adjustments in commission, profit commission and reciprocity terms to keep the treaty exchanges balanced.

The benefits derived from a reciprocal exchange of treaties are two-fold:

i. It enables the ceding insurer to add to his net premiums and net profits;
ii. It provides a wider spread for the net retained portfolio of the insurer with an improved balance thus ensuring greater stability in underwriting surplus.
Insurers with a substantial property premium are able to exchange business against their first surplus property treaty while others have to be content with obtaining the best possible terms for their business. The first surplus property treaty limits are determined at the highest possible level consistent with the objective of securing the best possible terms.

The practice of reciprocal reinsurance trading which is so evident in the fire and hull lines of business is not widely prevalent in other lines of business. However, it is customary to exchange business of like type among insurers.

When dealing with markets of lower average profitability, one can think of more than 100% premium reciprocity to balance the exchange of profit. Theoretically, a ceding insurer with a treaty with average 10% profitability can expect to receive 200% premium reciprocity from a reinsurer whose treaty has an average profitability of 5%.

However, if the reciprocating insurer has a much better balance for his treaty and is able to conclude short of 100% profit reciprocity in consideration for the steady results. One danger in accepting a large premium reciprocity from a treaty with a low average profitability is that the profit is subject to wide fluctuations. It is therefore preferable to increase profit commission suitably to bring down the net profit ceded.

On the contrary, larger premium reciprocity adds to the net premium of the ceding insurer and has other advantages flowing from it such as creation of larger reserves and reduction of tax on profits consequently. When examining the terms of any treaty exchange through an intermediary one must bear in mind the impact of brokerage cost on the result of reciprocal profit from the inward treaty.

**d) Other Issues in Negotiations**

The surplus treaty is split into two or three surpluses primarily with a view to obtain the best possible commission terms for the business. Hence particular attention is paid to the balance of the portfolio with regard to the first surplus treaty while a sufficient volume of premium should be generated for the second and higher surplus to make it marketable. On the higher surpluses, reinsurers will normally want to know a great deal of background information dealing with rate levels and claims.

Where the portfolio of business is large and a large number of risks are ceded to the second surplus treaty, it may be possible to build up a treaty with a reasonable balance and even exchange it against incoming business although at less favourable terms than the first surplus treaty exchanges. So long as the second surplus treaty is not very unbalanced reinsurers may be willing to accept shares without insisting on any bordereaux. When considering the placement of the second surplus treaty one should try to achieve a wide distribution among several reinsurers.
The general business approach of the reinsurer is of considerable importance in the placement of the higher covers since his utmost co-operation and understanding will be necessary when a claim arises. Auto/Fac covers derive their premium from a limited number of risks only. Reinsurers require some detailed information regarding the portfolio of business ceded there under although they may still agree to waive bordereaux. When the Auto/Fac cover contains only peak risks, it may be worthwhile providing bordereaux if a large reinsurance capacity be required.

Not all companies can boast of a consistent record of profits on their cargo treaties. These may generate marketing problems. In such cases the bouquet approach is sometimes followed by placing all the cargo surplus treaties together or by tagging it on to the fire surplus treaties.

The primary consideration in the placement of cargo treaties is the stability of the reinsurance arrangements. Spreading the placement wide and looking for understanding and friendly reinsurers applies with equal force if arm-twisting following a bad patch is to be avoided.

During the last decade cargo reinsurers especially on the excess of loss covers became aware of the very substantial accumulations which can occur under war risk cover even in respect of localized hostilities. They felt that war risk cover could no longer be considered as a mere extension of the basic cover and should be considered as an important cover in its own right. This resulted in reinsurers asking for a separate rate for the war risk premium only under the excess of loss cover.

The increased rates and reinstatement terms were found uneconomic in most cases and it was found more advantageous to switch over to quota share reinsurance on war risk only. Likewise, difficulties arose with regard to definition of one event in respect of war risk losses under the excess of loss covers.

One special factor about hull is in the claims. It takes a longer time generally for hull claims to mature and get paid. It is therefore possible for the ceding insurer to negotiate reserves and thus retain funds at a low rate of interest. Currency fluctuations play a greater role in the financial outcome in respect of reserve retained.

**Test Yourself 1**

Which of the following treaty is used mainly for small accounts where the extra administrative burden of a surplus can be quite large?

I. Surplus treaty  
II. Quota share treaty  
III. Facultative treaty  
IV. Excess of loss treaty
B. Direct placement

1. Participation in local market pool

Whilst the reinsurance programme is designed with the objective of securing the best advantage to the insurer concerned, it is also necessary to bear in mind the good of the national market and blend the programme with common action of all insurers in the market to improve the national underwriting capacity and retentions.

To this extent, participations in pools, cessions on an obligatory basis to national reinsurance organisations and intensive exchange of reinsurance business amongst insurers within the country are all very important measures.

It has been observed that obligatory cessions normally do not carry the commission terms obtainable on commercial placements. But this sacrifice is worthwhile in the interest of building up country`s market retention.

Again, in several countries, the national reinsurer receiving the obligatory cession, is either a collective organization of all insurers or a government body, so that the insurer does have some stake in the development of the national reinsurer.

It has also been found that such national reinsurance organizations are able to develop market expertise for specialized classes of business and provide assistance within the country to the smaller insurers in such classes of business. This benefits the country very substantially as it reduces dependence on foreign reinsurance markets for expertise.

In participating in pooling arrangements, insurers normally find different complexions of portfolios being brought into the pools. An insurer with a very profitable portfolio may not feel very happy to cede business to the pool at normal commission terms and receive back a less profitable portfolio of the pooled business at the same commission terms or with an additional overriding commission.

This has given rise in some countries to each insurer having differential commission terms for his cessions to the pool so as to ensure a reasonable balance between the profit ceded and the profit received over a period.

However, it is not possible to equate the two in absolute terms because in that event the smaller insurers will derive no long-term benefit at all from the pool. Therefore, participation in pools for the companies with the more profitable portfolios also involves some sacrifice which is considered worthwhile in the larger national interest.
2. Group Underwriting and Retention

When insurers are individually small their retention levels are very low. Where the insurers have a common management or common ownership they may resort to group underwriting. This means that they keep a retention representing the combined capacity of all the group companies and operate a group reinsurance programme. This net retained business is then redistributed among the group members.

A development out of this is the formation of market pools. Under such a system each insurer keeps his own net retention and thereafter cedes to the pool on priority basis up to defined limits. The business so pooled may be protected by suitable excess of loss covers and redistributed back to the members.

Under this arrangement the ceding insurer will get a further retention on his own risks through the pool, but in practice the pool portfolio is sufficiently well-balanced to permit this aspect being ignored. Such pools can be very useful where each member is ceding to the pool a different portfolio of risks than the others and where there are a sufficiently large number of participants to make the pool well-balanced.

3. Placement with Professional Reinsurers

Professional reinsurers cannot provide 100% premium or profit reciprocity. So it may appear wasteful to offer them a share of the first surplus treaty at lower reciprocal terms. But professional reinsurers play a very useful role in providing reinsurance capacity and expertise and guidance where required.

This service costs them significantly but it is provided free to the ceding insurers. It is logical business policy to provide them a share in the basic treaties where they can participate in stable results and continue to keep their interest in the ceding insurer.

Test Yourself 2

Which of the following is correct with respect to market pool?

I. In market pool, each insurer keeps his own net retention and thereafter cedes to the pool on priority basis up to defined limits.
II. Market pool may be protected by suitable surplus share covers and redistributed back to the members.
III. In market pool the ceding insurer cannot get further retention on his own risks through the pool.
IV. Market pools can be very useful where each member is ceding similar portfolio of risks to the pool.
C. Placement through intermediaries

The word `intermediary` extends the typical broker in his function to a position of dual responsibility. In the first instance the intermediary understands and consults with a proposer to properly represent him to the reinsurer/s. Once the slip is signed down and a cover note formalized the intermediary takes over handling of documentation for the reinsurer. He gets his brokerage from the reinsurer for his services to both the insurer and his reinsurer.

Why an intermediary? Internet and mobile communication have made it possible to establish connection with insurers in distant parts of the world without the aid of intermediaries. It may be found useful to utilize them to deal with markets which are not visited regularly by the insurer’s own executives or where he does not operate directly or where the reinsurers’ representative does not visit his office regularly. However in practice the intermediary proves his value by providing a regular flow of intelligence about world markets. He also keeps a watch over the financial position of the reinsurers and alerts for downgrades in their financial standing.

He is able to handle tough negotiations without embarrassment and exchange of argumentative messages. Thus an intermediary lends himself to the sensitive handling of reciprocal reinsurance negotiations and placement for reinsurance protection. It can also be said that, like a professional reinsurer, he is able to provide depth of service on more difficult reinsurance business largely because of the brokerage earned on easier reinsurance transactions.

The slip is prepared in consultation with the broker as he is the intermediary who goes around to reinsurers’ offices worldwide informing for the risk and seeking cover support. The slip is initially presented by the broker to underwriters who are respected in the market for their acumen to quote. Such underwriters are known as lead underwriters. There are only a few lead reinsurers and individuals in the world markets for each line of insurance business. Once a lead has indicated his quote and his share of acceptance of the risk the intermediary visits the other underwriters whom by experience he knows would follow the particular lead who has quoted.

It would be difficult to persuade others to follow a lead whom they do not usually follow. He works hard to obtain their participation on same terms as the lead. Many placements remain incomplete as some of the following underwriters sign their participation conditionally. Negotiating out the conditionalities on the slip is another key issue for the intermediary. Eventually when the slip is shown around to the markets the written line, being participation indicated by underwriters, is totalled. If it exceeds 100 % of the intermediary share of risk placement then it is signed down pro-rata.

As per market practice the intermediary issues a cover note summarizing:

- The terms of placement,
- Premium and
- The participating underwriters with their shares set opposite their names.
The intermediary takes responsibility to collect premium and distribute to the underwriters. He also takes responsibility to handle claims recoveries for the insurer. He issues policy documentation with its wordings following the issue of the cover note. Considerable thought and effort go into the planning and establishment of reciprocal reinsurance trading. A good spread for the net account is obtained only by concluding exchanges with reinsurers offering business derived from various regions of the world.

While placing a very small share of the treaty with a reinsurer may be administratively inconvenient, it is unwise to place too large a share either. This is valid even in respect of exchanges with the giant direct writing companies who will be able to take up a very substantial share and the reciprocal share will remain in decimals only. It is very important to know the reinsurers one deals with and restrict business exchanges only to such of them who will show understanding and patience in dealing with the exchange.

Continuity of relationship is very important. Well established intermediaries give high value addition in these respects. Their relationship with insurers and reinsurers is the basis for attaining the objectives of reciprocal reinsurance exchanges. While reinsurers on the first surplus and often on the second surplus treaties rarely spend time investigating the original business rate levels, reinsurers on the higher surpluses and on the facultative reinsurance examine the adequacy of rate levels.

Especially, when considering a facultative offer, reinsurers ask for detailed underwriting data and particulars of rates, etc. Thus, when placing the top surpluses on the large risks, the reinsurance capacity available will depend much on the underwriting data proving satisfactory. In some of the underdeveloped markets, the reinsurers or intermediaries even inspect the risks themselves and advise on risk improvements, rates, etc.

In the placement of the top surplus, selection of the reinsurer requires a great deal of care. Not only should the reinsurer be financially sound but he should also be known for his reasonableness and promptness. The expertise and knowledge of markets which the intermediaries possess is very useful in placing such surpluses. Further, it pays not to drive a very hard bargain in placing such covers so that the goodwill of the reinsurers is retained.

Arranging working covers on a per event basis and dovetailing them into the catastrophe cover are all measures aimed at securing complete protection at an economic cost. Skillful broking sometimes enables the ceding insurer to get rates which are derived solely from the claims recovered and hence the catastrophe cover is obtained almost free.

The competition among intermediaries for business may get reflected in offer of lower rates for an insurer’s cover. The quote would be from a different reinsurance source. In examining such offers one has to exercise great caution.
On closer examination one may discover that the lead has been obtained from a reinsurer not so well informed about the ceding insurer’s business and may even be based on incomplete information. Again, the quotation may have been developed on an “oblige” basis so as to effect an entry for the intermediary in the insurer’s account. Such rates are very unstable and, in switching reinsurance markets one loses the goodwill and reserves built up with an existing set of reinsurers. It is important to keep the structure of the reinsurance arrangements and terms under constant review.

This requires a great deal of collation and analysis of data on the nature of the insurer’s portfolio, claims experience and rate levels. Without such an exercise one may not get the best out of the reinsurance programme. Good reinsurance arrangements provide a great deal of confidence to the reinsurers and enable the insurer provides efficient and speedy service to his own clients.

The advantages and disadvantages of direct placements and dealing through intermediaries is not a comparison of merits of the one over the other. Both have their roles to perform and responsibilities to discharge. At one level the intermediaries compete with professional reinsurers who encourage direct placements. In the matter of reciprocity an intermediary driven programme can work towards 100% reciprocity whereas this would be a limitation in direct placement as professional reinsurers would target to provide reciprocity much less than 100%. Both bring the required expertise, in fact, the intermediary offers a single window for a range of expertise of the reinsurers whom he represents.

The intermediary drives the competition in the world markets - targeting lower rates from quality reinsurers in a soft market and least restrictive cover from quality reinsurers in a hard market. Two issues put him on the toes all the time - substantial direct placement can be accepted by a professional reinsurer marginalizing his presence and the brokerage cost that is additionally borne by an accepting reinsurer and manifest in the original gross rate to the insurer’s client.

In reading through the lesson on direct placement and placement through intermediaries as above one will note that the two perspectives are vastly different. Emphasis is laid upon judicious use of the intermediary. The final objective is the reinsurance programme and the success of its operation. An insurer seeks this success on his own and with external help. It works that way.

**Test Yourself 3**

As per market practice, the intermediary issues a cover note to the insurer. Which of the following is not included in it?

I. Terms of placement  
II. Premium  
III. Claim recoveries  
IV. Participating underwriters with their shares set opposite their names.
Summary

a) In the programme design stage leading professional reinsurers and intermediaries are involved. This involvement adds strength to the programme design in terms of placement of reinsurance covers that constitute the programme.

b) Reciprocal reinsurance trading is considered important by ceding insurers so much so that they tend to protect the experience of such outward treaty by measures such as not utilizing the full treaty capacity for more hazardous risks or arranging an excess of loss cover to protect the treaty portfolio.

c) The practice of reciprocal reinsurance trading is more often used in case of fire and hull lines of business than other lines of business.

d) Where the insurers have a common management or common ownership they may resort to group underwriting. This means that they keep a retention representing the combined capacity of all the group companies and operate a group reinsurance programme. This net retained business is then redistributed among the group members.

e) In market pools, each insurer keeps his own net retention and thereafter cedes to the pool on priority basis up to defined limits. The business so pooled may be protected by suitable excess of loss covers and redistributed back to the members.

f) Professional reinsurers cannot provide 100% premium or profit reciprocity.

g) An intermediary lends himself to the sensitive handling of reciprocal reinsurance negotiations and placement for reinsurance protection.
Answers to Test Yourself

Answer 1

The correct option is II.

Quota share treaty is used mainly for small accounts where the extra administrative burden of a surplus can be quite large.

Answer 2

The correct option is I.

In market pool, each insurer keeps his own net retention and thereafter cedes to the pool on priority basis up to defined limits.

Answer 3

The correct option is III.

Claim recoveries information is not included in the cover note.

Self-Examination Questions

Question 1

Which of the following is issued by an intermediary after the issue of cover note?

I. FPR
II. Policy document
III. Claim document
IV. KYC form

Question 2

Which of the following treaty can be placed in weak reinsurance market conditions?

I. Surplus treaty
II. Quota share treaty
III. Facultative obligatory treaty
IV. Excess of loss treaty
Question 3
Which of the following is a benefit derived by ceding insurers from a reciprocal exchange of reinsurance treaties?

I. Ceding insurers are able to secure a profit advantage on the strength of the superior balance of their portfolio.
II. It does not enable direct insurers to produce a more balanced book of business for themselves and for their treaty reinsurers.
III. It provides a wider spread for the net retained portfolio of the insurer with an improved balance, thus ensuring greater stability in underwriting surplus.
IV. This arrangement is useful in widely dispersed risks such as in agriculture exposed to pest damage.

Question 4
The practice of reciprocal reinsurance trading is more often used in the case of business.

I. Fire insurance
II. Life insurance
III. Aviation insurance
IV. Accident/liability insurance

Question 5
The primary consideration in the placement of cargo treaties is the

I. Stability of the reinsurance arrangements.
II. Spreading of the risk in other portfolios
III. To obtain large reinsurance capacity
IV. To maintain consistent record of profits
Answers to Self-Examination Questions

Answer 1

The correct option is II.

Once a cover note is issued by the intermediary, he has to issue a policy document.

Answer 2

The correct option is III.

Facultative obligatory treaty can be placed in weak reinsurance market conditions.

Answer 3

The correct option is III.

The benefit of Reciprocal reinsurance trading is that it “provides a wider spread for the net retained portfolio of the insurer with an improved balance thus ensuring greater stability in underwriting surplus”.

Answer 4

The correct option is I.

The practice of reciprocal reinsurance trading is more often used in case of fire insurance business

Answer 5

The correct option is I.

The primary consideration in the placement of cargo treaties is the ‘Stability of the reinsurance arrangements’.
CHAPTER 8

LAW AND CLAUSES RELATING TO REINSURANCE CONTRACTS

Chapter Introduction

In this chapter, we will discuss in detail the fundamentals of contract law as applicable to insurance. We will also discuss in detail some common clauses and certain special clauses used in reinsurance contracts.

Learning Outcomes

A. Fundamentals of contract law applicable to reinsurance
B. Reinsurance contract wordings
C. Common clauses in reinsurance contracts
D. Certain special clauses
E. Reinsurance documentation: slip, cover & note agreement
CHAPTER 8
FUNDAMENTALS OF CONTRACT LAW APPLICABLE TO REINSURANCE

A. Fundamentals of contract law applicable to reinsurance

1. Reinsurance contract

Definition

A reinsurance transaction is an “agreement made between two parties, called the reinsured (or ceding insurer, a term also often used especially in relation to reinsurances on a proportional basis) respectively, whereby the reinsurer agrees to accept a certain fixed share of the reinsured’s risk upon terms as set out in the agreement”.

Such an agreement is a contract and the law of reinsurance is based primarily on the law of contract.

a) Reinsurance contract

Reinsurance contract has certain special features inherent in the matter by reason of the nature of the business and its connection with insurance. These features have been discussed below in detail:

Faculative or treaty reinsurance: The contract itself may relate to one particular reinsurance and be expressed in a reinsurance policy or, as was often called in fire insurance, a guarantee policy. Nowadays it is more commonly referred to as facultative reinsurance.

The contract may provide for the reinsurance of a number of risks and be expressed in the form of a treaty. In either case the reinsurance derives its force from the terms of the contract and is subject to all its provisions and limitations.

b) Parties to the reinsurance contract

The parties to the reinsurance contract are the:

i. Reinsured or ceding insurer: The original insurer who, having issued a policy to an insured to cover a certain risk, desires to relieve himself of a part thereof.

ii. Reinsurer: The insurer who accepts that part of the risk which is reinsured.

This gives the clue to the real nature of reinsurance. It cannot exist without there being a direct insurance, for the first party is the reinsured who has already issued a direct policy. Yet the insured under that direct policy has no interest in or right over the reinsurer. He has no privity of contract in the transaction and can make no claim there under.
The reinsurer is certainly liable in respect of his share of any claim made by the insured, but his liability is to the insurer and to the insurer only, for the insurer alone is the other party to the contract. The insured may have an interest indirectly in knowing that his insurer is supported by sound reinsurers, since that goes to improve the security, but he can have no direct interest in the reinsurance contract.

c) **Consideration of reinsurance contract**

The consideration for the reinsurance contract is the reinsurance premium paid by the reinsured to the reinsurer, which may be:

i. A share of the original premium subject to deductions such as for commissions or

ii. As may be agreed at the time that the contract was made.

d) **Signing rules for reinsurance contract**

The wording that embodies the terms of the agreement under the contract is signed by the party to be charged.

i. In the case of a facultative reinsurance a policy is issued and signed by the reinsurer.

ii. A treaty wording, which contains reciprocal undertakings, is signed by or on behalf of each party thereto.

A practice which developed over the past many years in parts of the London reinsurance market (and elsewhere) whereby the only evidence of a reinsurance contract is either a signed “slip” or a broker’s “Cover Note” has given rise to a number of legal cases which have not only reflected adversely upon the reinsurance profession but also created some important precedents as to the correct legal practice.

e) **Principles of reinsurance**

It is well known that insurance business is transacted upon certain principles which inhere to it and are grounded in a historical evolution arising from the needs of public. These principles apply in like manner to reinsurance and for the same reasons.

These principle are:

- There must be insurable interest.
- The contract is one of the utmost good faith (uberimae fide)
- The reinsurance contract is one of indemnity (though this may not necessarily apply to the original insurance contract.)
- The subject matter of the contract must be in existence at the time
  The contract is made.
i. **Insurable interest**

Insurable interest is vested in the reinsured and the fact that he has issued a policy and accepted liability to his original insured has been held to give him an insurable interest sufficient to enable him to reinsure.

ii. **Doctrine of good faith**

The doctrine of good faith is of universal application as much to reinsurance as to direct insurance. It calls for the disclosure by the reinsured to the reinsurer of every material fact relating to the risk to be insured. A fundamental rule of reinsurance is expressed as follows:-

The foundation of reinsurance is:

- Full information, so far as possessed by the reinsured, as to the risk on which the reinsurance is requested.
- Full information as to the amount retained by the reinsured on the identical property on which the reinsurance is requested.

In recent years the increasing complexities in reinsurance has demanded for a greater degree of attention to the problems of disclosure and materiality. The obligations of the insured (or reinsured) were listed in Anglo-African Merchants Ltd v/s Bagley, 1969 where it was decided that the defense of non-disclosure prevailed if:

- Insured knew of the facts.
- As a reasonable man he should have realized that knowledge of those facts might be regarded as material by a prudent underwriter.
- Those facts were not disclosed; and
- They would have been material; and a fortiori if the insured actually did realize that the facts of which he had knowledge might be regarded as material.

The ordinary rule as to disclosure of material facts operates only up to the time the contract is concluded but under a treaty something more may be required. The mere completion of the contract is but the beginning, not the end, of the reinsurance operations which are contemplated there under.

Every time cession is made under a treaty this initiates an actual reinsurance, and though the details which have to be communicated to the reinsurer may be limited, yet in the general operation of the treaty the reinsured is bound to exercise the utmost good faith towards his reinsurer, even though this must occur after the contract was concluded.

In modern treaty practice this continuing duty of disclosure is normally expressly stated within the terms and conditions of the formal treaty wording.
iii. Principle of indemnity

The principle of indemnity is an integral part of the reinsurance contract and this will be so even though the original contract may not have a pure indemnity.

Thus a personal accident reinsurance is designed to indemnify the reinsured in respect of an amount he has been called upon to pay to his insured, although that payment was itself made not by way of an indemnity there is nothing in this principle, however, which gives any right to an indemnity to any party other than the reinsured and it confers no rights on the original insured.

A reinsurance operates to make good to a reinsured a share of an amount which he has paid or become liable to pay. This distinction is not ordinarily of much significance since a liability to pay is generally followed by a payment, but the fact that the reinsured has not actually made payment to his insured would not enable a reinsurer to withhold his share.

Nevertheless, the reinsurer is entitled to proof of loss and in case of dispute the reinsured must show that the loss has actually occurred and that it is one which rightly falls under the terms of the reinsurance contract (St. Paul Fire & Marine Insurer v/s Morice, 1906).

The distinction between a payment and a liability to pay is of importance also in cases where the reinsured may go into liquidation. In such a case once the insolvent insurer’s liability to pay a claim has been established the reinsurer is liable to pay his share of liability as determined.

iv. Subject matter or reinsurance contract

The subject matter of the reinsurance contract is in effect the reinsured’s liability in the original insurance and since that liability depends on the existence of the subject matter of the insurance it follows that the validity of the reinsurance is equally dependent thereon. This is obvious, since if there is in existence no property answering the description as set out in the original policy, the policy does not attach and any reinsurance made in respect thereof also fails.

For a long time legislators in many parts of the world avoided addressing the problems arising from the writing of policies of insurance across state boundaries, both in respect of rights of buyers of insurances and of enforceability of the contract against the issuers thereof.

Reinsurance being by its very nature not easily comprehensible to the general commercial public and being international in its scope has therefore tended to escape the legislators’ attention other than as a possible source of revenue. The experience of recent years would show that the legal problems are of considerably greater importance.
In case of treaty reinsurance, what is the signing rule for a reinsurance contract?

I. Policy has to be signed by ceding insurer
II. Policy has to be signed by the reinsured
III. Policy has to be signed by or on behalf of each party
IV. Policy has to be signed by insurance broker

B. Reinsurance contract wordings

1. Treaty wordings

Definition

Treaty wordings are reinsurance agreements entered into in writing between the ceding insurer and his reinsurer and embody the terms and conditions of the treaty as agreed between these two parties.

The agreement describes not only the scope of the cover granted by the reinsurers but also the various procedures such as:
- Accounting
- Portfolio movements
- Bordereaux etc., covering the administrative aspects of the treaty

It should be the endeavour of the contracting parties to ensure that the various terms used in the wordings are clear and unambiguous. Many attempts have been made for standardisation of the various clauses common to treaty agreements but in view of the variety of insurance business covered by the treaties and varying needs of the parties concerned, these attempts at standardization have not met with much success.

Thus, there is no such thing as a “standard” wording. The phraseology, sequence of articles, titles and articles themselves vary from contract to contract but through constant usage each one develops a consistency of style.

2. General and special conditions

To simplify preparation of treaty wordings, most insurers and reinsurers have adopted a system of general and special conditions.

a) General conditions: The general conditions are normally the same for all classes of insurance business and

b) Special conditions: The special conditions are specific to each class and type of contract.
Since proportional and non-proportional forms of reinsurance differ in concept, the treaty wordings for these two forms are also different. The reinsuring clauses for both forms are discussed in a later lesson.

**Test Yourself 2**

________ are reinsurance agreements entered into in writing between the ceding insurer and his reinsurer and embody the terms and conditions of the treaty as agreed between these two parties.

I. Reinsurance contracts
II. Treaty wordings
III. Slips
IV. Cover notes

**C. Common clauses in reinsurance contracts**

Reinsurance transactions are contracts embodied in printed documentation. The most common form of reinsurance contract wordings are `treaty wordings`. These incorporate the intentions of both the insurer and his reinsurer. Each clause of the contract wordings is an expression of an agreed intention in respect of each of the various transactions that take place as a routine, when losses occur, when renewal is due, etc.

Reinsurance can be and is effected over many types of risks and classes of insurances. Hence the same clause with reference to the type of risk and class of business tends to be worded to suit the requirement of that risk and class. The text of the same clause may vary from contract to contract but the basic intention remains common in all.

Understanding the intention of a clause is important. Such understanding can then be applied to the actual text of a clause in practice and the requirement of the reinsurance contract understood and interpreted with reference to such text.

Let us examine intentions of some of these common clauses.

1. **Operative clause: Reinsuring the original Risk**

This clause is commonly found in all agreements and describes without any ambiguity the business coming within the scope of a reinsurance contract. The essential features of this clause are:

   a) It brings out clearly the obligatory nature of reinsuring, in that the insurer binds himself to cede and the reinsurer binds himself to accept.

   b) The method of cession is stated.
c) The business as covered is stated. This would usually include direct insurances and exclude retrocessions of inward reinsurances.

d) The territorial scope is stated

e) Maximum liability under the treaty is clearly mentioned as so many times the net retention (number of lines) as well as in amount.

f) The insurer is the sole judge of what constitutes his own risk and to determine his retention accordingly subject to his limits of retention.

Depending upon the nature of the contract, there may be some other provisions such as retention clause to protect the net retention by working excess of loss cover, right to effect priority cessions, ‘common account excess of loss protection’ etc.

2. Commencement and termination

This clause deals with the commencement of reinsurance and the manner and the circumstances in which it can be terminated. The agreement will incept on the date as agreed between the parties say 1st January and may terminate at 31st December if it is an annual contract.

Some of the provisions of a typical commencement and termination clause are reproduced below. These wordings are wider in scope and include provision for notice of cancellation and termination. Termination can arise for reasons such as war. One can split the wordings of this specimen wording to express each intention as to commencement, notice of cancellation and termination separately.

a) Specimen wording

“This agreement shall incept on the date stated in the Schedule and shall remain in force indefinitely, but either party shall be at liberty to terminate it as at 31st December in any year by giving not less than 90 days’ previous in writing. Unless the parties otherwise agree the reinsurers will remain liable for all reinsurances ceded under this agreement until their natural expiry.

In the event of war (whether declared or not) arising between India and the country in which the reinsurers reside or carry on business or are incorporated, this agreement shall be automatically terminated forthwith. If during the period of this agreement postal and/or telegraphic communications should be rendered impossible as a consequence of war, warlike operations, blockade, revolution, civil war or other similar event for a period exceeding thirty (30) days the insurer shall be entitled to terminate this agreement forthwith without giving notice.
Either party shall have the right to terminate this agreement immediately by giving the other party notice:

i. If the performance of the whole or any part of this agreement be prohibited or rendered impossible de jure or de facto in particular and without prejudice to the generality of the preceding words in consequence of any law or regulation which is or shall be in force in any country or territory or if any law or regulation shall prevent directly or indirectly the remittance of any or all or any part of the balance or payments due to or from either party.

ii. If the other party has become insolvent or unable to pay its debts or has lost the whole or any part of its paid up capital or has had any authority to transact any class of insurance withdrawn or cancelled or suspended or made conditional.

iii. If there is any material change in the ownership or control of the other party.

iv. If the country or territory in which the other party resides or has its head office or is incorporated shall be involved in armed hostilities with any other country whether war be declared or not or is partly or wholly occupied by another power.

v. If the other part shall have failed to comply with any of the terms and conditions of this agreement.

All notices of termination in accordance with any of the provisions of this paragraph shall be by telex or telegram and shall be deemed to be served upon dispatch or were communications between the parties are interrupted upon attempted dispatch.

All notices of termination served in accordance with any of the provisions of this Article shall be addressed to the party concerned at its head office or at any address previously designated by that party.

In the event of this agreement being terminated by any cause other than by the prescribed 90 days’ notice expiring on 31st December of any year the insurer shall have the option of making the date of termination effective retroactively from the last day of the previous quarter or 31st December of either the current or previous year as may be deemed appropriate in the circumstances.

During the term of notice of cancellation and until its expiry the reinsurers shall accept new cessions and renew existing cessions in the same manner and in all respects as if no such notice has been given”.
b) Notice of Cancellation at Anniversary Date:

Some reinsurers make it a practice to make their acceptances subject to “notice of cancellation at anniversary date” (NCAD). The reason for this upfront notice of cancellation at anniversary date appears to be that the reinsurer would like to save the trouble of observing the notice period mentioned in the agreement and where he is unsure of his procedures for reviewing the treaty acceptances. This provision of an automatic notice to cancel at anniversary date is also resorted to in facultative acceptances with periods extending beyond one year as there would be no provision for cancellation in such an arrangement.

c) Termination: Exiting an agreement

Annual contracts will run through their contract period and expire on the day agreed between the parties. In the treaties contracted for an indefinite period the agreement will stipulate the notice period and the manner of serving the notice. It is common practice among reinsurers to send what is known as “Provisional Notice of Cancellation” (PNC). This is worded in such a way as to give the notice of termination and at the same time make it “provisional” to enable the reinsurer to review the arrangement and decide on his continuation for the ensuing year.

Though the legality of the word “provisional” may be doubtful in relation to the cancellation, it is necessary to follow up such notices with a definite notice of cancellation if the reinsurer wants to terminate his contract. However, if the reinsurer decides on continuing the contract the provisional notice of cancellation will stand withdrawn.

The above considerations are for cancellation under normal circumstances.

d) Cancellation of reinsurance contract under extraordinary circumstances

This clause also normally provides for cancellation of the reinsurance under certain extraordinary circumstances. In the case of a war between the country of residence of the ceding insurer and the country in which the reinsurer resides or carries on business or is incorporated, the agreement will be automatically terminated.

There may also be provision for termination without notice in the event of certain other circumstances stipulated in the contract. This is known as “Sudden Death Clause”. The agreement may also lay down that in some special circumstances such as insolvency of one of the parties, failure to observe the terms of the agreement etc, it can be terminated forthwith by the other party. The conditions under which this right may be exercised and arrangements for disposal of the liability must be clearly stated.
A case of cancellation following the Terrorist Attack on WTC

Terrorists attacked the World Trade Centre in New York on 11 September 2001 and devastated the two 110 storied buildings to collapse. The total loss was estimated to exceed US$ 70 billion. It is apparent that worldwide less fortunate insurers and reinsurers became insolvent or their capital and free reserves impaired. They needed to protect their financial abilities.

The world reinsurers cancelled terrorism and sabotage cover with effect from 27 September 2001, that is, in a matter of a fortnight. They relied upon an initial statement issued by the President of the USA when he said that the act is a war. Eventually, these were deemed terrorist attack - each plane strike constituting a separate event.

In the process, however, the reinsurers cancelled cover for terrorism and sabotage risks unless they received additional premium with pressure from lenders and lessors mounting upon airlines and oil & gas operators, the aviation and energy reinsurances witnessed a mid-term reconstitution of agreements and a hefty cession of additional premium.

These mid-term revisions do raise questions of validity of an agreement in actual practice. It would be useful to reflect on understanding the intention and application in practice of these clauses.

3. Alterations: By mutual consent

The salient features of this clause are the possibility of making amendments, consent of both the parties, addendum forming integral part of and binding on the parties. “This Agreement may be altered at any time by mutual consent of the parties by addendum and such addendum shall be binding on the parties and be deemed to be an integral part of this Agreement”.

4. Insolvency of other reinsurers

This clause is usually included in a reinsurance agreement whereby it is stated that the loss to the reinsurer will not be increased due to the inability of the ceding insurer to collect from another reinsurer.

5. Access to records: Inspection by reinsurer

This intention of this clause is to give the reinsurer the right to inspect any book or record of the ceding insurer which are relevant to the business reinsured. The inspection, which is at the reinsurer’s expense, must be carried out during normal office hours and the right remains available to the reinsurer so long as any liability under the reinsurance remains unsettled. The clause can restrict inspection to be done only by an appointed representative if at any time a dispute between the parties is subject to arbitration.
6. Errors & omissions: A safety device

This clause is designed to protect the ceding insurer against any inadvertent delays, errors or omissions. The clause expects immediate rectification and nothing in the clause would operate to increase the liability of the reinsurers beyond agreed limits.

Specimen wording: “No errors or inadvertent omissions on the part of the insurer shall relieve the reinsurer of liability in respect of losses hereunder provided that such errors and/or omissions are rectified as soon after discovery as possible”.

7. Intermediaries: Broker’s role

Since many reinsurance transactions are arranged through an intermediary (a broker) it is customary to include this clause identifying the broker by his name and address and providing that the broker is the link for all communications and settlements between the insurer and the reinsurer.

Most intermediary clauses shift all credit risk to reinsurers by providing that:

   a) The ceding insurer’s payments to the intermediary be deemed payments to the reinsurer.

   b) The reinsurer’s payments to the intermediary are not payments to the ceding insurer until actually received by him.

This clause is compulsory in some countries. This clause is not used if reinsurance is directly placed.

Specimen wording: “All correspondence and settlement of accounts pertaining to this agreement shall be through the intermediaries specified in the item of the Schedule”.

8. Arbitration: To avoid court proceedings

This clause is found in all reinsurance agreements and shows the intentions of the parties to resolve disputes as to the interpretation of the agreement or the rights with respect to any transaction involved whether before or after termination of the agreement by arbitration rather than resorting to direct court action.

This is primarily because of the fact that arbitrators as selected would be insurance professionals and understand the issues in dispute better given the background of their local and practical experience. A dispute would be referred to a single Arbitrator or to two Arbitrators, one to be appointed in writing by each party, or in the case of disagreement between the two Arbitrators, to an Umpire to be appointed in writing by a mutually agreed authority.
In the event of the parties failing to appoint an Arbitrator or the Arbitrators failing to appoint an Umpire within a specified time then an Umpire would be appointed by a mutually agreed authority.

As per this clause Arbitrators and the Umpire are required to interpret an agreement as an honorable engagement and to make their award with a view to effecting the general purpose of the agreement in a reasonable manner rather than in accordance with a literal interpretation of the language.

The decision of the Arbitrator or Arbitrators or the Umpire, as the case may be, on all matters including the allocation of costs would be final and binding on both parties. The place for arbitration would be specified, say “Arbitration to take place in Mumbai, India”.

The jurisdiction clause in an agreement would subject jurisdiction to the ceding insurer’s country. In which case when arbitration fails court proceedings would need to be initiated in that country much to the administrative inconvenience of the reinsurer.

This is initially avoided by the process of arbitration. Notwithstanding this clause the parties have a right to action through a court of law within the jurisdiction as agreed. This clause must be read in conformity with the relevant local regulations.

9. **Set-off clause: To facilitate net settlement**

This clause in reinsurance agreements permits each party to net amounts due against those payable before making payment. This settlement method is especially important in the event of insolvency of one party which stops to remit amounts due to the other. This clause is often challenged by creditors and others interested in maximizing the assets of the insolvent party.

**Specimen wordings:** “If during the currency of this Agreement any balances under any other treaty or treaties between the insurer and the reinsurer remain unpaid by one party, the other shall be entitled either to: retain the balance due hereunder until full payment has been made under the other treaty or treaties. OR

Set off such balance against the amount due from the other party”

10. **Accounting clause: Procedures for accounting and settlement**

This clause provides for rendering of accounts and settlement of balances of accounts between the parties to reinsurance agreement. The majority of the proportional treaties operate on quarterly basis for accounting. This can be monthly, half yearly or even yearly basis to render and settle accounts.
The essential features of this clause are:

i. How soon after the close of the relevant accounting period the accounts are to be rendered to the reinsurers.

ii. How and when the accounts are to be confirmed (this may be omitted in some cases) and the balance settled.

iii. Any special provision regarding separate accounts for specified currencies.

iv. Provision, if any, for rendering accounts on underwriting year basis.

**Specimen wording:** “Accounts embodying all transactions under this Agreement shall be rendered quarterly by the Insurer to the Reinsurer as soon as possible after the close of each quarter which shall be deemed to close on the 31st March, 30th June, 30th September and 31st December respectively. The Reinsurer shall confirm the accounts within 15 days of receipt and the balances on either side shall be paid within 15 days after receipt of such confirmation”.

11. **Currency clause: Assists for multi-currency accounting**

Normally the unit of currency expressed in a treaty agreement is the domestic currency of the ceding insurer concerned. Thus a treaty of an Indian insurer will have its maximum liability, cash loss limit etc. expressed in Indian Rupees.

The treaty agreement will normally provide that the accounting and settlement will be in domestic currency but the original currencies shall form the basis of the liability of the reinsurer.

The ceding insurer will also retain the right in the event of major changes in the currency situation or of restrictions on currency transfers to revert partially or wholly to accounting in original currencies.

For the purpose of accounting of various foreign currencies, ceding insurers adopt rates of exchange as at the beginning of the year. However, if during the year there be a fluctuation of more than 10% in the exchange rate of any currency, then an option is provided to use a revised rate of exchange for all transactions as from that date. The reinsurance accounts will be rendered on that basis.

Some ceding insurers render separate accounts for separate currencies within the same treaty; for example in U.S. dollars, Sterling pounds, French francs, etc.

This will involve additional administrative work but minimise the impact of fluctuations in rates of exchange. The settlement of balances are effected on the basis of balances due in respective currencies.
12. Loss advices and accounting of losses

This clause deals comprehensively with all aspects of losses affecting the reinsurance and aims to cover the following points:

a) Losses will normally be debited to the reinsurer in the accounts.

b) If any individual loss exceeds an agreed sum, the ceding insurer may request for immediate settlement of loss by the reinsurer for his share (known as ‘cash loss request’).

c) Advice to be given to the reinsurer when a loss reaches an agreed amount (often the same figure as for cash loss) even if the ceding insurer does not request special settlement.

This is known the `preliminary loss advice'.

d) The ceding insurer has the sole right to adjust, compromise and settle claims and the reinsurer follows the settlement (including ex-gratia payments) being liable for his proportion of all loss adjustment expenses (excluding the insurer’s salaries and overheads). The reinsurer shares proportionately in recoveries if any.

e) Requirements for advising outstanding losses at anniversary date.

Test Yourself 3

Which of the following is designed to protect the ceding insurer against any inadvertent delays, errors or omissions?

I. Operative clause
II. Errors and Omissions
III. Access to records
IV. Alterations
D. Certain special clauses

1. Business Covered: Attachment of cessions - proportional

This clause deals with the attachment of individual cession and is used in respect of automatic forms of reinsurance such as a treaty. This clause intends that reinsurance will apply simultaneously and automatically with that of the ceding insurer as soon as his retention is exceeded with reference to surplus reinsurance and for quota share reinsurance the cession would be simultaneous and automatic with the liability of the ceding insurer under his original acceptance.

The clause may also provide that if a loss occurs between the time of the acceptance of a risk and the entry of the cession in the reinsurance register, the ceding insurer would retain not less than the amount usually retained according to his rules and practice for risks of that particular class. Any limitation as to the period to effect a cession is also stated in this clause.

Exclusions to this clause then restricts the business as covered and is complementary to ‘business covered’ as appearing in the operative clause. Specific exclusions of categories of risks and individual hazards will be stated. All contracts will provide for the exclusion of war and nuclear risks except risk of war in marine and personal accident classes.

Exclusion of terrorism and sabotage risks by reinsurers in September 2001 following terrorist attacks caused undue hardship to ceding insurers and their insured’s. Ways to provide protection with government support were devised by each country. The practice of reinsurance underwent a change in these respects with these risks substantially protected outside automatic reinsurance arrangements. This follows the pattern set by the separate nuclear risk pools which are in existence for many years.

Exclusions include obligatory reinsurances and retrocessions of inward treaty reinsurances. These constitute a class by themselves and are very different from the direct or facultative business. Further, accumulations of risk are very common from inward treaty reinsurances. It is practically impossible to identify the accumulations. Facultative reinsurance is more akin to direct business and hence not excluded.

Specimen wording: “In no event shall this agreement protect the insurer in respect of:

a) War and Civil War
b) Obligatory Reinsurances
c) Any loss or liability accruing to the Insurer, directly or indirectly and whether as Insurer or Reinsurer from any Pool of Insurers or Reinsurers formed for the purpose of covering Atomic or Nuclear Energy risks.”
2. Business Covered: Insuring clause non-proportional

This clause states in what circumstances a recovery is available to the ceding insurer and the extent of that recovery. The two essential factors for a recovery under a non-proportional reinsurance are that the ceding insurer has sustained a loss covered by the reinsurance and that such loss exceeded a previously agreed threshold limit, also called the ‘deductible’. Therefore, the clause specifies:

   a) The amount of the deductible

   b) The reinsurer’s limit of liability

   c) The basis on which the reinsurance applies, namely the deductible and limit linked to the basis of:

      i. ‘Rach loss each risk’ - risk excess of loss
      ii. ‘Rach loss occurrence’ - Catastrophe excess of loss
      iii. ‘In the aggregate each annual period’ Stop loss and aggregate excess of loss

If coverage is on ‘each loss each risk’ basis, there may be a maximum limit per loss occurrence. If coverage is on a ‘loss occurrence’ basis, there may be an annual aggregate linked to the reinstatement provision.

It can happen that the ceding insurer arranges layered excess of loss cover. The reinsurer on a particular layer takes into account only the deductible in respect of his layer of excess and is not interested to know if the ceding insurer has or has not recovered amounts due from reinsurers of the underlying layers. However the clause must clearly state the position of the reinsurers for each layer.

3. Underwriting: Retention and limits

The terms on which the reinsurer makes an acceptance are based on the information provided by the ceding insurer during negotiations in respect of his limits, retentions and other related matters. If the ceding insurer introduces any change in his business approach during the currency of the contract, the consent of his reinsurers is necessary to ensure continuance of the reinsurance agreement.

Specimen wording: “the ceding insurer undertakes not to introduce any change in its established acceptances and underwriting policy in respect of the classes of business to which this agreement applies, without prior approval of the reinsurers and any reinsurance arrangements relating thereto shall be maintained or deemed to be maintained unaltered for the purpose of this agreement.”
4. **Original conditions: Follow the fortunes**

This clause states that reinsurances are fully subject to the same terms and conditions as the original insurance. Premium is to be paid to the reinsurer at the same rate as received by the ceding insurer.

If premium is paid at net rates the clause would then specify the deductions to be made from gross rates to arrive at net rates.

The “follow the fortunes” clause is subject to considerable variation in practice and is therefore the subject of great discussion. Simply stated it means that the reinsurer follows his ceding insurer in his original contract of insurance with his insured. In essence, the insurer and the reinsurer share the same interest.

Following the fortunes does not apply to the ceding insurer’s financial losses and should the insurer go into liquidation, the reinsurer is entitled to his share of premiums and will pay his share of the losses due to the insured’s of his bankrupt ceding insurer.

The alternative risk financing method of `financial reinsurance` is an exception to this traditional concept of following the fortunes, in that, the reinsurer follows his ceding insurer in the latter’s business fortunes in its entirety.

5. **Net retained lines: Protecting net retention**

This is a clause which allows the ceding insurer to effect other reinsurances in priority so that there is an additional treaty which protects the net account only e.g., where the treaty operates after proportional treaty or facultative cessions.

The insolvency clause usually forms a part of this clause. The Net Retained Lines clause will normally be omitted where the treaty covers the reinsured’s gross account or where the cover operates for common account.

**Specimen wording:** “This agreement shall only protect that portion of any insurance or reinsurance which the ceding insurer retains net for his own account combined with cessions made by him to his Quota Share treaty. Reinsurers’ liability hereunder shall not be increased due to the inability of the ceding insurer to collect from any other Reinsurers (other than the aforesaid Quota Share Reinsurers) any amounts which may have become due from them whether such inability arises from the insolvency of such other Reinsurers or otherwise.”
6. **Ultimate net loss: Amount for XL recovery**

**Ground up loss:** This is the amount prior to application of retention and reinsurance.

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<th>Definition</th>
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<td>The entire amount of an insurance loss, including deductibles but net of salvage and recoveries is known as <code>ground up loss</code>.</td>
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<td>The <code>ultimate net loss</code> is its other extreme.</td>
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<th>Definition</th>
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<tr>
<td>Ultimate Net Loss is the amount of the ceding insurer`s loss which is eligible for recovery under the terms of an excess of loss treaty.</td>
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This clause follows the Net Retained Lines clause. A specific provision within this clause allows claims to be settled to the ceding insurer before all recoveries have been made and the Ultimate Net Loss is finally determined.

**Specimen wording:** “The term ‘ultimate net loss’ shall mean the sum actually paid by the ceding insurer in respect of any loss occurrence including expenses of litigation, if any, and all other loss expenses of the Insurer (excluding, however, office expenses and salaries for officials of the Insurer) but salvages and recoveries, including recoveries from all reinsurances and retrocession’s, other than underlying reinsurances provided for herein, shall be first deducted from such loss to arrive at the amount of liability, if any, attaching hereunder. All salvages, recoveries of payments recovered or received subsequent to any loss settlement hereunder shall be applied as if recovered or received prior to the aforesaid settlement, and all necessary adjustments shall be made by the parties hereto. Nothing in this clause shall be constructed to mean that a recovery cannot be made hereunder until the Insurer’s ultimate net loss has been ascertained.”

7. **Loss occurrence: Definitions**

The definition of what constitutes one loss for the purpose of an excess of loss reinsurance will vary considerably according to the type of reinsurance and the nature of the original business reinsured.

Therefore, a precise definition of one event is sought to be achieved by incorporation of a time limitation known as “hour’s clause”, in respect of such perils. The time element is commonly 72 consecutive hours but may vary, by agreement, for certain perils in different parts of the world (see definition given above). The area limitation for riots is usually one city or town or state.
The ceding insurer is given the right to choose when such a loss period commences and the location of the area for riot losses, provided that the same individual loss is not included in more than one occurrence, and provided any chosen period does not start earlier than the first loss to the ceding insurer from that particular catastrophe.

The phrase “loss occurrence” would mean all individual losses arising out of and directly occasioned by one catastrophe. However, the duration and extent of any “loss occurrence” so defined would be limited to:

a) 72 consecutive hours as regards a hurricane, typhoon, windstorm, rainstorm, hailstorm and or tornado.

b) 72 consecutive hours as regards earthquake, seaquake, tidal wave, and or volcanic eruption

c) 168 consecutive hours and within the limits of any one State as regards riots, civil commotions and malicious damage

d) 168 consecutive hours for any other catastrophe of whatsoever nature and no individual loss from whatever insured peril, which occurs outside these period or areas, shall be included in that “loss occurrence”.

The ceding insurer may choose the date and time when any such period of consecutive hours commences and if any catastrophe is of greater duration than the above periods, then he may divide that catastrophe into two or more “loss occurrences”, provided no two periods overlap and provided no period commences earlier than the date and time of the happening of the first recorded individual loss to the ceding insurer in that catastrophe”.

In liability excess of loss reinsurances, the concept of what constitutes one loss is more complicated and some of the common methods followed in this regard are as under:

a) Occupational disease claims are aggregated into one occurrence for all employees of one insured contracting the same disease during one original policy period

b) Products liability losses are dealt with on a ‘batch’ system, that is, all claims arising from the manufacture or distribution of one faulty batch or lot of a product are regarded as one occurrence.

c) Fidelity losses, which are covered on a ‘losses discovered basis’, can be limited to the acts of one individual or more than one if acting in collusion. Independent acts of embezzlement would be regarded as separate losses for the purpose of reinsurance.
8. Reinstatement: Restoring diminution in cover

In the event of any portion of the limit of cover being reduced by settlement of a loss the amount of limit of cover so reduced will be automatically reinstated from the time of commencement of the loss occurrence until the expiry of the agreement.

Premium would be charged as agreed. It is usual to note one free reinstatement followed by prorata additional premium for subsequent reinstatements, provided more than one reinstatement is agreed.

If the agreement includes a limitation on the reinsurer’s liability during any contract period then the clause will specify 1) the extent of the reinsurer’s liability for a number of losses that may affect the cover, 2) the aggregate limit that is imposed, and 3) consideration to be paid for the reinstatement/s. The clause, therefore, will show:

a) The extent of reinstatement expressed as a multiple of the per loss limit and as an amount.

b) Whether the reinstatement is free or subject to an additional premium

c) How such additional premium is to be calculated

d) Whether the reinstatement provisions apply equally to all classes of business covered by the treaty.

9. PML excess clause: Error in the estimated probable maximum loss (PML)

When reinsurance is effected based upon probable maximum loss and the estimate goes wrong it would adversely affect the both retained loss of the reinsured and proportional share of loss to reinsurers. In order to protect themselves, reinsurers incorporate this clause.

Specimen wording: “If, in the event of a loss, the PML underlying the parties’ reinsurance agreement is exceeded, the additional liability to be borne by the reinsurer shall be limited to 50 percent of the amount that would have resulted had the PML not been exceeded. This provision does not apply, however, to losses caused by the impact of aircraft. Should the application of this clause give the direct insurer and reinsurer shares in a loss different from the shares they would have had without this clause being applied, the reinsurer shall reimburse an appropriate share in the original premium to the direct insurer. This clause shall override other terms and conditions set forth in the treaty, in particular the errors clause.”
10. Extension of reinsurance cover: To cover losses continuing post expiration of reinsurance

It is likely that a reinsurance cover expires when a loss event is in state of occurrence. This clause assists to include the consequence of such loss beyond the expiry date as if it was within the period of reinsurance through extended expiry of cover.

Specimen wording: “If this agreement should expire or be terminated while a loss occurrence covered hereunder is in progress it is understood and agreed that, subject to the other conditions of this agreement, the reinsurer hereon is responsible as if the entire loss or damage had occurred prior to the expiration of this agreement, provided that no part of that loss occurrence is claimed against any renewal of this agreement.”

11. Downgrade clause: Protecting reinsurance security

Another clause in reinsurance agreements that has emerged relevant is the downgrade clause. This clause allows the reinsured to cancel the reinsurance contract (and then seek a new reinsurer) if the reinsurer is downgraded by the rating organizations. Other similar clauses require the reinsurer to post security in the event of a rating downgrade. The triggers for these clauses vary from a single step downgrade to a specific downgrade level (e.g. "B+").

12. Cut Through endorsement: Insuring against insolvency of insurer

A cut-through provision allows a party not in privity with the reinsurer to have rights against the reinsurer under the reinsurance agreement. These cut-through rights generally are limited and are triggered only by specific events enumerated in the cut-through provision. Cut-through provisions may take the form of a specific clause or an endorsement attached to the reinsurance agreement.

A cut-through clause is usually employed where the ceding insurer has an insufficient credit rating to attract large commercial policyholders. It is triggered on the ceding insurer's default in payment, insolvency, or upon entry of liquidation or rehabilitation order, a time when the direct insured most needs the security.

It can be used in other situations, however, such as in a fronting arrangement, where the reinsurer is not licensed in a particular country and intends to retain all of the risk from the original policy. A cut-through provision often makes the underlying insured a beneficiary under the contract. Thus, a reinsurer usually will draft the cut-through provision in such a way that when the reinsurer makes payments to a third-party he will not be required to make payments to the reinsured or to a statutory receiver.
13. Errors & omissions clause

Any inadvertent error or omission on the part of either the reinsured or the reinsurers shall not relieve the other party from any liability which would have attached to this Reinsurance, provided that such error or omission is rectified immediately upon discovery, and shall not impose any greater liability on the reinsurers than would have attached if the error or omission had not occurred.

14. Hours clause

The term Loss Occurrence shall mean anyone accident or series of accidents arising out of and directly occasioned by one event.

In respect of motor own damage

The term Loss Occurrence shall mean all individual losses arising out of and directly occasioned by one catastrophe. However, the duration and extent of any Loss Occurrence so defined shall be limited to:

a) 72 consecutive hours as regards to Hurricane, Typhoon, Windstorm, Rainstorm, Hailstorm and/or Tornado

b) 72 consecutive hours as regards to Earthquake and Seaquake having the same epicentre, Tidal Wave and/or Volcanic Eruption

c) 168 consecutive hours for any other catastrophe of whatsoever nature

It is being understood that if any single insured peril listed above shall give rise to another insured peril or perils, then all individual losses arising out of and directly occasioned by all such insured perils shall be treated as one catastrophe. Further, should the catastrophe involve an insured peril under (a) or (b) above as well as an insured peril under (c) above, the Company may decide which period to submit their claim.

The Company may choose the date and time when any such period of consecutive hours commences and if any catastrophe is of greater duration than the above periods, the Company may divide the catastrophe into two or more Loss Occurrences, provided no two periods overlap and provided no period commences earlier than the date and time or the happening of the first recorded individual loss to the Company in that catastrophe.

15. Index clause

It is the intention of this Agreement that the priority of the Company and the maximum liability of the Reinsurer as set out therein shall retain their relative values which exist at the date specified in the Schedule(s).
At the time of payment of any claim the change in relative monetary value shall be ascertained from the latest available Index as follows:

**IMF wage index**

On payment of any claim the priority of the Company and the maximum liability of the Reinsurer shall be increased or decreased in proportion to the increase in the Index from the date of commencement of this Agreement to the time of payment of the claim, provided such Index deviates by 10% or more. If the fluctuation of the Index is below 10% the present Clause shall not be applied.

The time of payment of any claim for the purpose of this Agreement shall be deemed to be as follows:

a) Where no award is made by the Courts, the actual date upon which payment is made by the Company.

b) The date an award is made by a Court (if no appeal is made).

c) The date an award is made by the Appeal Court if the case goes to Appeal.

d) In the event of a loss being settled in more than one payment, notwithstanding anything to the contrary contained in sub-paragraphs (i), (ii) and (iii) above, any advance payment in respect of any claimant shall be added to the final payment to the above-mentioned claimant and the index used at the time of the final payment shall be the one employed to ascertain the priority of the Company in respect of all payments to the above-mentioned claimant.

16. Claims co-operation clause

In case of an occurrence which may give rise to a claim in excess of the limit stated hereafter, it is a condition precedent to any liability to pay under this reinsurance contract that the Reinsured shall immediately upon becoming aware of such occurrence inform the lead Reinsurer the right to co-operate with the Reinsured in the adjustment of the claim or in the investigation of the occurrence and/or to appoint a representative to do so on their behalf.

Claims Cooperation Limit: INR ........ Estimated Gross Claim amount

17. Claims control clause

Whereas this policy is subject to reinsurance, it is agreed that the reinsurers shall have complete control of the adjustment of all claims indemnifiable under the policy, and to this end shall receive immediate notification from the insurers of any claim or possible claim indemnifiable under the policy. In the event of any legal proceedings the reinsurers agree to follow the fortunes of the insurers and shall consider themselves bound by local laws, precedents and practices.
18. Political risks exclusion clause

Notwithstanding any provision to the contrary within this reinsurance or any endorsement thereto it is agreed that this reinsurance excludes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any of the following regardless of any other cause or event contributing concurrently or in any other sequence to the loss:

a) War, invasion, act of foreign enemy, hostilities or warlike operations (whether war be declared or not), civil war;

b) Permanent or temporary dispossession resulting from confiscation, commandeering or requisition by any lawfully constituted authority;

c) Mutiny, civil commotion assuming the proportions of or amounting to a popular or military uprising, insurrection, rebellion, revolution, military or usurped power, martial law or state of siege or any of the events or causes which determine the proclamation or maintenance of martial law or state of siege;

d) Any act of terrorism: For the purpose of this endorsement an act of terrorism means an act, including but not limited to the use of force or violence and/or the threat thereof, of any person or group(s) of persons, whether acting alone or on behalf of or in connection with any organisation(s) or government(s), committed for political, religious, ideological, or ethnic purposes or reasons including the intention to influence any government and/or to put the public, or any section of the public, in fear.

This endorsement also excludes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any action taken in controlling, preventing, suppressing or in any way relating to points (a), (b), (c) and/or (d) above.

If the Reinsurer allege that by reason of this exclusion, any loss, damage, cost or expense is not covered by this reinsurance the burden of proving the contrary shall be upon the Reinsured.

19. Terrorism exclusion clause

The reinsurance provided under this Agreement shall not apply to the following:

“Any loss, cost or expense arising out of or related to, either directly or indirectly, any “Terrorist Activity,” as defined herein” this exclusion applies regardless of any other cause or event that in any way contributes concurrently or in any sequence to the loss, cost or expense.
For the purposes of this exclusion,

a) “Terrorist Activity” shall mean any deliberate, unlawful act that:

i. Is declared by any authorized governmental official to be or to involve terrorism, terrorist activity or acts of terrorism; or

ii. Includes, involves, or is associated with the use or threatened use of force, violence or harm against any person, tangible or intangible property, the environment, or any natural resources, where the act or threatened act is intended, in whole or in part, to

✓ Promote or further any political, ideological, philosophical, racial, ethnic, social or religious cause or objective of the perpetrator or any organization, association or group affiliated with the perpetrator;

✓ Influence, disrupt or interfere with any government related operations, activities or policies;

✓ Intimidate, coerce or frighten the general public or any segment of the general public; or

✓ Disrupt or interfere with a national economy or any segment of a national economy; or

iii. Includes, involves, or is associated with, in whole or in part, any of the following activities, or the threat thereof:

✓ Hijacking or sabotage of any form of transportation or conveyance, including but not limited to spacecraft, satellite, aircraft, train, vessel, or motor vehicle;

✓ Hostage taking or kidnapping

✓ The use of any biological, chemical, radioactive, or nuclear agent, material, device or weapon;

✓ The use of any bomb, incendiary device, explosive or firearm;

✓ The interference with or disruption of basic public or commercial services and systems, including but not limited to the following services or systems: electricity, natural gas, power, postal, communications, telecommunications, information, public transportation, water, fuel, sewer or waste disposal;

✓ The injuring or assassination of any elected or appointed government official or any government employee;
The seizure, blockage, interference with, disruption of, or damage to any government buildings, institutions, functions, events, tangible or intangible property or other assets; or

The seizure, blockage, interference with, disruption of, or damage to tunnels, roads, streets, highways, or other places of public transportation or conveyance.

b) Any of the activities listed in section A above shall be considered Terrorist Activity except where the Company can conclusively demonstrate to the Reinsurer that the foregoing activities or threats thereof were motivated solely by personal objectives of the perpetrator that are unrelated, in whole or in part, to any intention to:

i. Promote or further any political, ideological, philosophical, racial, ethnic, social or religious cause or objective of the perpetrator or any organization, association or group affiliated with the perpetrator;

ii. Influence, disrupt or interfere with any government related operations, activities or policies;

iii. Intimidate, coerce or frighten the general public or any segment of the general public; or

iv. Disrupt or interfere with a national economy or any segment of a national economy.

The clause states that premium is to be paid to the reinsurer at the same rate as received by the ceding insurer.

I. Original conditions
II. Underwriting
III. Net retained lines
IV. Ultimate net loss

Test Yourself 4

The__________clause states that premium is to be paid to the reinsurer at the same rate as received by the ceding insurer.
E. Reinsurance documentation: Slip, cover & note agreement

1. Slip

Preparation of a slip is the first step in the reinsurance placement process. This is done in consultation with a broker. The slip serves the purpose of evidencing eventual acceptance of a share of the risk / treaty ceded by signing underwriters.

2. Cover note

The slip is followed by a broker`s cover note to evidence the placement, protection and terms of cover. In case of direct reinsurance the reinsurer provides the cover note with similar information. It is usual in practice to note the slip form used as both cover note and wordings in the case of lines of insurance where a measure of standardization is achieved.

3. Treaty wordings

It is usual practice to summarise the essential conditions of the contract in a treaty slip. The treaty wording proper, which confirms the various points agreed to by correspondence or even orally by the ceding insurer and his reinsurer, is prepared after the treaty has come into effect, which exemplifies the confidence and utmost good faith between the two contracting parties.

Broadly, there are two ways of constructing treaty wordings.

a) In the first approach, the various items such as limits, number of lines, cash loss limit etc. are mentioned along with the articles in the body of the agreement.

b) In the second approach, the wordings are split into two parts with the treaty wordings forming the body of contract containing only narration of the various articles and a schedule attached to the wordings which set forth the specific terms. Amendments to the treaty are usually carried out using consecutively numbered addenda.

The importance of proper treaty documentation cannot be overemphasised. Each reinsurance contract must be supported by an agreement to avoid any problems in its administration. The agreement sets out the terms and conditions of the contract and must be drawn in a clear and unambiguous style.

A flow chart must be maintained to control the receipt of agreements and addenda and a continuous review of the chart made for follow-up of documents not received.
The agreements, when received, must be got properly stamped and scrutinised by a responsible official. Presence of any unacceptable conditions or absence of standard clauses should at once be taken up with reinsurer or ceding insurer.

After the document has been duly stamped, scrutinised and found in order, it is signed in duplicate and the unstamped copy returned to the reinsurer or ceding insurer or the concerned broker. A similar procedure is followed for addenda except that they may not be stamped.

4. Indian Stamps Act 1899

As per Indian Stamps Act 1899, it is obligatory to stamp a document executed in India. The treaty reinsurance agreement executed in India will therefore require to be stamped.

The Stamp Act further provides that every instrument chargeable with duty executed out of India may be stamped within three months after it is received in India. Inward treaty agreement from the foreign ceding companies will require to be stamped in India.

The procedure followed in regard to the stamping of inward treaty agreements in India is as follows: Before execution of the agreement, one copy is forwarded to the Stamp Office and got stamped with as special adhesive stamp for the required amount, as applicable.

Though the agreements are normally received in duplicate, only the copy to be retained by the Indian reinsurer is got stamped. Both copies of the agreement are then signed and the unstamped copy is returned to the ceding insurer, retaining the stamped copy in the reinsurer's records.

In regard to outward treaties, similar procedure is followed and the copy to be retained in India is got stamped with special adhesive stamp for the required amount, as applicable. If the agreement is between two Indian companies, the document is got stamped by the ceding insurer.

Test Yourself 5

The________serve the purpose of evidencing eventual acceptance of a share of the risk / treaty ceded by signing underwriters.

I. Slips  
II. Cover notes  
III. Reinsurance contracts  
IV. Treaty wordings
Summary

(a) The parties to the reinsurance contract are the reinsured and reinsurer.

(b) In the case of a facultative reinsurance, a policy is issued and signed by the reinsurer whereas treaty wording, which contains reciprocal undertakings, is signed by or on behalf of each party thereto.

(c) The consideration for the reinsurance contract is the reinsurance premium paid by the reinsured to the reinsurer.

(d) The subject matter of the reinsurance contract is in effect the reinsured’s liability in the original insurance and since that liability depends on the existence of the subject matter of the insurance, it follows that the validity of the reinsurance is equally dependent thereon.

(e) Treaty wordings are reinsurance agreements entered into in writing between the ceding insurer and his reinsurer and embody the terms and conditions of the treaty as agreed between these two parties.

(f) To simplify preparation of treaty wordings, most insurers and reinsurers have adopted a system of general and special conditions. The general conditions are normally the same for all classes of insurance business and the special conditions are specific to each class and type of contract.

(g) Since proportional and non-proportional forms of reinsurance differ in concept, the treaty wordings for these two forms are also different.

(h) Reinsurance transactions are contracts embodied in printed documentation.

(i) Each reinsurance contract must be supported by an agreement to avoid any problems in its administration. The agreement sets out the terms and conditions of the contract and must be drawn in a clear and unambiguous manner.

(j) The agreements, when received, must be properly stamped and scrutinised by a responsible official. Presence of any unacceptable conditions or absence of standard clauses should at once be taken up with the reinsurer or ceding insurer.
Answers to Test Yourself

Answer 1

The correct option is III.

In case of treaty reinsurance, the policy has to be signed by or on behalf of each party.

Answer 2

The correct option is II.

Treaty wordings are reinsurance agreements entered into in writing between the ceding insurer and his reinsurer and embody the terms and conditions of the treaty as agreed between these two parties.

Answer 3

The correct option is II.

Errors and Ommissions clause is designed to protect the ceding insurer against any inadvertent delays, errors or omissions.

Answer 4

The correct option is I.

Original conditions clause states that premium is to be paid to the reinsurer at the same rate as received by the ceding insurer.

Answer 5

The correct option is I.

The slip note serves the purpose of evidencing eventual acceptance of a share of the risk / treaty ceded by signing underwriters.
Self-Examination Questions

Question 1

Which of the following clauses allows the reinsured to cancel the reinsurance contract and then seek a new reinsurer if the reinsurer is downgraded by the rating organizations?

I. PML excess clause
II. Downgrade clause
III. Loss occurrence clause
IV. Original conditions clause

Question 2

___________ is the amount of the ceding insurer`s loss which is eligible for recovery under the terms of an excess of loss treaty.

I. Ground up loss
II. Ultimate net loss
III. Net retained loss
IV. Gross loss

Question 3

The___________ clause allows the possibility of making amendments, consent of both the parties, addendum forming integral part of and binding on the parties.

I. Access to records
II. Alterations
III. Errors and Ommissions
IV. Arbitration

Question 4

Which of the following clauses is commonly found in all agreements and describes without any ambiguity the business coming within the scope of a reinsurance contract?

I. Operative clause
II. Downgrade clause
III. Commencement and Termination clause
IV. Sudden death clause
Question 5

With the____________clause, the ceding insurer can make a provision for ‘termination without notice’ in the event of certain other circumstances stipulated in the contract.

I. Operative clause
II. Downgrade clause
III. Commencement and Termination clause
IV. Sudden death clause

Answers to Self-Examination Questions

Answer 1

The correct option is II.

Downgrade clause allows the reinsured to cancel the reinsurance contract and then seek a new reinsurer if the reinsurer is downgraded by the rating organizations.

Answer 2

The correct option is II.

Ultimate net loss is the amount of the ceding insurer’s loss which is eligible for recovery under the terms of an excess of loss treaty.

Answer 3

The correct option is II.

The alterations clause allows the possibility of making amendments, consent of both the parties, addendum forming integral part of and binding on the parties.

Answer 4

The correct option is I.

The operative clause is commonly found in all agreements and describes without any ambiguity the business coming within the scope of a reinsurance contract.

Answer 5

The correct option is IV.

With the Sudden death clause, ceding insurer can make a provision for ‘termination without notice’ in the event of certain other circumstances stipulated in the contract.
CHAPTER 9
REINSURANCE ACCOUNTING

Chapter Introduction

In this chapter we will discuss the format and methods of reinsurance accounting. We will also briefly look into the taxation aspects and exchange control regulation related to reinsurance accounting.

Learning Outcomes

A. Special nature of reinsurance accounts
B. Formats and methods for reinsurance accounting
C. Taxation aspects
D. Exchange control regulation
CHAPTER 9
SPECIAL NATURE OF REINSURANCE ACCOUNTS

A. Special nature of reinsurance accounts

1. Reinsurance accounting:

Definition

American Accounting Association defines accounting as “Accounting is the process of identifying, measuring and communicating financial information to permit informed judgement and decisions by users of the information”.

People who are interested in the financial information are:

a) **Within the insurer** - owners or shareholders, management and employees,

b) **Outside the insurer** - government regulatory bodies, taxation authorities, creditors, those with whom the insurer deals or trades, etc.

c) **Others** such as financial analysts, trade associations and competitors.

Reinsurance accounting is comprehensively connected with technical, financial, legal and underwriting aspects of reinsurance.

The significance of accounting for reinsurance trading techniques must be understood and appreciated with reference to:

- the class of business,
- the type or combination of types of reinsurance methods as used and
- The forms of arrangements as placed directly and through brokers.

Uninsurable natural perils such as earthquakes, floods and windstorms became insurable owing to spread of risk through reinsurance. Is profit earned on such business really a profit? Is it not a reserve against a future liability for a disaster? If one loss in 25 or 30 years can wipe out the entire profits of these many years how does one tax such profits? Legal issues and tax matters are significant to reinsurance accounting.

2. Proportional Treaty Accounts

Most treaties in practice are “blind”, i.e. no details of individual cessions are supplied to the reinsurer by the ceding insurer.

The reinsurer receives quarterly or periodical accounts showing:

- premiums,
- claims paid,
- reserves released and
- retained etc.

as per the terms agreed between the reinsurer and the ceding insurer.
As bordereaux is provided in very few cases, mainly in respect of contracts applying to specialist classes of business, the preparation of the accounts is the responsibility of the ceding insurer who alone possesses the requisite information. Some companies render half-yearly or even annual accounts, in order to reduce the administrative cost in producing quarterly accounts.

However, quarterly accounting system appears to be advantageous because the reinsurer is in better position to watch the development of the treaty results, which is vital to him should he be required to make any decisions relative to that business. Secondly, if periodicity is longer than quarterly, cash flow will be delayed and, as on average, balances tend to be payable to the reinsurer, delay in the remittance of balances results in a loss of investment income for reinsurers as also exchange gains or losses which may arise due to currency fluctuations.

Normally, there will be a provision in the treaty contract stipulating the periodicity at which accounts will be rendered by the ceding insurer, say, within three months of the close of the quarter. There may be a further stipulation that the accounts will need to be confirmed by the reinsurer within a month of receipt and settlement will be effected by the debtor party within one month following confirmation of accounts. If the transaction is through a broker there may be further delays involved as accounts will be routed through the broker.

Therefore, it is the duty of the ceding insurer to ensure that the accounts are rendered to the reinsurers within the time allowed by the agreement and also either party must settle balances due to the other party within the agreed period. Since many transactions are effected through brokers they are involved in checking that accounts passing through their offices are contractually correct and are rendered at the correct time.

They also arrange settlement between the parties. This forms part of the overall service provided by the broker to the ceding insurer and the reinsurer for which remuneration is by way of brokerage paid by the reinsurer as an agreed percentage of ceded premium.

a) **Fire and Accident Proportional Reinsurance:**

The accounts for this type of business are normally rendered on an “Accounts Year” basis. The premiums are usually shown at original gross rates and the reinsurance commission rate is then applied.

b) **Marine Proportional Reinsurance:**

The accounts for this type of business are normally rendered on an “Underwriting Year” basis. The premiums are usually shown net of acquisition costs, agency commission, brokerage and any discount allowed to the insurer. Hence, the reinsurance commission will cover only the ceding insurer’s expenses. This is usually termed as overriding commission.
3. Non-Proportional Reinsurance:

No commission is payable under this type of business as such factors will be taken into account when arriving at the rate for the treaty though brokerage is determined separately.

Test Yourself 1

For which of the following type of business will the accounting be rendered on an ‘Accounts Year’ basis?

I. Fire and accident proportional reinsurance
II. Fire and accident non proportional reinsurance
III. Marine proportional reinsurance
IV. Marine non proportional basis

B. Formats and methods for Reinsurance accounting

1. Proportional Treaty Accounts

As a result of the international nature of the reinsurance market, coupled with the size and resources of ceding insurers and reinsurers, formats of reinsurance accounts are many and varied.

Over the years a number of attempts have been made to introduce standard formats which would greatly simplify the handling of accounts, but these have met with only limited success and have not found universal acceptance.

Thus, there is no standard format as such for rendering of accounts but it should take into account the basic features as set out in the treaty contract.

A specimen of a treaty account is set out below:

<table>
<thead>
<tr>
<th>Ceding Insurer</th>
<th>Insurance Co. Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treaty</td>
<td>First Surplus Fire Treaty</td>
</tr>
<tr>
<td>Period of account</td>
<td>1st Quarter `10</td>
</tr>
<tr>
<td>Reinsurer</td>
<td>Reinsurance Co. Ltd.</td>
</tr>
<tr>
<td>Reinsurer’s share</td>
<td>Currency 1%</td>
</tr>
</tbody>
</table>
### Formats and Methods for Reinsurance Accounting

**Chapter 9**

#### 100% account

<table>
<thead>
<tr>
<th>Description</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premiums</td>
<td>60,000</td>
<td></td>
</tr>
<tr>
<td>Portfolio premium entry at 1-1-10</td>
<td></td>
<td>70,000</td>
</tr>
<tr>
<td>Portfolio loss entry at 1-1-10</td>
<td></td>
<td>24,000</td>
</tr>
<tr>
<td>Commission at 45%</td>
<td>27,000</td>
<td></td>
</tr>
<tr>
<td>Taxes and charges</td>
<td>1,800</td>
<td></td>
</tr>
<tr>
<td>Excess of loss premium for common account @ 0.75%</td>
<td></td>
<td>450</td>
</tr>
<tr>
<td>Claims paid</td>
<td>35,000</td>
<td></td>
</tr>
<tr>
<td>Common account excess of loss recoveries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premium reserve retained @40%</td>
<td>24,000</td>
<td></td>
</tr>
<tr>
<td>Premium reserve released</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest on reserve released</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax deducted on interest</td>
<td></td>
<td>2,000</td>
</tr>
<tr>
<td>Credit for cash loss paid</td>
<td>67,750</td>
<td></td>
</tr>
<tr>
<td>Balance due to reinsurers</td>
<td></td>
<td>2,000</td>
</tr>
<tr>
<td>Balance due to - Reinsurance Co. Ltd @ 1%</td>
<td>1,56,000</td>
<td>1,56,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,56,000</td>
<td>1,56,000</td>
</tr>
<tr>
<td><strong>Balance due to</strong> Reinsurance Co. Ltd @ 1%</td>
<td>677.50</td>
<td></td>
</tr>
</tbody>
</table>

Some ceding insurers divide the account into two parts:

- The first part called the technical account showing items relating to the reinsurer’s share of the technical result for the period and:
- The second part called the financial account will include the balance brought forward from previous account, premium and loss reserves and interest thereon, loss settlements made, cash loss credit and the final balance which is due for settlement.

It is not necessary that all the items appearing in the above specimen should appear in the account for each accounting period. For example,

#### Example

Portfolio premium and loss entries will appear in the first quarter’s account, and portfolio premium and loss withdrawals in the last quarter’s account.

**a) Premium**

What is ‘premium’ may vary according to local practice, the terms of a contract or the class of business. In some markets gross premium may be subject to deduction of such items as licence fees, fire brigade charges, local taxes etc., whilst in others these will be accounted separately.

With marine and aviation business it is usual for premiums to be accounted net of original acquisition costs and therefore only subject to a relatively low reinsurance overriding commission.
b) Commission

Reinsurance commission is an item paid by the reinsurer to the ceding insurer and is expressed as a percentage of the premium. The function of the reinsurance commission is to reimburse the ceding insurer with pro-rata amount of what he has paid in acquiring the business - agency commission and expense of management. The ceding insurer incurs considerable expenses in obtaining his business.

Example

✓ In prospecting,
✓ In issuing of policies and
✓ In adjustment of claims

The reinsurer benefits from such services. As he does not directly contribute to these particular overheads, it is reasonable for the reinsurer to pay for these services indirectly through the reinsurance commission.

2. Methods for Reinsurance Commission

a) Flat Rate of Commission:

This is very easy to account as the commission payable is determined by applying the agreed percentage of commission to the premiums ceded less returns and cancellation. There may be different rates of fixed commission for different types of business within a treaty.

b) Sliding Scale Commission:

This is a method of arriving at a rate of commission based on the loss ratio of the treaty during any one treaty year or during any one underwriting year. The loss ratio is usually calculated as the percentage that the incurred losses bear to the earned premiums.

This is calculated as follows:

\[
\text{Loss ratio} = \frac{\text{Incurred Losses}}{\text{Earned Premiums}} \times 100
\]

Example

Where the earned premiums amount to Rs. 20,000 and the incurred losses to Rs. 10,000, the loss ratio will be:

\[
\frac{10,000}{20,000} \times 100 = 50\%
\]
Example of calculation of commission on sliding scale

This is normally based on the ratio of earned premiums to the incurred losses

<table>
<thead>
<tr>
<th>Premiums Ceded during Year</th>
<th>178,436</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less: Incoming Premium Reserve</td>
<td>(65,658)</td>
</tr>
<tr>
<td>Less: Outgoing Premium Reserve</td>
<td>244,094</td>
</tr>
<tr>
<td>Less: Outgoing Premium Reserve</td>
<td>(71,374)</td>
</tr>
<tr>
<td>Losses Paid During Year</td>
<td>151,362</td>
</tr>
<tr>
<td>Add: Outgoing Loss Reserve</td>
<td>39,789</td>
</tr>
<tr>
<td>Less: Incoming Loss Reserve</td>
<td>191,151</td>
</tr>
<tr>
<td>Less: Incoming Loss Reserve</td>
<td>(64,499)</td>
</tr>
<tr>
<td>Total</td>
<td>126,652</td>
</tr>
</tbody>
</table>

Loss Ratio = \( \frac{1,26,652 \times 100}{172,720} = 73.33\% \)

Commission rate is directly related to the loss ratio.

Earned Premiums

Definition

Premiums ceded and included in the accounts for the year in question

Add

Reserve for unexpired risks (premium reserve) brought forward from the previous year (add or deduct portfolio premiums)

Less

Reserve for unexpired risks (premium reserve) at the end of the current year.
Incurred Losses

**Definition**

Losses paid and included in the accounts for the year in question

**Add**

Outstanding losses (loss reserve) at the end of the current year

**Less**

Outstanding losses (loss reserve) at the end of the previous year (add or deduct portfolio losses).

**Variations to the formula given above and these are:**

\[
\text{Inurred Losses} \times \frac{100}{\text{Written Premiums}} \times \frac{1}{\text{Written Premiums}}
\]

**Losses Paid + Losses Outstanding**

**Underwriting Year Basis**

As the information required to calculate the actual rate of commission payable is not known until the end of the year in question there is always an arrangement for the payment of a provisional commission.

The loss ratio, when calculated, is compared with an agreed scale and the commission rate will be as indicated. There are however fixed upper and lower limits to the scale.

The operation of a sliding scale tends to stabilise the results under a treaty, reducing the profit to the reinsurer in good years and likewise the loss in bad years. Table of “Sliding Scale of Commission” given below is as an example.

The ratios and percentages will differ from Agreement to Agreement and also for type of business and country of ceding insurer:
Example of Sliding Scale of Commission Table

“Rate of Commission”

<table>
<thead>
<tr>
<th>Loss Ratio</th>
<th>Rate of Commission</th>
</tr>
</thead>
<tbody>
<tr>
<td>65% or more</td>
<td>32½%</td>
</tr>
<tr>
<td>64% but less than 65%</td>
<td>33%</td>
</tr>
<tr>
<td>63% but less than 64%</td>
<td>33½%</td>
</tr>
<tr>
<td>62% but less than 63%</td>
<td>34%</td>
</tr>
<tr>
<td>61% but less than 62%</td>
<td>34½%</td>
</tr>
<tr>
<td>60% but less than 61%</td>
<td>35%</td>
</tr>
<tr>
<td>59% but less than 60%</td>
<td>35½%</td>
</tr>
<tr>
<td>58% but less than 59%</td>
<td>36%</td>
</tr>
<tr>
<td>57% but less than 58%</td>
<td>36½%</td>
</tr>
<tr>
<td>56% but less than 57%</td>
<td>37%</td>
</tr>
<tr>
<td>55% but less than 56%</td>
<td>37½%</td>
</tr>
<tr>
<td>54% but less than 55%</td>
<td>38%</td>
</tr>
<tr>
<td>53% but less than 54%</td>
<td>38½%</td>
</tr>
<tr>
<td>52% but less than 53%</td>
<td>39%</td>
</tr>
<tr>
<td>51% but less than 52%</td>
<td>39½%</td>
</tr>
<tr>
<td>50% but less than 51%</td>
<td>40%</td>
</tr>
<tr>
<td>49% but less than 50%</td>
<td>40½%</td>
</tr>
<tr>
<td>48% but less than 49%</td>
<td>41%</td>
</tr>
<tr>
<td>47% but less than 48%</td>
<td>41½%</td>
</tr>
<tr>
<td>46% but less than 47%</td>
<td>42%</td>
</tr>
<tr>
<td>45% but less than 46%</td>
<td>42½%</td>
</tr>
</tbody>
</table>

If agreed provisional commission chargeable, until actual commission is determined, it would be a mid point between minimum and maximum commission. In the above example, 37½% would probably be the provisional commission payable and adjustable at the end of the treaty period.

c) Overriding Commission

When a reinsurer receives business as an inward retrocession, the reinsurer will allow the ceding insurer an additional commission (overriding commission) over and above any share of the original commission that he may pay.

The overriding commission payable by the reinsurer may be calculated in various ways i.e.
- on gross premium or
- on net premium or
- partial net premiums

This must be clearly stipulated in the treaty agreement.
Chapter 9

 Formats and Methods for Reinsurance Accounting

D) Brokerage:

Where a reinsurer receives a share of a treaty via a broker he will normally agree to pay brokerage. The broker will either include his brokerage in the actual statement of account for the business or render a separate statement for brokerage due. The percentage of brokerage payable is applied to premiums written on gross, net or partial net basis and this must be clearly stipulated in the treaty agreement.

3. Profit Commission:

The various methods by which the profit commission is calculated are as follows.

Profit commission is an additional percentage payable to a ceding insurer on profitable treaties in accordance with an agreed formula. It is therefore an incentive for ceding insurers to produce profitable business.

There are two types of profit commission statements:

a) “Accounting Year” basis and
b) “Underwriting Year” basis.

Fire and Accident proportional treaties are usually on an accounting year basis and Marine and Aviation proportional treaties on an underwriting year basis. It is rare for a non-proportional treaty of any class to have a profit commission clause. However, if this is provided, it will usually be on an underwriting year basis.

a) “Accounting Year” basis

A profit commission on an “Accounting Year” basis requires all transactions for the same treaty period, without reference to underwriting year, to be included in the same profit commission statement. A typical example would include the following items:

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commissions</td>
<td>Premium Reserve brought forward</td>
</tr>
<tr>
<td>Claims</td>
<td>Loss Reserve brought forward</td>
</tr>
<tr>
<td>Miscellaneous charges</td>
<td>Premiums</td>
</tr>
<tr>
<td>Premium Reserve carried-forward</td>
<td></td>
</tr>
<tr>
<td>Loss Reserve carried forward</td>
<td></td>
</tr>
<tr>
<td>Allowance for reinsurer’s expenses</td>
<td></td>
</tr>
<tr>
<td>Profit for Year</td>
<td></td>
</tr>
</tbody>
</table>

The reserves mentioned above are statistical reserves and do not relate to any cash reserves the ceding insurer may be retaining from the reinsurer although they may be replaced by “Portfolio Transfers”. A profit commission on accounting year basis would not be adjusted in subsequent years as long as the treaty continues without cancellation.
b) Underwriting Year basis

A profit commission on an “Underwriting Year” basis requires all transactions of an underwriting year, without reference to accounting year, to be accounted to the same year for the purposes of determining the profit of that underwriting year.

It is general practice, where this type of profit commission applies, to defer the preparation of the first statement until at least one year after the end of the underwriting year. Readjustment statements are then rendered in accordance with the treaty terms until all liability has expired.

There can be a provision to close an “Underwriting Year’s” accounts after a specified period and transfer any outstanding liability to the next open “Underwriting Year”. All subsequent transactions relating to all preceding “Underwriting Years” are then included in the profit commission statement for the current open “Underwriting Year”.

An example of this type of profit commission would be the same as illustrated for the “Accounting Year” statement except that there would be no premium reserve brought forward / carried forward and no loss reserve brought forward.

c) Aggregation if required

When a treaty includes provision for a profit commission, the ceding insurer must prepare a statement to indicate whether the treaty is showing a profit or a loss. It is normal procedure, where a treaty covers more than one currency and/or class of business, to combine the aggregate results of each section under the treaty in order to determine the overall treaty profit or loss for the year.

In addition to the aggregating of the results for subsections under a treaty, provision is sometimes made whereby the results of more than one treaty are combined to determine annual profit.

Having arrived at the profit for the year concerned, it is necessary to consider the basis on which the profit is to be determined and on which the profit commission payable is calculated.

This will be one of the following formula:
- Losses carried forward to extinction.
- Losses carried forward for a limited period.
- On the current year’s result with any offset for past losses. This is usually associated with a profit commission on an underwriting year basis.
- Three year’s average i.e. 1/3rd of the aggregate profit of the current and preceding two years.
If the final result is a loss no profit commission is payable. However, if the final result is a profit the profit commission percentage will be applied. The percentage might be a flat rate says 25% or it could be on a sliding scale such as: 25% on profit equal to 10% of the premiums of the year plus 35% on profit equal to next 10% of the premium of the year plus 50% on remaining profit.

### Example

Profit for Year Rs. 500  
Premium Income Rs. 2,000  
Profit Commission on flat rate at 25% = Rs. 125 (25% x Rs. 500)

Profit Commission on sliding scale:

- 25% on Rs. 200 = 50
- 35% on Rs. 200 = 70
- 50% on Rs. 100 = 50

Year’s Profit Rs. 500 & Profit Commission Rs 170

Before arriving at the year’s result for a losses carried forward to extinction basis, the result of the previous year’s statement must be considered. If this is a profit it is ignored, but if it is a loss it must be carried forward and deducted from the profit or added to the loss of the current year’s statement. No profit commission is paid in the current year unless the final result is an overall profit.

If the loss is to be carried forward for a limited period, it is most important that a breakdown between each year’s results is maintained of the final loss. Ceding insurers tend to include the loss carried forward from the previous year in the body of the profit commission statement whereas it is much clear if they keep each year’s results separate to ensure the correct application of this clause.

For treaties on a three year average basis the results of the current and two previous years are taken; if this is profitable, profit commission is payable at the rate applicable on 1/3 of this profit.

To bring this method into operation, it is introduced in the following manner:

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit Commission</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Profit Commission payable on 100% Profit</td>
</tr>
<tr>
<td>2nd</td>
<td>Profit Commission payable on 50% of total profit for years 1 &amp; 2</td>
</tr>
<tr>
<td>3rd</td>
<td>Profit Commission payable on 1/3 of total profit for years 1, 2 &amp; 3</td>
</tr>
<tr>
<td>4th</td>
<td>Profit Commission payable on 1/3 of total profit for years 2, 3 &amp; 4</td>
</tr>
</tbody>
</table>
d) Cancellation: Profit Commission Calculation

When a treaty is cancelled, where the profit commission is on an accounting year basis, it is normal practice for no profit commission statement to be rendered in the year it is cancelled. A final statement is rendered when all liability has expired (i.e. when all the premiums have been received and all the claims paid).

For a three years’ average calculation, the result of the cancellation year plus the result of the run off period constitutes the result of the third year of this calculation.

### Example

An example of a profit commission calculation follows:

**Insurance Co. Ltd.**

**First Surplus Fire Treaty**

Profit Commission Statement for the period 1-1-`10 / 31-12-`10

<table>
<thead>
<tr>
<th></th>
<th>Premium</th>
<th></th>
<th>Loss</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Portfolio entry)</td>
<td>(as at 1-1-`10)</td>
<td>Premium</td>
<td>Loss</td>
</tr>
<tr>
<td>Commission</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Claims paid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes and charges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management expenses@2.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Portfolio withdrawal as at 31-12-`10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premium</td>
<td>2,300,000</td>
<td></td>
<td>700,000</td>
<td></td>
</tr>
<tr>
<td>Loss</td>
<td>500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outgo</td>
<td>3,500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premium</td>
<td>1,035,000</td>
<td></td>
<td>600,000</td>
<td></td>
</tr>
<tr>
<td>Loss</td>
<td>805,000</td>
<td></td>
<td>649,500</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,155,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                          |                    |       |
| Profit for the year `10 | (-)                | 345,000|
| Loss for the year `09   |                    | 50,000 |
| Profit for the year `08 |                    | 395,000|
| Average Profit         |                    | 690,000|
| Profit Commission @20% |                    | 230,000|
|                          |                    | 46,000 |
CHAPTER 9

FORMATS AND METHODS FOR REINSURANCE ACCOUNTING

Example

An example of a profit commission calculation where losses are carried forward to extinction is as under:

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Loss for the year</td>
<td>$(50,000)</td>
</tr>
<tr>
<td></td>
<td>Profit Commission</td>
<td>Nil</td>
</tr>
<tr>
<td>2011</td>
<td>Loss for the year</td>
<td>$(100,000)</td>
</tr>
<tr>
<td></td>
<td>Loss brought forward from 2010</td>
<td>$(50,000)</td>
</tr>
<tr>
<td></td>
<td>Total Loss</td>
<td>$(150,000)</td>
</tr>
<tr>
<td></td>
<td>Profit Commission</td>
<td>Nil</td>
</tr>
<tr>
<td>2012</td>
<td>Profit for the year</td>
<td>$(300,000)</td>
</tr>
<tr>
<td></td>
<td>Loss brought forward from 2010 and 2011</td>
<td>$(150,000)</td>
</tr>
<tr>
<td></td>
<td>Net Profit</td>
<td>$(150,000)</td>
</tr>
<tr>
<td></td>
<td>Profit Commission at 20%</td>
<td>$(30,000)</td>
</tr>
</tbody>
</table>

Example

An example of a super profit commission calculation is as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium ceded</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Net adjusted profit for the year (Net of P.C.)</td>
<td>350,000</td>
</tr>
</tbody>
</table>

Super Profit Commission:

- 20% on profit up to 10% of premium (i.e. 20% of 250,000) = 50,000
- 75% on balance profit (i.e. 75% of 350,000 less 250,000) = 75,000

Total Super Profit Commission = 125,000

4. Reserves

A ceding insurer may retain a proportion of the ceded premium against the reinsurer’s discharge of his obligations and is usually considered as representing the unearned portion of premium ceded.

This is a legal requirement in many countries and most proportional treaties contain the provision in one form or another.
Accounting would follow the agreement as to:

a) What percentage of the premium is to be retained by the ceding insurer
b) When and how the reserve is to be retained and when released (for example, to be retained at 40% of each quarter’s premium and to be released in the corresponding quarter of next year)
c) Interest payable on reserve retained
d) How reserve is to be treated if the treaty is terminated; it is usually applied to the reinsurer’s proportion of loss settlements and the balance released on expiry of all liabilities.

In some countries, there is a legal requirement regarding retention of loss reserves based on estimated outstanding losses at a given date. The deposit is established and adjusted at anniversary dates of the treaty but can also be adjusted in quarterly accounts.

The loss reserve may be used for settlement of claims but generally settled claims are debited in accounts and the reserve is held intact until it is reconstituted in accordance with the treaty terms. The loss reserve is usually fixed at a rate of 100 or 90% of the outstanding losses and is a further safeguard to the ceding insurer in the event of the insolvency of the reinsurer.

5. Premium and Loss Portfolios

The ceding insurer may at his option require the reinsurer to assume liability for his proportion of risks current at the date of commencement of the reinsurance agreement. In consideration for which the ceding insurer will credit the reinsurer with an amount equal to a percentage agreed of the premiums, without deduction of commission, as accounted in the four quarterly statements immediately preceding the commencement date of reinsurance.

In the event of the ceding insurer exercising such option the reinsurer will also be credited with his proportion of 90% of the estimated losses outstanding as at the date of commencement for which the reinsurer will assume liability for settlement of all losses as outstanding. Should the actual payments in respect of such outstanding losses differ materially from the amount credited to the reinsurer at commencement the ceding insurer will have the right to effect appropriate adjustment.

6. Cessions Running to Expiry

One method followed in the event of cancellation of a treaty is to allow the cessions to run to their natural expiry. In the early days of the treaty reinsurance, when there were very few alterations to the reinsurers under treaties, this was the method adopted. Today, however, the number of reinsurers on a treaty is usually larger and besides care has to be taken of increases or decreases in their shares. If the natural expiry method is to be followed, two sets of accounts will have to be rendered, one to the old reinsurers in respect of unexpired cessions and the other to the new reinsurers.
As the year progresses this leads to tremendous multiplicity of accounts in respect of all years still open. This involves considerable administrative work and therefore this method is expensive and not practical to operate. This was gradually replaced by the portfolio transfer or clean cut method.

7. Valuation of the Portfolios

The method of valuation of the portfolios or the calculation of portfolio premium is considered next. Strictly speaking, for the portfolio premium to be mathematically correct, the pro-rata premium applicable to the unexpired portion of each cession would have to be calculated separately. The total of all these premiums would give the correct gross portfolio to be withdrawn by the ceding insurer from his current reinsurer, subject to deduction of reinsurance commission, and transferred to the renewing reinsurer. This is known as portfolio transfer.

In view of the large number of cessions under a treaty this method would involve considerable expense and work for the ceding insurer. For this reason, a simpler method of calculating portfolio transfer as a percentage of the premiums of the previous year developed. This method is generally adopted under the majority of surplus and quota share treaties. The percentage of premium for effecting portfolio withdrawal and entry is usually 35 to 40 percent and which is not subject to any deduction for reinsurance commission.

a) 50% Method:

The portfolio transfer percentage of 35 to 40% is arrived at by 50% method. If it is assumed that the expiry periods of cessions under the treaty are uniformly spread through the treaty year the mean expiry period can be fixed at the middle of the year. It may be assumed that approximately 50% of the premiums are unexpired at the end of the year. Deducting a commission of 30% this leaves a portfolio of 35%. If some allowance is to be made for alterations in the composition of the business or for any increase in the unexpired proportion of the business portfolio transfer can be fixed at 40%. Thus the percentages in use are 35% to 40%.

b) Other Methods:

Other methods in use for the calculation of portfolio premium are termed the “eighth”, “twelfth” and twenty-fourth” systems. These obviate, to a certain extent, the effect of the unforeseen changes in the treaty without the necessity of calculating the portfolio on a pro-rata basis.

Under the twenty fourth system, the premiums of the year are divided into twelve parts according to the month in which such premiums are ceded under the treaty, and on the assumption that the majority of each month’s premiums will usually expire in the middle of the month, a statement can be drawn up to show the unexpired portions of each month’s business at the end of the year.
Thus at 31st December premiums for the previous January have half a month or one twenty-fourth to run; the premium for February a month and a half or three twenty-fourths to run.

This calculation is carried on till the month of December when eleven months or twenty-three of twenty-fourths of the premium is unexpired exposure. The figures arrived at for each month are totalled and reinsurance commission is deducted. This gives the net portfolio premium for withdrawal to be given to next year’s reinsurers. This figure will be more accurate than the fixed percentage calculation but under both methods no allowance is made for any large proportion of long or short term cessions.

**Example**

An example is given to illustrate the twenty-fourth system (eighth and twelfth systems can be worked out on similar lines).

<table>
<thead>
<tr>
<th>Month</th>
<th>Premium ceded to treaty</th>
<th>Proportion of unearned premium At 31st December</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>51000</td>
<td>1/24</td>
<td>2125</td>
</tr>
<tr>
<td>Feb</td>
<td>51000</td>
<td>3/24</td>
<td>6375</td>
</tr>
<tr>
<td>Mar</td>
<td>52000</td>
<td>5/24</td>
<td>10800</td>
</tr>
<tr>
<td>Apr</td>
<td>101000</td>
<td>7/24</td>
<td>29450</td>
</tr>
<tr>
<td>May</td>
<td>102000</td>
<td>9/24</td>
<td>38250</td>
</tr>
<tr>
<td>June</td>
<td>102000</td>
<td>11/24</td>
<td>46750</td>
</tr>
<tr>
<td>July</td>
<td>110000</td>
<td>13/24</td>
<td>59600</td>
</tr>
<tr>
<td>Aug</td>
<td>110000</td>
<td>15/24</td>
<td>68750</td>
</tr>
<tr>
<td>Sep</td>
<td>115000</td>
<td>17/24</td>
<td>81450</td>
</tr>
<tr>
<td>Oct</td>
<td>116000</td>
<td>19/24</td>
<td>91800</td>
</tr>
<tr>
<td>Nov</td>
<td>116000</td>
<td>21/24</td>
<td>101500</td>
</tr>
<tr>
<td>Dec</td>
<td>117000</td>
<td>23/24</td>
<td>112125</td>
</tr>
<tr>
<td>Total</td>
<td>1143000</td>
<td></td>
<td>648975</td>
</tr>
</tbody>
</table>

Less Commission: 30% 194692

Portfolio withdrawal: 454283

It will be observed that portfolio withdrawal works out to approximately 40% of the premium ceded to the treaty. This method is the same as that followed by insurers in providing for unexpired risks in their financial accounting except that here commissions are also deducted.
c) **Clean-Cut Method:**

Portfolio premium withdrawal takes care of liability for unexpired risk at the cancellation date or at the end of the treaty year. However, there may be claims outstanding as on that date, the liability for which can also be withdrawn from the outgoing reinsurers.

This is done by debiting the outgoing reinsurers with their proportion of 90% or 100% of estimated outstanding losses which is termed “portfolio loss withdrawal”.

The same amount is credited for their respective proportion to the incoming reinsurers, which is termed as “portfolio loss entry”. Should there be material difference between losses finally settled and portfolio loss amount, such entries, can be reopened and adjusted by invoking the relevant provision in the treaty contract.

Where both portfolio premium and portfolio loss are withdrawn from all the outgoing reinsurers at the year end and corresponding entries are given to the renewing reinsurers on the treaty for the New Year the method is known as “clean-cut” method. This method is usually followed in most of the property proportional treaties as it saves considerable administrative work.

Any premium reserves withheld are also released simultaneously with portfolio withdrawal and the reserve corresponding to the premium of the previous year is withheld in the first account of the next year.

8. **Interest and Tax**

In treaties where there is provision for retention of reserves, the ceding insurers will allow the reinsurers interest ranging between 2% and 4% or slightly higher.

This interest is calculated at the agreed rate and credited in the quarter in which reserve is released. It will be subject to tax as per local regulations and thus the net return to the reinsurer will be very low.

9. **Non-proportional Treaty Accounts**

The requirements for preparation of accounts under non-proportional treaties are different to those for proportional treaties and are generally of a much simpler nature.

Losses are usually dealt with on a cash loss basis and are payable by individual reinsurers upon the rendering of appropriate information by the ceding insurer. Therefore accounts under non-proportional treaties are substantially in respect of premiums. They are not subject to premium or claim reserves or profit commission.
a) Premiums

The premiums to be paid by the reinsured to the reinsurer will normally be calculated at a rate which has been specified in the contract and that rate will be applied to the ceding insurer’s total net premium after ceding to proportional reinsurances. A flat rate of premium can also be agreed.

Normally provision will be made for payment of a minimum and deposit premium based upon an estimated total net premium and the deposit premium will be subject to an adjustment premium when the ceding insurer’s final premium income becomes known. The deposit premium is usually paid in quarterly installments. It can also be paid annually in advance.

Example

An example of a minimum and deposit premium account through a broker is given below:

From : Broker
Reassured : Insurance Co. Ltd.

Fire Excess of Loss Cover 2010
10,000,000 XS 5,000,000

We have to advise you of the following premium which will be credited to your account following on settlement to us by the Reassured. Please make necessary accounting entries in your books.

<table>
<thead>
<tr>
<th>Minimum &amp; deposit premium for 2010</th>
<th>300,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less: brokerage @ 10%</td>
<td>30,000</td>
</tr>
<tr>
<td></td>
<td>270,000</td>
</tr>
</tbody>
</table>

Payable in 4 equal installments of
On 1st January 2010 67,500
On 1st April 2010
On 1st July 2010
On 1st October 2010
Your 10% share amounts to 6,750.00
Payable in 4 equal installments of 1,687.50

The adjustment account based on the actual premium income accounted in respect of the portfolio for the period concerned is prepared and rendered as soon as the premium amount is known at the end of the accounting year.
b) Rate of Exchange

Normally the unit of currency expressed in a treaty agreement is the domestic currency of the ceding insurer concerned; thus a treaty of an Indian insurer will have its maximum liability, cash loss limit etc. expressed in Indian Rupees. The treaty agreement will normally provide that the accounting and settlement will be in domestic currency but the original currencies shall form the basis of the liability of the reinsurer.

The ceding insurer will also retain the right in the event of major changes in the currency situation or of restrictions on currency transfers to revert partially or wholly to accounting in original currencies. This condition is usually found in treaties covering domestic as well as overseas business.

For the purpose of conversion of various foreign currencies, insurers adopt rates of exchange at the beginning of the year. However, if there is a fluctuation of more than 10% in the exchange rate of any currency, the revised rate will be used for all transactions as from that date.

The reinsurance accounts also will be prepared on the same basis. Actual settlements follow rates advised by central bank of the country with control on exchange rate or as prevailing in the forex market. The difference of the actual settlement to the accounted amount is booked as gain / loss in foreign exchange.

Some insurers render treaty accounts in separate currencies for the same treaty; for example in U.S. dollars, Sterling pounds, French francs etc. This will involve additional administrative work but minimise the impact of fluctuations in rates of exchange.

The settlement of balances can also be effected on the same basis that is in the respective currencies. The effect of fluctuations in rates of exchange is best appreciated when the results of a treaty in original currency is compared with the accounted amounts, say in Indian Rupees. One set of statistics may show a profit to reinsurers, whilst the other may show a loss incorporating loss in exchange.

c) Brokerage

In all reinsurance placements through brokers, statements of accounts and balances are sent through them. Statements of accounts are prepared by brokers based upon ceding insurers statements to render to reinsurers for confirmation to settle. Brokerage is payable by the reinsurer and not by ceding insurer. Statements of accounts do not reflect brokerage which is usually shown in a letter of enclosure or a separate additional statement. If balances are due to reinsurer brokers usually settle balances net of brokerage. Otherwise they send separate brokerage statements and call for payments from reinsurer.
d) **Inward Accounts**

A successful inward account can be operated only with proper management controls on prompt accounting and settlement of balances. The various records maintained in this regard and their functions are set out below.

i. **Accounts flow chart**

This chart helps in keeping a watch on receipt of accounts and follow-up of delayed accounts. The columns in the chart for proportional treaties will be:
- Broker,
- Insurer,
- Arrangement,
- 1st Quarter,
- 2nd quarter,
- 3rd Quarter,
- 4th Quarter,
- Supplementaries,
- outstanding claims and
- Profit Commission statement.

For non-proportional business, the columns will be for deposit premium will be:
- 1st installment,
- 2nd installment,
- 3rd installment,
- 4th installment,
- Adjustment Account and
- Outstanding claims.

As and when an account is received, the date of receipt is entered in the appropriate column. The chart needs to be looked into regularly for maintaining an effective follow-up for accounts.

A management report may be produced at say monthly intervals, showing accounts which are overdue by 3 months, 6 months, etc. Generally, an account is to be confirmed speedily and settlement sought for or made.

This chart can also incorporate the respective balances for each quarter and dates of settlement and can be used for follow-up of outstanding balances. A management report on the lines described above can also be drawn up for overdue balances be period and amount.

Alternatively, the control on settlement can be exercised through personal ledgers.
ii. Cash loss register

Generally treaties provide for specific advices of large losses and special settlements of such losses by way of a cash settlement. All such advices should be checked with brief details to ensure that they are in conformity with the underwriting information.

A register is to be maintained arrangement wise for all large losses showing
- Date of advice,
- Brief particulars of loss,
- Estimated Loss,
- Paid amount,
- Date of payment of cash loss and quarter in which credit is received.

For cash loss payments made to the ceding insurer, the reinsurer should ensure that a credit is given in quarterly account, when the loss appears under paid losses.

Normally, such payments and credits are treated as financial transactions, as opposed to technical items appearing in an account, and it is very important to maintain a close watch for credits to be given for payments made.

iii. Checking of accounts

As mentioned earlier, speedy checking of accounts and their confirmation is essential. This is done with reference to the brief details.

Other records maintained and functions involved in accounts are:
- Treaty journal
- Reserves journal
- Retrocession processing
- Personal ledger for balances
- Checking of profit commission statements

If the insurer has a retrocession treaty, it has to work out the retrocession accounts as per retrocession’s instructions and render such accounts to retrocessionaires.

The checking of profit commission statements is done best with reference to the statistical sheets for each arrangement. Reconciliation of balances is done periodically. In addition, the functions of Accounts Department will involve settlement of balances, liaison with exchange control authorities, audit requirements, assistance in preparation of final accounts etc.
e) Closing of Annual Accounts

Every insurer while closing his annual accounts at the end of the year examines all claims outstanding in the books in order to make a reasonable estimate for provisions to be made in the revenue accounts, so that he can present as accurate a picture as possible.

Based on the estimates made for gross claims, the insurer will work out the outstanding claims position in respect of his various outgoing treaties, which will be included in the annual accounts as well as advised to the respective reinsurers.

f) Format of Annual Accounts:

The format to be followed in preparing revenue accounts and financial statements of balance sheet and profit and loss account are prescribed by local insurance legislation of each country.

In India, the relevant laws are:

i. the Insurance Act, 1938 as amended, Insurance Rules framed under the Act,
ii. the Companies Act, 1956 as amended and
iv. Regulations under IRDA Act, 1999 require returns to be filed with the IRDA in respect of the audited accounts.

As per the Insurance Act, 1938 every insurer is required to prepare at the expiration of each calendar year, in the prescribed forms, a balance sheet, a profit and loss account and revenue account for each class of insurance business.

There is provision for audit of annual accounts and specified number of copies to be furnished to the IRDA.

The Insurance Rules, framed under the Act, provide among other items, that the following shall be maintained:

- Record of insurance companies with which common and facultative reinsurance arrangements of reinsurance treaties are entered into.
- Record of facultative reinsurance ceded and accepted.
- Information on security level of reinsurers is to be monitored and maintained.
- Total placement to each reinsurer is required to be monitored and reported to IRDA.
g) **Convergence to IFRS (International Accounting Standards):**

The Institute of Chartered Accountants of India (ICAI) has planned to have Indian accounting standards converge fully with the International Financial Reporting Standards (IFRS) by 2011. As of year 2010 more than 120 countries across the world implement IFRS. Eventually this is expected to lead to convergence with the more stringent and transparent Generally Accepted Accounting Standards (GAAP) of US. Convergence to IFRS enhances Indian companies' ability to raise and attract foreign capital at low cost.

It assists to reduce multiple reports for Indian multinational companies that have to prepare their financial statements under the Generally Accepted Accounting Principles (GAAP) of the US. The impact of convergence to IFRS is significant upon non-life insurance and reinsurance business.

ICAI and IRDA have worked in defining accounting standards for regulatory compliance by insurers in India. IRDA has set out detailed guideline for compliance with the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB). As of year 2010 ICAI has evaluated and submitted its recommendations to IRDA to assist for convergence.

i. **Changed disclosure requirements:**

IFRS requires both Gross and Net presentation of reinsurance transactions.

The following shall not be offset:

- Reinsurance assets against related reinsurance liabilities
- Income or expense from reinsurance contracts against the expense or income from the related insurance contracts
- Reinsurer’s share of Policy Liabilities as an Asset

IFRS requires impairment of reinsurance assets be tested IFRS requires Liability Adequacy Test be done and suitable adjustments be made by increasing liabilities or decreasing assets. Prior to IFRS reinsurance transactions presented net and not distinctly.

ii. **IRDA requires insurers to disclose -**

- the process of determining the assumptions of assets and liabilities.
- the insurance risk, sensitivity to insurance risks, concentration of insurance risk, exposure to market risk under embedded derivatives and
- key performance indicators, including lapsation rate, claim ratio and premium collection.

Besides, IFRS has stipulated valuation methods and disclosure for Investments.
10. Closing Proportional Treaty Accounts

Since delays are involved in preparation and rendering of proportional treaty accounts to a reinsurer this usually presents a major problem to a reinsurer. He will find it difficult to ascertain the profit or loss on each of his acceptances when he closes his financial year. Besides classes of business such as marine, motor and other liability business with long tail present problems in estimating outstanding provisions for claims.

Thus in respect of proportional acceptances only two quarters premiums and claims may be advised and accounted in the books of the reinsurer for a particular year and the remaining two quarters would get accounted in the following year.

Therefore, it may not be possible to exactly match the accounted figures with the treaty year results. But over a period, these two sets of figures ought to match with each other, unless outstanding claims provisions made in the books of the reinsurer are substantially different from the actual outstanding claims.

11. Closing Non-proportional Treaty Accounts

In non-proportional accounts, the treaty year is the same as the reinsurer’s accounting year. The main problem is in the long duration of claims reporting with the eventual cost of claims not being known for many years. For this reason, many reinsurers overseas operate their non-proportional account on a funded basis. Each year the fund is examined to ensure its adequacy with regard to outstanding claims. Any deficit arising in the fund must be replaced by a transfer from revenue reserves.

In assessing surplus, each treaty year would normally be examined after three years, and any surplus arising would be transferred to revenue reserves. A surplus is not normally removed from a fund until three years after the year to which it relates, since there would be insufficient information available before the expiration of three years.

12. Additional Reserves:

The format of an annual account is normally laid down by local legislation. As far as reserves for unexpired risks are concerned, the practice in India is to provide for 50% on net premium of Fire and Miscellaneous Accident business and 100% on Marine business. These percentages are the maximum allowed in the computation of profits of general insurance companies as per Indian Income Tax Act, 1961.

The normal format of computation of profit as laid down by legislations in various countries does not provide for an additional reserve or catastrophic reserve. Also, income tax authorities will not allow it as a deduction before assessment of tax. Therefore, in most countries an insurer or reinsurer who wants to set up an additional catastrophic reserve will have to do so out of profit after tax.
CHAPTER 9

TAXATION ASPECTS

Test Yourself 2

In which of the following reinsurance commission methods will the commission payable be determined by applying the agreed percentage of commission to the premiums ceded less returns and cancellation?

I. Flat rate of commission
II. Sliding Scale of commission
III. Overriding commission
IV. Profit commission

C. Taxation aspects

The system of taxation varies from country to country.

Example

Examples of differences as compiled by Swiss Re inform the following:

a) Stamp duties, which get calculated on the amount of premium, commission, profit commission, losses or any other basis.
b) Special taxes on insurance premiums which cannot be recovered from the insured
c) Withholding tax on the interest paid on reserve deposit
d) Tax on international transfers
e) A withholding tax deducted at source on an assumed income of the reinsurer with the head office abroad
f) A charge for the fire brigade and other institutions concerned with fire-fighting and fire-prevention
g) Certification duty on reinsurance contracts.

The objective for a reinsurer, over a period of years (usually five years), is to obtain a profit on the reinsurances he accepts. Such profit will help to cover expenses, assist to constitute reserves for fluctuation and catastrophe and to pay a dividend to the shareholders. When a reinsurer’s tax-bill becomes too heavy for him to bear on his own he transfers it to the ceding insurer by reducing the ceding commission or profit commission. In turn if the insurer fails to cover his expenses and reports a smaller profit margin he pays less tax. It is obvious therefore that reinsurance is sensitive to taxation.

Taxation imposed on reinsurers on the basis of an assumed income is suggested as a possible way of solving budget problems. Fortunately only very few countries levy this kind of tax. At this point it should be mentioned that the profit of the reinsurer is extremely difficult to determine and that reinsurers do need to have reserves. The insurer-reinsurer relationship is long term and its objective is to stabilize the insurer’s results. For this reason reinsurance is exposed to and accepts fluctuations in results.
The reinsurance of industrial undertakings, airline and shipping companies and major industrial projects particularly give rise to extreme fluctuations. Reinsurance also accepts violent fluctuations through catastrophe. In several countries a major loss can cost both national and international reinsurance more than the profits obtained over the years from all lines of business.

**Example**

The cumulative impact of the loss from the terrorist attack on WTC and other places on 11th September 2001, which is estimated to exceed $70 billion - according to Standard & Poor, the final cost to insurers and reinsurers of the September 11 terror attacks will be around 24 billion Euros ($22 billion).

European companies would be responsible for around half the total bill, while US companies will take on 42 per cent. Of the Europeans, Germans are exposed to 15 per cent of the total, British to 13 per cent; Swiss to 11 per cent and Bermuda to 9 per cent. This event has impaired the capital of many insurers and reinsurers and also resulted in insolvencies.

World reinsurance capacity was able to provide for this loss, but cannot do it one more time. Taxing a reinsurer’s profit little will be ideal. Another important factor is that a reinsurer working in several markets mostly carries on his business from his head office and pays tax on profits from his worldwide operations in the country in which the head office is registered.

Whilst an insurer must conform to strict legal provisions to be able to open an agency or branch office in a foreign country it is an internationally accepted practice that a reinsurer can accept business from his head office without much formality. Thus taxation of a reinsurer’s profit must recognize reinsurance as a business which is a spread of risks worldwide. The practice of deducting tax at source as a percentage of the reinsurance premium ceded has become outdated and adds to the administration costs of the insurer.

One of the methods used by reinsurers to ascertain the price of the cover they grant is to indicate to the ceding insurer (reinsured) a net premium i.e. net of any costs. It is therefore up to the insurer to calculate the gross premium rate by adding his management expenses, acquisition cost, taxes and profit before quoting to his prospective insured. Differences in tax structure or in interpretation would lead to losing advantage to a competitor. This does no good to either the insurer or his reinsurer.

A reinsurer’s tax situation in his own country can be characterized by the following points. An enlightened attitude of the fiscal authorities who should show greater understanding for the nature of reinsurance and allow a reinsurer to constitute sufficient tax-free reserves against the possibility of fluctuations and catastrophe. The country and its fiscal authorities would profit from this as the reserves would enable the reinsurer to optimize his results and pay taxes regularly.
Tax regulations in different countries affect the business of reinsurance. In many countries, taxes are levied on direct or reinsurance premium and are known as premium tax. In India a Service Tax of 5% on direct premium is levied. This being different from tax on profits is treated like any other charge, e.g. fire brigade charge. Generally a reinsurer will be liable to income tax on profit in his country of incorporation based on his worldwide business.

However, if he has an office in a foreign country, profit arising out of income in that country is liable to local income tax. If the reinsurer operates worldwide he will be subject to local income tax in each of the countries where he is operating. In addition there will be tax on his overall profits by his country. In such cases of double taxation he may be able to obtain relief where double taxation agreements existing between his country’s government and government of the various countries where his offices are operating.

Interest on premium reserve released will be subject to deduction of income tax at source. Under reciprocal arrangements, items of reserve and interest may be waived. Some insurers may retain reserves but waive interest after making an adjustment in commission with a view to reducing administrative work.

Test Yourself 3

What is the percentage of service tax that is levied on direct premium in India?

I. 2%
II. 3%
III. 5%
IV. 7%

D. Exchange control regulation

The continuous need for reinsurance by any country shows that national self-sufficiency is not feasible in the long run. The fact that certain countries make special provisions to facilitate transfers for reinsurance premium in the face of a difficult foreign exchange position evidences the importance of reinsurance. India has efficiently conserved the use of foreign exchange for insurance and reinsurance.

In India the Foreign Exchange Management Act, 2000, governs the law and regulation relating to use of foreign exchange in respect of insurance and reinsurance transactions overseas. As per these laws no person resident in India can take any general or life insurance policy issued by an insurer outside India. Provided that the Reserve Bank may, for sufficient reasons, permit a person resident in India to take any life insurance policy issued by an insurer outside India.
Reinsurance arrangements of the GIC Re are reviewed annually and approved by Government of India. Permission is granted by Reserve Bank of India to GIC Re as an authorised dealer to arrange remittances of foreign exchange in respect of their reinsurance arrangements.

Insurers in India, both life and general, are required to submit their applications for remittances to the respective banks on specified form supported by documentary evidence in original to obtain permission to remit.

National Re and the licensed insurers are also permitted by Reserve Bank of India to maintain foreign currency accounts in foreign countries for facilitating general insurance business undertaken in foreign countries.

It is permitted to receive into foreign currency accounts, any payments due to them from non-residents and also make payments out of such accounts towards their liabilities, such as claims payable to non-residents, due to non-resident insurers on account of reinsurance arrangements and similar other payments.

Potential claims from overseas customers and vendors of Indian exporters for product liability and software errors and omissions are allowed to be settled without permission. Overseas Mediclaim is permitted to be settled without permission.

Some of the statements required to be submitted periodically to Reserve Bank of India are:
- quarterly statements of foreign currency accounts maintained abroad;
- quarterly statements of remittances made and remittances received;
- annual statements giving particulars of reinsurance business done with non-residents.

**Test Yourself 4**

In India, which of the following Acts governs the law and regulation relating to use of foreign exchange in respect of insurance and reinsurance transactions overseas?

I. Insurance Act 1938  
II. Companies Act 1956  
III. Foreign Exchange Management Act, 2000  
IV. Income Tax Act 1961
Summary

a) Reinsurance accounting is comprehensively connected with technical, financial, legal and underwriting aspects of reinsurance.

b) Reinsurance commission is an item paid by the reinsurer to the ceding insurer and is expressed as a percentage of the premium.

c) When a reinsurer receives business as an inward retrocession, the reinsurer will allow the ceding insurer overriding commission over and above any share of the original commission that he may pay.

d) The percentage of brokerage payable is applied to premiums written on gross, net or partial net basis and this must be clearly stipulated in the treaty agreement.

e) Profit commission is an additional percentage payable to a ceding insurer on profitable treaties in accordance with an agreed formula. It is therefore an incentive for ceding insurers to produce profitable business.

f) Tax regulations in different countries affect the business of reinsurance. In many countries taxes are levied on direct or reinsurance premium and are known as premium tax. In India a Service Tax of 5% on direct premium is levied.

g) In India the Foreign Exchange Management Act, 2000 governs the law and regulation relating to use of foreign exchange in respect of insurance and reinsurance transactions overseas.

h) Reinsurance arrangements of the GIC Re are reviewed annually and approved by the Government of India.

i) Permission is granted by the Reserve Bank of India to GIC Re as an authorised dealer to arrange remittances of foreign exchange in respect of their reinsurance arrangements.
Answers to Test Yourself

Answer 1

The correct answer is I.

For fire and accident proportional reinsurance, the accounting is rendered on an ‘Accounts Year’ basis.

Answer 2

The correct option is I.

In Flat rate of commission method, the commission payable is determined by applying the agreed percentage of commission to the premiums ceded less returns and cancellation.

Answer 3

The correct answer is III.

In India, a service tax of 5% is levied on direct premium.

Answer 4

The correct option is III.

In India, the Foreign Exchange Management Act, 2000 governs the law and regulation relating to use of foreign exchange in respect of insurance and reinsurance transactions overseas.

Self-Examination Questions

Question 1

Which of the following reinsurance commission method is used to calculate the rate of commission based on the loss ratio of the treaty during any one treaty year or during any one underwriting year?

I. Flat rate of commission
II. Sliding Scale of commission
III. Overriding commission
IV. Profit commission
Question 2

_________ is an additional percentage payable to a ceding insurer on profitable treaties in accordance with an agreed formula.

I. Overriding commission
II. Brokerage
III. Profit commission
IV. Flat rate commission

Question 3

When a reinsurer receives business as an inward retrocession, the reinsurer will allow the ceding insurer ___________ over and above any share of the original commission that he may pay.

I. Overriding commission
II. Brokerage
III. Profit commission
IV. Flat rate commission

Question 4

For which of the following types of business will the accounting be rendered on an ‘Underwriting Year’ basis?

I. Fire and accident proportional reinsurance
II. Fire and accident non proportional reinsurance
III. Marine proportional reinsurance
IV. Marine non proportional reinsurance

Question 5

Which of the following formulae is correct?

I. Loss ratio = (Earned premiums/Incurred losses) x100
II. Loss ratio = (Incurred losses/Incoming premiums) x100
III. Loss ratio = (Incurred losses/Outgoing premium reserve) x100
IV. Loss ratio = (Incurred losses/Earned premiums) x100
Answers to Self-Examination Questions

Answer 1

The correct option is II.

Sliding scale of commission method is used to calculate rate of commission based on the loss ratio of the treaty during any one treaty year or during any one underwriting year.

Answer 2

The correct option is III.

Profit commission is an additional percentage payable to a ceding insurer on profitable treaties in accordance with an agreed formula.

Answer 3

The correct option is I.

When a reinsurer receives business as an inward retrocession, the reinsurer will allow the ceding insurer overriding commission over and above any share of the original commission that he may pay.

Answer 4

The correct option is III.

For marine proportional reinsurance, the accounting is rendered on an ‘Underwriting Year’ basis.

Answer 5

The correct option is IV.

Loss ratio = (Incurred losses/Earned premiums) x100
In this chapter, we will discuss some of the special characteristics of the reinsurance market. We will also discuss in detail the functions and importance of Lloyds syndicate. We will also briefly look at some of the reinsurance pools that help the insurers.
A. Special characteristics

A reasonable and simple model of economic history would trace a development from universally Agrarian or farming based economies to the Industrial Age and eventually to the emergent Information Age where wealth is largely based on the application of knowledge. Insurance was the child of the Industrial Age as capital investment became exposed to risk to an extent to which subsistence farming never was.

The world is rapidly changing aided by electronic means and becoming more economically exposed to risk and financial volatility. The growth and establishment of financial risk management since the 1970s provides evidence of this trend. Some believe that financial risk management, as an industry in its own right, will swallow the traditional insurance markets. We see this happening across the world.

Following the series of catastrophes which occurred worldwide in the last two decades, the primary insurance sector needed additional capital to restore its ability to underwrite insurance business. This period witnessed a significant fall-out of conventional reinsurance capacity and, especially around the 1993 year-end there was a clear lack of capacity at any price.

Few insurers went to the equity markets for additional capital. Some started to buy financial reinsurance to support their underwriting exposures. One or two tapped the financial markets by means of the first reinsurance securitisations and derivatives. The capacity shortage was solved, however, by an influx of conventional capital that was used to establish new reinsurance companies, who in turn, supplied "capital" downstream in the form of reinsurance capacity.

When the insurance market needed capital it obtained it in the form of reinsurance. Over the subsequent years it has become clear, that this process although timely and rapid, was financially inefficient and the excess capacity was either bought out in the form of mergers and buy-backs or being used to expand by acquisition into new areas of underwriting activity.

1. Reinsurance Markets as Source of Capital

Often reinsurance companies are thought of as places to which to pass on risk. One working for a reinsurer thinks in terms of accepting a client's risks. Yet for many years the world's major reinsurers have been as much financiers, as recipients, of risk.

Although, technically a secondary market in insurance risk, reinsurers are often referred as "the bankers to the insurance industry" because of the way in which their services can operate more as a means of finance than as a simple transfer of risk.
Traditionally, underwriters at Lloyd’s supplied no permanent capital - each syndicate being recreated at the start of every year. Although satisfactorily lean and flexible from a capital efficiency point of view, this capital structure left the Syndicate vulnerable to rapid disappearance.

The conventional insurance insurer, however, has suffered from the opposite problem: The paid up capital is permanent and in a soft market will be either under-employed or badly employed.

As the insurance sector consolidated in most developed countries, the demand for annual, account specific, reinsurance has fallen. Meanwhile the volume of alternative risk financing programmes continues to increase and increasing numbers of insurers and reinsurers have announced that they are establishing Alternative Risk Transfer capabilities.

The successful among these companies will focus on corporate value and the achievement of corporate objectives rather than on the short term mitigation of risk. With the arrival of cheap capacity in the catastrophe reinsurance market by way of swaps and securitisation, providing capacity alone is no longer an option for any reinsurer.

The question to be asked is: “What is the Information Age's need for insurance? The world is destined to live somewhere exposed to earthquakes, hurricanes and flooding. All businesses will be highly exposed to every form of electronic assault and system failure and there will be perpetual litigation with any government, corporation or individual with which they come into contact with the intention of obtaining economic redress for all misfortunes.

Insurance will be required even more but will be served in non-conventional ways. Reinsurance will follow suit.

2. Redefining the Intermediaries

Due to continued consolidation in the primary insurance marketplace the world reinsurance market continues to shrink. This has compelled intermediaries to identify new ways and opportunities for business.

In some cases brokers have turned to marketing new or enhanced products and services such as:

a) catastrophe modeling,
b) dynamic financial analysis and
c) various e-commerce initiatives - to attract new clients.

Others are focusing on new lines of business while some continue to obtain new business the traditional way - by attracting producers and clients away from competitors.
Smaller independent reinsurance brokers find it to keep up financially, because ceding insurers have been demanding more-sophisticated services, such as catastrophe modeling, financial analysis and capital markets analysis.

In view of the changes in buying approach by insured’s backed by risk management professionals, by ceding insurers and with rates going up in the traditional reinsurance markets permanent shifts to ‘alternative risk transfer’ such as risk securitisation, swaps and cat bonds will continue to happen even as innovation takes place in traditional insurances such as multi-year multi-line covers.

In order to be relevant and continue to do business, reinsurance intermediaries are innovating and constantly upgrading their catastrophe and financial analysis software. They are moving into the world of e-commerce, although at different speeds and in different directions. In reinsurance, distribution is the key and using the Internet for distribution is found competitively efficient.

Until the world changes over to non-conventional ways entirely, the traditional insurance and reinsurance markets continue to serve. They have their own distinctive characteristics.

3. Composite Companies / Reinsurance subsidiaries of Direct Companies

Both U. K. and overseas companies with large direct portfolios have been involved with reinsurance for many years mainly on a reciprocal basis.

The reinsurance departments of many of these companies became very large and were involved in the handling of both inwards and outwards reinsurance. For a variety of reasons, a number of the companies have now established subsidiaries which solely transact reinsurance. Many of these subsidiaries can be found in London so that they can participate in the reinsurance market.

4. Specialist / Professional Reinsurers

There are a number of reinsurance companies which transact business on a world-wide basis but generally not in U.S.A. which has its own well-developed reinsurance market.

The majority of the professional reinsurance companies are owned by large composite companies or other industrial / commercial concerns but operate independently from the parent insurer.

These companies either transact business on a direct basis with ceding companies or accept business through brokers. Some territories such as Australia, South Africa and Canada have their own domestic professional reinsurers which may or may not be subsidiary companies of other reinsurers and which generally confine their activities to their local markets.
5. GIC Re

GIC Re with its strong financials, a well-balanced investment portfolio and technical expertise is setting up representative offices in targeted countries which would then go on to become their actual offices once it met all the local regulations of that country. It is envisaged that India would become the hub of reinsurance markets of the Asian and African regions.

GIC Re targets inward overseas reinsurance premium by creating a presence in the Middle East, the Soviet block and Far East as developed markets like Europe and the United States already had substantial presence of many large reinsurers.

GIC Re targets a book of 50:50 in domestic to overseas inward reinsurance business. It is within the Top 20 Reinsurers of the world with a A.M.Best rating of `A-` (Year: 2010).

Domestically, GIC Re receives up to 10 % obligatory cessions from non-life insurers in India and retrocede at least 50% of the obligatory cessions received to the ceding insurers after protecting the portfolio by suitable excess of loss covers. Such retrocession is at original terms plus an over-riding commission to GIC Re not exceeding 2.5%. The retrocession to each ceding insurer will be in proportion to his cessions to GIC Re.

6. Underwriting Agencies:

For those companies which do not wish to establish their own reinsurance organisation in London, the market offers unrivalled opportunities for them to participate in international reinsurance business through membership of one of a number of underwriting agencies.

The underwriting agencies are often run by brokers, but not always so, who write selected business for clients in the London market from their own and from other brokers’ books of business.

7. Captive Companies:

Many large manufacturing or trading organisations have established insurance subsidiary companies to look after some of the parent organisation’s insurance needs. However, a number of captive companies have broadened their sphere of activities to the writing of open market insurance or reinsurance business for tax reasons. The captive companies are very often established in “tax havens” to avoid tax-liability in the country of incorporation of the parent organization.

There are over 4000 captive insurers operating worldwide with nearly 35 % of them located in Bermudas. Guernsey, Cayman Islands, Bahamas, Hawaii, Isle of Man, Barbados, Luxembourg, Dublin, Vermont, Singapore are the other locations.
Captives are of many different types. Three most common and notable one are:

a) fully owned,

b) rent-a-captive and

c) protected cell.

Their business requires substantial fronting and reinsurance support and is therefore a major reinsurance ceding market.

8. New Geographies:

World reinsurers have been extending to reach closer to the markets that they serve. World`s financial centres saw in this aspiration an opportunity for themselves. Bahrain, Dubai, Hong Kong, Shanghai, Singapore, Bermudas sought to reach out by encouraging offshore reinsurance with operational and tax freedoms. Latin America is another geography where year 2010 notes new and growing activity in reinsurance.

Of these the ones to make a mark are Bermuda and Singapore. Labuan near Kuala Lumpur is emerging as a reinsurance centre for Far East.

a) Bermuda

Since the Eighties, Bermuda emerged as the leader in the development and regulation of captive insurers, but in the first decade of the 21st Century it is the home to more than 30 major international insurance and reinsurance companies.

This market has grown up in 20 years in response to market needs for greater world wide access to property and casualty insurance and reinsurance. These large insurers and reinsurers are regulated in Bermuda under a separate and distinct set of requirements with a regulatory framework designed to meet international regulatory standards and be commensurate with their size and market scope.

With headquarters and operations in Bermuda and with operating subsidiaries in the United States and Europe these insurers and reinsurers derive business income from nearly 200 countries around the world. They write, as of year 2010, 16% of world`s reinsurance premiums.

b) Singapore

A conscious approach to develop Singapore as a regional centre for reinsurance was undertaken. Distinct domestic and offshore funds are established.

Since the Eighties, Singapore encouraged leading reinsurers set up business in the city-state. By year 2010 Singapore is home to 20 active leading reinsurers of the world.
c) Labuan, Malaysia

This is a reinsurance centre that holds promise to emerge as a key regional centre for Asia-Pacific.

d) Shanghai

Efforts continue to be undertaken to develop this city as an international reinsurance centre leveraging the volumes of ceded reinsurance premium from China.

e) Middle East and North Africa (MENA)

Although the MENA region continues to have a very low contribution to world premium nevertheless, many reinsurers continue to focus on that region due to high growth potential compared to developed markets attributed to its highly untapped market, rising awareness and government initiatives to promote the insurance sector.

Reinsurers are also attracted to that region as a way to diversify their portfolio into relatively low-catastrophe exposed territories. This has been evident by the establishment of several branches of major reinsurers.

f) Brazil

Year 2010 witnessed an effort to raise Rio de Janeiro’s profile and secure its traditional position as the reinsurance centre of Brazil.

There is a proposal to build a “Reinsurance Centre/Marketplace” in Rio de Janeiro - much like the London Underwriting Centre - to bring together the main market players in one location.

As a future project it highlights the market awareness for the need to establish a defined structure and infrastructure for this emerging business sector in Brazil.

Test Yourself 5

Who among the following are generally referred to as ‘bankers to the insurance industry’?

I. Lloyd’s of London
II. WTO
III. Reinsurers
IV. Captive companies
B. Lloyd’s syndicates

1. Lloyd’s syndicate

Lloyd’s Syndicates are arranged on an entirely different basis as compared to insurance and reinsurance companies. Each member of a Syndicate has unlimited liability and the Syndicates are supervised principally by the Committee of Lloyd’s rather than the Department of Trade.

Lloyd’s is a market and not an insurer. The Underwriting Room at Lloyd’s is a unique place where Lloyd’s brokers negotiate specific insurance programmes, originating from all over the world, with expert underwriters.

Approximately two thirds of Lloyd’s business emanates from overseas, most notably from the United States. A mix of major investment institutions, international insurance companies and specialist insurance investors provide the capital that backs Lloyd’s. As a market, where over 150 business entities both compete and co-operate, Lloyd’s is able to combine a wealth of choice, knowledge, experience and expertise all under one roof.

Lloyd’s Syndicates have been involved in writing insurance and reinsurance business for centuries, although the development of the reinsurance side increased in volume terms only since the Second World War. Approximately 50% of reinsurance business written in the United Kingdom is placed in Lloyd’s.

2. Lloyd’s Marine Insurance

Lloyd’s was founded on marine insurance and it is unquestionably the world’s single most important market for this insurance with over 13% of worldwide business being placed at Lloyd’s. From yachts to super tankers and their cargoes, from offshore supply boats to huge drilling rigs, the range and diversity of risks Lloyd’s underwriters insure is vast.

Lloyd’s is also renowned for reinsuring the liability risks of ocean going ships throughout the world. Non-marine underwriters at Lloyd’s can insure and reinsure a variety of different risks. These include guarantees and surety. Exceptional coverages are continued to be placed at Lloyd’s.

3. Lloyd’s Aviation underwriters

Lloyd’s aviation underwriters are recognised specialists in insuring the physical damage and liability risks of world aviation business and their related war risks. Over 25% of the world’s aviation business is placed with Lloyd’s underwriters. Lloyd’s has led the way in the aviation market since 1911 when underwriters issued the first standard aircraft insurance. Lloyd’s aviation underwriters have the knowledge and ability to insure risks such as product liability for aircraft manufacturers, airport risks, business aircraft, air cargo, satellites and personal insurances for both passengers and crew.
4. **Lloyd’s Motor Underwriter’s**

Lloyd’s motor underwriters are the largest insurers of private motor vehicles in the UK and one of the most recognised throughout the world. One out of six cars in the UK is insured at Lloyd’s. Retaining this premier position takes a combination of optimum service and innovation.

5. **Lloyd’s Underwriters**

Lloyd’s underwriters make it possible to insure unusual and high value vehicles as well as more standardised risks. Private cars and motorcycles form a part of the motor underwriters’ business: They also insure commercial vehicles and a spread of motor trade risks. Much of Lloyd’s success can be attributed to the strength of its relationships between brokers, underwriters, investors and clients. Within the market, trust is the vital link between all of those involved in the decision making process.

Lloyd’s underwriters write business solely through registered Lloyd’s Brokers. They therefore do not have the same philosophy as professional reinsurance companies as their contact with the original ceding insurer is very limited. The underwriters must have confidence in the broker who brings the risk to the market. By the same token the underwriter relies on the Lloyd’s broker to collect the client’s premium.

Lloyd’s underwriters and brokers must do more than prove their talents within Lloyd’s. They must also attain professional qualifications and comply with the most stringent solvency norms and rigorous codes of practice enforced by both the professional bodies and the Regulator. Such regulation seeks to protect and promote the best interests of a Lloyd’s customer.

6. **Adoption of new technology**

Improving the way business is transacted at Lloyd’s remains an important and on-going process. New technology has replaced and is replacing document based transactions to be transacted electronically through Internet. Weekly settlements are giving way to settlements through Electronic Data Interchange (EDI). Accreditation of brokers requires capability to transact with Lloyd’s through Internet on real time basis.

7. **Claims Payment**

Considerable emphasis is placed on claims payment and the system is automated to allow greater speed and efficiency when agreeing and settling claims. In most cases, the Lloyd’s broker need simply notify Lloyd’s Claims Office and the leading underwriter who sets the policy terms and conditions.

Once agreed, Lloyd’s central accounting system ensures the claim is settled directly to the broker’s account and debited from the relevant underwriting syndicates.
8. Lloyd’s China

Lloyd's China is established since 2007 through a insurer, Lloyd's Reinsurance Insurer (China) Limited (Lloyd’s China), to provide reinsurance capacity for the fast growing Chinese insurance market.

   a) Lloyd's has a long relationship with the Chinese insurance market and has supported Chinese insurers by providing offshore reinsurance capacity in areas such as marine and aviation for over three decades before establishing in China.

   b) Fitch Ratings, Standard & Poor’s (S&P) and A.M. Best have all issued the financial strength rating of 'A' for LRCCL.

The five governing principles for Lloyd’s for doing business in China are:

   a) Entering China represents a long term strategic investment for Lloyd's.
   b) Lloyd’s China will transfer underwriting expertise and technology into China.
   c) Lloyd’s China will underwrite for profit not market share.
   d) Lloyd’s China will provide full access to the Lloyd's Chain of Security to all policyholders.
   e) Lloyd’s China will strive to develop China's insurance broker market.

9. Lloyd’s of London

Lloyd’s of London are established in a wide range of geographies and provide facilitation for Syndicates to operate in these places just as they do in London or simply operate as a insurer as they do in China. Detailed information on Lloyd’s of London presence worldwide is available at:

   “http://www.lloyds.com/Lloyds_Worldwide/Lloyds_international_offices/”

As of 2010, New York plans to setting up an exchange, based on the Lloyd’s of London model but with all the technological advances that Lloyd’s has struggled with over 20 years since 1990.

The exchange is mandated to have advanced technology platform, standardised forms, contract certainty and expeditious claims handling. There is a substantial business that Lloyd’s receives from US and may be affected.

Test Yourself 1

_________ are the largest insurers of private motor vehicles in the UK.
I. UK motor’s underwriters
II. Lloyd’s motor underwriters
III. LRCCL
IV. GIC Re
C. Pools

Local pools are established to minimise the total reinsurance necessary outside a local market. The pool operations are generally limited in scope in that they are intended to fill a specific need.

Example

In the aviation business, the capacities required and the volatile nature of loss experience may preclude the placement of such business with one reinsurer.

Similarly, in other classes the nature of the business may be too undesirable or hazardous for the market to handle in a normal competitive way, e.g. earthquakes. Normally, a specialist underwriter or underwriters from one of the leading reinsurance organisations underwrite on behalf of the members participating in the pool.

1. F.A.I.R Pool:

The Federation of Afro-Asian Insurers & Reinsurers (F.A.I.R.) set up the F.A.I.R Non-Life Reinsurance Pool with effect from 1.1.1974. The principal object of the Pool is to accept reinsurance and retrocession business from the African and Asian markets.

Millî Reasürans T.A.Ş. Istanbul is entrusted with the management of the F.A.I.R Reinsurance Pool since its establishment. All the business ceded to the Pool is retroceded back to the members with an almost 100 % reciprocity. But considerably high ceded premiums, longstanding profitability and decent cash-flow can form basis for a more than 100 % reciprocity or vice-versa. The Retrocession shares to be allocated to the members are fixed every year.

F.A.I.R operates an Aviation Pool and a Oil & Energy Insurance Syndicate, which has been officially registered in the Kingdom of Bahrain as an independent legal entity. Its principal objective is to underwrite oil and energy business from FAIR members.

Internationally specialist pools operate to assist in:

a) terrorism,
b) war,
c) nuclear risks.

These pools provide a support which makes possible to provide insurance for these perils. Generally, there are other pools made accessible through intermediaries and underwriting agencies. The ceding insurer subscribing to these pools has little or no control over the constitution of the business and the underwriting standards applicable. Such pools may be attractive for smaller companies with little or no reinsurance expertise of their own.
2. International Bodies:

a) UNCTAD

In a number of less developed territories and socialist states, reinsurance companies were formed particularly in the 1920’s to give financial support to weak embryonic direct companies or to save on valuable foreign exchange.

In Chile a reinsurance monopoly was formed in 1972 and the law was rescinded in 1981 to allow a local market to operate there.

After the Second World War, the United Nations Conference on Trade and Development (UNCTAD) advised a number of the developing countries in Africa and the Far East to reduce their reliance on foreign insurers by setting up state corporations. e.g. Kenya, Nigeria, Pakistan.

State reinsurance organisations have emerged principally as a means of saving on valuable foreign exchange rather than transacting reinsurance for its own sake. These state owned reinsurers took the role of controlling and directing the activities of their local market.

Arrangements usually take the form of compulsory session of the direct insurer`s individual policies. Generally, the state owned reinsurer will cede back to the local insurance market a certain percentage of the total portfolio before retroceding any desired portion out to foreign markets or obtaining protection from those markets for the retained account.

In consequence of the efforts of UNCTAD the Asian Reinsurance Corporation, Bangkok, and African Reinsurance Corporation, Lagos and Casablanca, operate as regional pools supporting the countries in their respective regions.

b) WTO

The World Trade Organisation (WTO) has been actively promoting free trade in services. Free trade and globalising trade in services is an important objective of this world body with a view to promoting expanding market opportunities in the long term. Its detractors work on the reverse theory of insulated and protected markets.

India is a signatory to the WTO. India has put through, over the years, the global requirements for trade in services eventually enacting the IRDA Bill in December 1999.

China is a member of the WTO and privatized its market. With increasing worldwide membership, especially from insulated markets willing to open up, there is increasing opportunity for trade in reinsurance service.
c) World Bank

World Bank as a concerned global citizen with the objective of alleviation of poverty, assists in the tasks of protecting the low middle class and poor people through assisting their respective governments in setting up and operating catastrophe insurance programmes.

Following the severe earthquake in Turkey in 1999 the World Bank assisted the government there to set up a pool to insure the risk of earthquake in Turkey and backed it by reinsurance support. This pool insures the loans provided to reconstruct houses and public infrastructure.

As a member of the World Bank Group, Multilateral Investment Guarantee Agency (MIGA) promotes foreign direct investment (FDI) into developing countries to help support economic growth, reduce poverty, and improve people's lives. It does this by providing political risk insurance (guarantees) to the private sector.

Concerns about investment environments and perceptions of political risk often inhibit foreign direct investment, with the majority of flows going to just a handful of countries and leaving the world’s poorest economies largely ignored. MIGA addresses these concerns by providing political risk insurance for foreign investments in developing countries and dispute resolution services for guaranteed investments to prevent disruptions to developmentally beneficial projects. (MIGA)

Test Yourself 2

F.A. I. R. Stands for .

I. Federation of Afro-Asian Insurer’s and Reinsurers
II. Federation of Asian-American Insurer’s and Reinsurers
III. Federation of Afro-Australian Insurer’s and Reinsurers
IV. Federation of Asian-Australian Insurer’s and Reinsurers
Summary

a) Reinsurers are often referred as "the bankers to the insurance industry" because of the way in which their services can operate more as a means of finance than as a simple transfer of risk.

b) GIC Re targets inward overseas reinsurance premium by creating a presence in the Middle East, the Soviet block and Far East as developed markets like Europe and the United States already had substantial presence of many large reinsurers.

c) Lloyd’s is a market and not an insurer. Each member of a Syndicate has unlimited liability and the Syndicates are supervised principally by the Committee of Lloyd’s rather than the Department of Trade.

d) Lloyd’s China is established since 2007 through a insurer, Lloyd's Reinsurance Insurer (China) Limited (Lloyd’s China), to provide reinsurance capacity for the fast growing Chinese insurance market.

e) Lloyd’s of London are established in a wide range of geographies and provide facilitation for Syndicates to operate in these places just as they do in London or simply operate as an insurer as they do in China.

Answers to Test Yourself

Answer 1
The correct answer is III.
Reinsurers are generally referred to as ‘bankers to the insurance industry’.

Answer 2
The correct option is II.
Lloyd’s motor underwriters are the largest insurers of private motor vehicles in the UK.

Answer 3
The correct answer is I.
F.A. I. R. Stands for Federation of Afro-Asian Insurers and Reinsurers

Self-Examination Questions

Question 1
What is the principal objective of F.A.I.R pool?
I. To accept insurance and reinsurance business from the African and American markets.
II. To accept reinsurance and retrocession business from the African and Asian markets.
III. To accept insurance and retrocession business from the Australian and Asian markets.
IV. To accept reinsurance and retrocession business from the Asian and Chinese markets.

Question 2
Which of the following bodies promotes foreign direct investment (FDI) to developing countries to help support economic growth, reduce poverty and improve people's lives by providing political risk insurance (guarantees) to the private sector?
I. WTO
II. World bank
III. MIGA
IV. UNCTAD

Question 3
Who is entrusted with the management of the F.A.I.R pool?
I. Hannover Re, UK
II. SCOR Global life, Ireland
III. ACE tempest Re international, Zurich
IV. Millî Reasürans T.A.Ş., Istanbul
CHAPTER 10

PRACTICE QUESTIONS AND ANSWERS

Question 4

When was Lloyd's China established?
I. 2001
II. 2004
III. 2007
IV. 2010

Question 5

Which of the following is incorrect with respect to Lloyd's Syndicate?
I. Each member of Lloyd's Syndicate has unlimited liability.
II. Syndicates are supervised principally by the Committee of Lloyd's
III. Syndicates are supervised principally by the Department of Trade.
IV. Lloyd's is a market and not an insurer

Answers to Self-Examination Questions

Answer 1

The correct option is II.

The principal objective of the F.A.I.R pool is to accept reinsurance and retrocession business from the African and Asian markets.

Answer 2

The correct option is III.

MIGA promotes foreign direct investment (FDI) into developing countries to help support economic growth, reduce poverty and improve people's lives by providing political risk insurance (guarantees) to the private sector.

Answer 3

The correct option is IV.

Millî Reasürans T.A.Ş., Istanbul is entrusted with the management of the F.A.I.R pool.

Answer 4

The correct option is III.

Lloyd's China was established in the year 2007.

Answer 5

The correct option is III.

Lloyd's Syndicates are principally supervised by the Committee of Lloyd's.
CHAPTER 11

REINSURANCE FINANCIAL SECURITY

Chapter Introduction

In this chapter, we will look at the significance of credit rating and its importance for managing the reinsurer’s security. We will also briefly discuss the different credit rating agencies that operate in the insurance market.

Learning Outcomes

A. Managing reinsurer security
B. Establishing criteria for security evaluation
C. Financial strength rating
A. Managing Reinsurer’s security

1. Importance of credit rating:

When reinsurances are ceded and accepted it is important to establish the credit rating of the reinsurer with reference to his:
   a) business continuity,
   b) ability to settle, and
   c) his country’s foreign exchange position.

Where this was previously a matter for individual internal evaluation by insurers and brokers based upon assessment of balance sheets and historical technical results of each reinsurance transaction, such evaluation has now been augmented by agencies performing credit rating.

This credit rating is used by insurers and reinsurers to inform the markets of their financial strengths.

Definition

A credit rating is a current opinion of the financial strengths and security characteristics of an insurer or reinsurer with respect to his ability to pay under his insurance policies and contracts in accordance with their terms.

This opinion is not specific to any particular policy or contract, nor does it address the suitability of a particular policy or contract for a specific purpose or purchaser.

Furthermore, the opinion does not take into account:
   a) deductibles,
   b) surrender or cancellation penalties,
   c) timeliness of payment,
   d) nor the likelihood of the use of a defense such as fraud to deny claims.

For insurers and reinsurers with cross-border or multinational operations, including those conducted by subsidiaries or branch offices, the ratings do not take into account the potential that may exist for foreign exchange restrictions to prevent financial obligations from being met.

Credit ratings are based on information furnished by rated insurer or reinsurers or obtained by the rating agency from other sources it considers reliable. No audit is performed in connection with any rating and an agency may on occasion rely on unaudited financial information. Ratings may be changed, suspended, or withdrawn as a result of changes in, or unavailability of required information or for other reasons.
Credit ratings do not refer to an insurer’s or reinsurer’s ability to meet non-policy (i.e. debt) obligations. Assignment of ratings to debt issued by insurers or to debt issues that are fully or partially supported by insurance policies, contracts, or guarantees is a separate process from the determination of an insurer’s or reinsurer’s credit rating and follows rating procedures consistent with credit rating definitions and practices.

Finally, credit ratings are not a recommendation to purchase or discontinue any policy or contract issued by an insurer or reinsurer or to buy, hold or sell any security issued by an insurer. A rating is not a guarantee of an insurer's financial strength or security. In India credit agencies are required to obtain license from the Securities and Exchange Board of India (SEBI) if engaged in the business of rating of securities offered by way of public or rights issue.

2. Managing Reinsurer Security

Ratings are recognized worldwide as the benchmark for assessing insurers' financial strength. Ratings done by agencies are expected to reflect an in-depth knowledge of the insurance and reinsurance industry developed by an agency over a period of time. Insurance and reinsurance professionals develop confidence in use and understanding of an agency’s rating and rely upon it in their decisions.

Global rating coverage of the insurance and reinsurance industry includes:

a) Life,
b) Nonlife (including auto and homeowner carriers),
c) Title,
d) Health care (including third party administrators),
e) Alternative risk vehicles (e.g., captives and pools),
f) Lloyd's (including comprehensive analysis on its managing agents) and
g) Reinsurance.

Credit rating goes beyond individual companies and assesses a country’s overall strength for reliability, return and repayment of principal and interest from an investor’s viewpoint. Such rating is known as sovereign rating.

It is an established convention that the individual insurer rating however good is subordinate to its country’s rating. Hence a well rated insurer in a country would be poorly rated if the country’s sovereign rating is poor.

The analytical process in evaluation by an agency incorporates a host of quantitative and qualitative measures, including comparisons to peers and industry standards as well as assessments of an insurer’s and reinsurer’s operating plans, philosophy and management.

Rating methodology is continually fine-tuned and adapted by agencies to reflect ever-changing industry, regulatory and legal developments, as well as changes in underlying business fundamentals.
Given the short-term nature and dynamics of the credit rating process an insurer or a reinsurer is required to decide his approach to using the credit rating information in managing the security of his assets and finances from his operations. It is possible for an insurer or a reinsurer to override the lower sovereign rating and deal with a market on merits of the individual credit rating. Such a decision would be the outcome of personal experience in dealing with the market.

Dealing with reinsurance would expose an insurer or a reinsurer to credit risks and potential strains on liquidity. He would need to manage his reinsurance security risk diligently. Although he may deal with well rated insurers or reinsurers it is likely that credit risk associated with reinsurance recoverables is higher than industry standard. It is possible that he is offsetting this higher risk against limited risk in respect of other items of assets and investments on his balance sheet. Managing reinsurance security along these lines would leverage profits from risk taking.

**Test Yourself 1**

Which of the following statements is incorrect with respect to credit rating?

I. Credit ratings do not refer to an insurer`s or reinsurer`s ability to meet debt obligations.

II. Credit ratings are a recommendation to purchase or discontinue any policy or contract issued by an insurer or reinsurer or to buy, hold or sell any security issued by an insurer.

III. A credit rating is not a guarantee of an insurer's financial strength or security.

IV. Credit ratings are based on information furnished by rated insurer or reinsurers or obtained by the rating agency from other sources it considers reliable.

**B. Establishing criteria for security evaluation**

3. **Selecting Reinsurers:**

Traditionally reinsurers were chosen on the strength of their professional reputation and for their technical support services. This led to the emergence and growth of giant professional reinsurers whose priority is to deal directly without the use of an intermediary.

Otherwise, largely, reinsurers were chosen by broker`s reference in his efforts to place covers. The broker presented his internal evaluation of the financial and reinsurance performance to the ceding insurer or reinsurer in facilitating an informed decision for selecting a reinsurer. With the emergence of credit rating even Regulators find it useful as a tool to limit the credit risk of the whole market. In India IRDA has stipulated the use of reinsurers with rating not less than BBB.
This can change with relative new financial strengths of the Indian market. In selecting the reinsurer this norm must be complied.

An insurer or reinsurer in any market can define a rating level, higher than stipulated by the Regulator if there be such stipulation, as an internal guideline to transact for reinsurance.

This would be the first step in selecting a reinsurer. Other issues pertaining to the reinsurance performance in the class and arrangement would be examined following this initial assessment.


The rating agencies assess the capacity of insurers and reinsurers to settle claims. This provides the policyholders with a reliable opinion about the soundness and capacity of insurers or reinsurers as is the case with bank deposits and other debt instruments.

Each credit agency brings its own experience and knowledge of companies, use its own benchmarks and models for assessment and the expertise available within its team of raters.

The methodology used involves an examination of the insurer’s investment portfolio, investment goals, asset quality and liquidity traits, all of which will enable the rater to come to a conclusion about the risk profile of the portfolio. The rating process will not be specific to any specific policy or contract.

The rating process throws light on the insurance companies’ pricing strategies, hedging operations, asset-liability management and exposure to reinsurance.

The key areas that a Credit Rating Agency looks at include:

a) The regulatory framework
b) Industry analysis
c) Business and product profile
d) The selling and distribution system
e) The quality of the management of the insurer
f) Flexibility in product pricing
g) Underwriting (estimates of amounts necessary to cover costs)
h) International operations of the foreign partners
i) The investment and loan portfolio-liquidity and loan profile
j) The extent of reinsurance taken in each line of business and
k) The leverage (the ratio of net premiums written to policy holders' surplus).

Insurers welcome their getting rated as rating will help them to market their products better. Insurers who are new in a market find rating to help potential customers in their choice of using a new insurer.
CHAPTER 11

FINANCIAL STRENGTH RATINGS

Test Yourself 2

In India IRDA has stipulated on the use of reinsurers with ratings below certain limit. As per IRDA these ratings cannot be below ________

I. AAA
II. AAB
III. BBB
IV. CCC

C. Financial Strength ratings

3. Financial Strength Ratings:

The financial strengths are referred to differently as `very strong` `strong` to `poor`.

Credit rating agencies continuously monitor the rating of having assigned it once to an insurer and continue to update the markets by disseminating information regarding newly assigned ratings and changes in earlier rating promptly through press releases and websites.

The agencies carry out periodic reviews of all published ratings and if the client does not co-operate the credit rating agency will still carry out the review on the basis of the best available information.

Each credit rating agency informs the general public relating to the rationale of their ratings that includes an analysis of the various factors justifying a favourable assessment as well as factors constituting a risk.

Credit rating agencies, in all cases, follow an established rating process. They have professional rating committees, comprising members who are adequately qualified and knowledgeable to assign a rating. All rating decisions, including decision to change a rating, are taken by the rating committee. CreditWatch highlights the potential direction of a rating, focusing on identifiable events and short-term trends that cause ratings to be placed under special surveillance.

These events may include:
   a) mergers,
   b) recapitalizations,
   c) voter referenda,
   d) regulatory actions or
e) anticipated operating developments.

Ratings are put on CreditWatch when such an event or a deviation from an expected trend occurs and additional information is needed to evaluate the rating.
CreditWatch is not intended to include all ratings under review, and rating changes may occur without the ratings having first appeared on CreditWatch. The "positive" designation means that a rating may be raised; "negative" means that a rating may be lowered; "developing" means that a rating may be raised, lowered, or affirmed.

National Scale Ratings, denoted with a prefix such as ‘mx’ (Mexico) or ‘ra’ (Argentina), assess an insurer’s or reinsurer`s financial strength relative to other insurers and reinsurers in his home market.

4. Major Rating Agencies

The major and popular names of credit rating agencies worldwide are:
   a) Standard and Poor
   b) A.M. Best
   c) Moody’s
   d) Duff & Phelps

In India, the following credit rating agencies are known to investing public.
   a) Credit Analysis & Research Limited (CARE)
   b) Credit Rating Information Services of India Limited (CRISIL)
   c) Duff & Phelps Credit Rating India Private Ltd. (DCR India)
   d) Investment Information and Credit Rating Agency of India (ICRA).

It is of interest to note that the National Association of Insurance Commissioners in USA (NAIC), an insurance regulatory body, has developed its own rating system known as Insurance Regulatory Information System (IRIS) to provide for an integrated approach to monitoring and analyzing the financial health of insurers and reinsurers.

In India, the IRDA monitors solvency margin of insurers and reinsurers as a key measure of their financial health and business continuity.

Test Yourself 3

In a credit rating agency, who among the following can take the decision regarding change of rating of an insurer?

I. Credit Analyst
II. Professional rating committee
III. CEO
IV. Members of rating agency
Summary

a) Credit rating is used by insurers and reinsurers to inform the markets of their financial strengths.

b) Credit ratings are based on information furnished by rated insurer or reinsurers or obtained by the rating agency from other sources it considers reliable.

c) Credit ratings do not refer to an insurer’s or reinsurer’s ability to meet non-policy (i.e. debt) obligations.

d) In India, credit rating agencies are required to obtain licence from the Securities and Exchange Board of India if engaged in the business of rating of securities offered by way of public or rights issue.

e) Each credit rating agency brings its own experience and knowledge of companies, uses its own benchmarks and models for assessment and utilizes the expertise available within its team of raters.

f) The agencies carry out periodic reviews of all published ratings, and if the client does not co-operate, the credit rating agency will still carry out the review on the basis of the best available information.

g) National Scale Ratings, denoted with a prefix such as ‘mx’ (Mexico) or ‘ra’ (Argentina), assesses an insurer’s or reinsurer’s financial strength relative to other insurers and reinsurers in its home market.

h) In India, the IRDA monitors the solvency margin of insurers and reinsurers as a key measure of their financial health and business continuity.
Answers to Test Yourself

Answer 1

The correct answer is II.

Credit ratings are not a recommendation to purchase or discontinue any policy or contract issued by an insurer or reinsurer or to buy, hold or sell any security issued by an insurer.

Answer 2

The correct option is III.

A person has no direct insurable interest in his friend.

Answer 3

The correct answer is II.

In a credit rating agency, the professional rating committee can take the decision regarding change of rating of an insurer.

Self-Examination Questions

Question 1

If an insurance company is put under ‘Credit Watch’, and is given a ‘positive’ designation, then what would this mean for that insurance company?

I. Rating of Insurance Company can be raised
II. Rating of Insurance Company can be lowered
III. Rating of Insurance Company can be affirmed
IV. Rating of Insurance Company can either be lowered or affirmed

Question 2

Which designation will be provided to the insurance company if credit rating agency feels that rating of the insurer may be raised, lowered, or affirmed?

I. Positive
II. Negative
III. Developing
IV. Emergent
CHAPTER 11

PRACTICE QUESTIONS AND ANSWERS

Question 3

Which of the following is not a credit rating agency?

I. Standard and Poor
II. A.M. Best
III. IRDA
IV. Duff & Phelps

Question 4

In India, who monitors the solvency margin of insurers and reinsurers as a key measure of their financial health and business continuity?

I. Standard and Poor
II. A.M. Best
III. IRDA
IV. Duff & Phelps

Question 5

Who developed a rating system known as the Insurance Regulatory Information System (IRIS)?

I. Standard and Poor
II. NAIC
III. A.M. Best
IV. Duff & Phelps

Answers to Self-Examination Questions

Answer 1

The correct option is I.

If an insurance company is put under ‘Credit Watch’ and is given a ‘positive’ designation, then this means that the rating of the insurance company can be raised.

Answer 2

The correct option is III.

An insurance company is designated as “developing” if the credit rating agency feels that the rating of the insurer may be raised, lowered, or affirmed.
Answer 3

The correct option is III.

IRDA is a regulatory body, and not a credit rating agency.

Answer 4

The correct option is III.

In India, the IRDA monitors the solvency margin of insurers and reinsurers as a key measure of their financial health and business continuity.

Answer 5

The correct option is II.

NAIC has developed a rating system known as the Insurance Regulatory Information System (IRIS).
CHAPTER 12

ALTERNATIVES TO TRADITIONAL REINSURANCE

Chapter Introduction

This chapter discusses the alternative risk transfer mechanism that is available to insurance companies. Concepts of derivative security and securitization have also been discussed briefly on how they can be used as a hedging tool.

Learning Outcomes

A. Alternative risk transfer  
B. Derivative security and Securitisation  
C. New markets
A. Alternative risk transfer

1. Alternative risk transfer

The alternative risk financing market is a huge one. This is not a replacement in whole or part of the regular insurance market. It is the consequence of rethinking the role of insurance in financing loss due to risk.

It relegates insurance to just one of a complete range of risk financing techniques and is transforming the insurance industry to deal with hitherto uninsurable business risks such as fluctuations in interest rates, rates in foreign exchange, temperature fluctuations and commodity prices.

The new forms are financial hybrids and their intention is to cover a customized combination of:

a) Event risks (say, a natural disaster) and
b) Financial risk (say, commodity price fluctuation)

A simple model of such a cover is a settlement of a loss caused by an earthquake contingent on the favourable or unfavourable fluctuation in the customer`s product price.

Alternative transfer includes alternative types of risk carriers such as:

a) Self insurance
b) Risk Retention Groups
c) Pools
d) Captives

Self insurance, Risk Retention Groups and Pool are largely US based concepts for alternative carriers. These extend to markets having capabilities for advanced financial management. Captives on the other hand are a global phenomenon dating back to 1950s.

a) **Self Insurance**: Self insurance can be a retained level of deductible. This can be through a mutual group or pool within an association or body to share retained risk. This can also be a fund constituted to address a loss if it were to occur. The latter two approaches to self insurance often do not find legal and / or regulatory sanction in most countries.

b) **Risk Retention Group**: Risk Retention Group originated in the US with the passing of Liability Risk Retention Act, 1981. A risk-retention group (RRG) is a corporation owned and operated by insurance companies, that band together as self-insurers and forms an organization that is chartered and licensed as an insurer in at least one state of US to handle liability insurance. In the US it addresses gaps in liability cover for its members such as for medical malpractice.
c) **Pool:** A group of insurance companies that pools assets, enabling them to provide an amount of insurance substantially more than can be provided by individual companies to ensure large risks such as nuclear power stations are protected.

**Example**

In India, the Market Terrorism Pool is a good example of alternative carrier.

In the UK, Pool Re is a good example of an alternative carrier for risk of terrorism, and covers all risks, including nuclear and biological contamination, aircraft impact and flooding, if caused by terrorist attacks.

The U.K. Treasury is the reinsurer of last resort for Pool Re, protecting it in the event that Pool Re exhausts its financial resources following claims payments.

d) **Captive:** Captive is an insurer created and wholly owned by its sponsors to provide a facility to aggregate, insure and reinsure only their risks. This approach does find legal and / or regulatory sanction in most countries.

2. **Features of alternative risk transfer products:**

All alternative risk transfer products have one or more of the following features:

a) custom-tailored to the unique needs of the client;

b) coverage provided on a multiyear basis;

c) coverage applicable to multiple lines; or

d) payoff can be triggered by multiple factors, rather than a single event

3. **Interest in alternative risk solutions:**

The movement to alternative risk solutions started with corporate customers who have developed sophistication in using capital markets and whose:

a) need was to maximize return on shareholder funds

b) understanding and grasp of risk financing techniques as a corporate strategy

c) developed to the point that insurance is just one part of it

d) evaluation of total cost of risk financing required eliminating the expenses

e) and profits of an insurer

f) uninsurable risks could be included with the alternative risk techniques

g) examination of insurance security revealed little logic in buying insurance

h) from an insurer with much smaller capitalization than their own.
Interest in alternative markets is in part a function of the cost of traditional insurance and reinsurance. Property and liability insurance premiums are highly cyclical. Typically, several years of declining premiums and flexible underwriting is followed by a few years of rising premiums and strict underwriting.

When premiums are high and the traditional market hardens, alternative market products become relatively attractive to buyers of insurance as substitutes for traditional insurance products.

### 4. Techniques of Risk management:

Techniques of risk management are pursued in three ways:

- **a) Risk Transfer,**
- **b) Risk Retention Financing; and**
- **c) Asset Management.**

The relative importance of the three approaches as above constantly fluctuates depending on external influences upon the corporate’s finances such as:

- their growth,
- their financing behaviour,
- the financial markets and
- the notorious cycles of hard and soft markets of reinsurance and insurance business.

#### a) Risk transfer

The objective of risk transfer is to enable a customer minimise the total cost of capital needed to deal with a risk by reinsuring. Values as created may make it more advantageous even to large and very large corporates and insurers who rely on self-insurance to use reinsurance as an alternative to equity capital. This is seen as in the case of life insurers who free their capital deployed in investible assets through reliance upon reinsurance arrangements.

#### b) Risk retention financing

In the second approach there is potential to assist insurers and corporates in financing their retention. This too is a classic field of activity of the reinsurer but in recent years, liberalisation and the resultant innovative power of the capital markets has led to considerable expansion in the number of different products available.

Finite reinsurance and run-off covers have emerged in this segment of financing retention. The use of debt, hybrid and equity tools such as bonds, options and hedges are actively seen structured to finance retained risk.
c) Asset management

The third approach plays a central role in risk transfer and risk retention financing. Asset management refers to the professional management of investments such as stocks and bonds along with real estate, set realistic goals to grow the insurer`s / reinsurer`s wealth and measure the performance.

The days when an insurer / reinsurer could keep the time value of money completely for himself and attempt to make an underwriting profit in all classes of business are gone. Investment income earned during the policy period is factored directly into the premium calculation.

Because of the multiyear nature of finite-risk policies, the time value of money can have a considerable influence on premium. In the case of finite risk reinsurance the anticipated investment income is expressly acknowledged as an underwriting component.

Some of the new forms of reinsurance are considered herein.

a) Multi- Line / Multi- Year Package

This envisages bundling several lines of traditional risks like fire, business interruption and liability and combining special or uninsurable risks like exchange rate fluctuation or political and business risks.

The liability limit and deductible are aggregated across all coverages and risk exposures and is not set individually. The package can be designed to spread risk over time with limits and deductibles set for each year. Premium is set on an integrated basis for the whole package. Such packages are also designed as part of `Enterprise wide Risk Management`.

The longer period provides diversification over time with good years balancing the bad years. Combining several lines of business enables diversification between lines of business. Further, since there is one aggregate retention covering different lines, possibility of accumulation of retained losses that could have taken place under several stand alone covers is not an issue.

The policyholder benefits from -

i. more stable risk cover costs,
ii. efficient insurance limits,
iii. reduced negotiation and administration costs,
iv. a risk package customized to needs avoiding any gap in coverage.
b) Multi-Trigger Cover

Coverage under a traditional insurance policy is "triggered" when the policyholder suffers a loss as the result of an event caused by an insured peril. As the name indicates, multi-trigger covers require more than one triggering event.

The most important feature of a multi-trigger cover is the option that claims are paid by adjusting the financial loss caused by a ‘first trigger’ say fire with financial gain from a ‘second trigger’ say an agreed commodity price movement. A common cover is the foregoing type of ‘Double Trigger’. From an insurers viewpoint this reduces the probability of a loss payment allowing for a lower rate of premium.

Example

An example of a double-trigger policy is one that pays for the actual losses of a manufacturer caused by the following two events occurring simultaneously:

- a power outage resulting from equipment failure or storm related damage and
- the spot market price for power exceeding a preset threshold during the storm or equipment related failure.

c) Contingent Capital

Risk is generally transferred or financed before the occurrence of a loss event. Contingent capital represents one way of financing a loss after the event has occurred. This solution come in handy when a major loss makes causes a crisis of liquidity and it is very expensive or even impossible to raise fresh capital.

In its simplest form this solution is very similar to a loan agreement with a bank with the condition that the policyholder assures himself the right to raise either equity or loan capital at terms agreed before hand should there be a contractually defined insurance event.

A variant to this assurance is the purchase of a put option. For instance, if a pre-specified insurance loss occurs and the share price falls below a pre-defined level, the assured insurer can exercise the put option and raise additional capital at the agreed price. While the loss is charged to the profit and loss account in full, the contingent capital helps sustain business operations post loss. This arrangement is suitable for hedging against extremely rare but severe loss events that affect liquidity.

Contingent capital solutions have been popular with direct insurers principally to help comply with solvency margins and to be able to write business after a major loss event.
d) Finite Risk

This tool was developed by the founders of Centre Re, Bermudas, based on a research study. A major conclusion of their research was that `insurance industry is not adequately compensated for taking an unlimited risk`.

The fundamental approach in a Finite Risk programme is an ultimate limit of liability to the insurer or reinsurer known as `provider`. Within this limitation there are no additional constraints on exposure that can be covered or the period of cover, which could be multi-year.

Features:

i. Aggregate nature of coverage incorporating all pre-agreed risks
ii. Aggregate limit of liability
iii. Cover is designed to operate on multi-year basis, say, 5 years
iv. If cover runs loss free during its multi-year term, premiums as paid
v. are returnable to policyholder with interest at agreed rate for this period.
vi. Finite Risk programmes are usually written by a single reinsurer.

Finite risk solutions have the following characteristics

i. The transfer of risk from the policyholder to the insurer / reinsurer is limited (finite) though significant element of risk sharing between the client and the insurer is present.

ii. Because finite risk solutions rely on time to average out losses policies are written on a multiyear basis.

iii. Premium to the policyholder is primarily a function of individual experience and not based on the experience of the insurer / reinsurer by way of their law of large numbers!

iv. Premiums are held to the credit of the policyholder in an `Experience Account`.

v. Premiums credited to `Experience Account` and not used to pay claims are repaid to the policyholder at the end of the multi-year policy period. In this sense, finite risk solution is similar to a retrospectively rated policy.

vi. Investment income earned on premium funds as credited during the policy period is factored directly into the premium calculation.
Example

Closing calculation:

Coverage : Catastrophe
Treaty Period : 5 Years
Priority : Rs. 10 lacs
Limits : Rs. 50 crores per occurrence
        Rs. 100 crores over the contract period
Annual Premium : Rs. 50 lacs
Provider’s Margin : 6% of premium
Interest : 5% on positive or negative balance in the Experience Account
Profit Commission : 95% of balance at the end of the contract period
Client to pay 95% of negative balance.

Net cost to policyholder with no loss claimed at end of 5 years:

Premium Paid : Rs. 50 lacs X 5 = Rs. 2.50 crores
Interest on Experience Account Balance : Rs. 40 lacs (on annual premiums @ 5% compound)
Provider’s Margin : Rs. 15 lacs
Profit Commission : 95% of (2.50 crores + 0.40 crores - 0.15 crores) = 2.61 crores
Net Cost : Rs. 2.50 crores - Rs. 2.61 crores = - Rs. 0.11 crores (refund to policyholder)

Finite risk or nontraditional insurance products have come under increasing regulatory scrutiny. Critics of these products have expressed concerns that they are actually financial transactions more akin to loans rather than true risk transfer products.

Widening investigations into various finite reinsurance transactions have prompted calls for new regulations and accounting standards and disclosure requirements. Finite-risk contracts must meet requirements as to the amount of risk transfer to qualify as reinsurance for accounting purposes.

To be considered reinsurance for accounting purposes, a reinsurance contract must involve some transfer of risk to the reinsurer. If there is insufficient risk transfer, the transaction is considered a financing mechanism and is booked as a loan or liability instead of an asset.

A well-established rule of thumb for assessing whether true risk transfer has occurred is the so-called 10-10 rule: there is a 10 percent probability of a 10 percent loss of premium. For a long time this rule has been considered sufficient, although in some instances it has been argued that the standard is 15/15 (Fitch Ratings 2004).
e) Financial Reinsurance

Financial reinsurance is a reinsurance with limited potential for profits and losses; the primary objective is to strive for risk equalization over time and to stabilize the ceding insurers`s balance sheet.

Financial reinsurance is a device to transfer a part of business by an insurer to another insurer or reinsurer for a specified period and to appropriate the fund obtained by a transfer of business for policy reserves to strengthen his financial position.

Financial reinsurance is often used as a major means to increase solvency margin like capital and subordinated loan in Europe and the United States.

Financial reinsurance means reinsurance whereby

i. there is not a sufficiently significant amount of underwriting and timing risk transfer to be classified as finite reinsurance, or
ii. there is no underwriting and timing risk transfer but there is a financial risk transfer.

In financial reinsurance, a life or non-life insurer transfers a portion of his risk exposure to the reinsurer. The reinsurer takes benefit from a ceded portion of business and the ceding insurer receives ceding commissions.

The amount of ceding commission is estimated on technical basis, investment yields, business expenses, etc. and is finally decided by the ceding insurer and the reinsurer on the basis of the insurer`s expected business profit, present value and new business expenses.

From a viewpoint of the ceding insurer, in financial reinsurance, the ceding insurer appropriates the ceding commission from the reinsurer for loans and after that he makes yearly settlement to the reinsurer for repayment and charges for risks.

Charges for risks include interest on ceding commission, business expenses, and fees for hedging exchange risk.

The amount of ceding commission is appropriated to augment provision for policy reserves and it contributes to increase solvency margin.

Generally speaking, financial reinsurance is a useful tool when substantial new business has materialized; earnings from investment are considerably reduced due to situational changes in investment climate, to get over a tentative financial strain or to stabilize yearly revenues and expenses.
The financial reinsurance contract is terminated when the ceding commission paid in the first year is redeemed ordinarily in five to seven years.

In many countries the Regulator, in addition to an increase in the fund and capital, accept subordinated loan and financial reinsurance as a means of strengthening owned capital of insurance companies.

There are variants to financial reinsurance. It can specifically address reserves relating to outstanding losses of an insurer by reinsuring their actual payment over a period of time.

Such reinsurance include:
1. `time and distance` policies,
2. spread loss and
3. loss portfolio transfers.

i. **Time and distance policy**: In `time and distance` policy, syndicates at Lloyd’s reinsured their long tailed claims with reinsurers for a premium and invested the difference between the loss reserve and the reinsurance premium in higher interest bearing long term deposits. This enabled them to comply with Lloyd’s regulations for liquidity and yet obtain a higher return from their funds.

ii. **Spread loss**: Spread loss is a contract to pay back to the insurer negative balance in his business as pre-agreed with the reinsurer. These contracts can be continuous or for a fixed term. In effect they protect the credit risk of the insurer. In most countries including the US and UK this form of reinsurance is precluded.

iii. **Loss portfolio transfer**: Loss portfolio transfer is a method for insurers to use reinsurance to effectively discount or supplement their loss reserves. Their reliance is upon reinsurers who assume the ceded loss portfolio transfer at 90% or as agreed and bear the exposure of actual settlement. The loss reserve in the insurer’s balance sheet is diminished to the extent of transfer of outstanding losses to reinsurers.

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**Test Yourself 1**

In which of the following countries did the Risk Retention Group originate?

I. The US
II. The UK
III. India
IV. China
B. Derivative security and Securitisation

1. Derivative Security

**Definition**

A derivative security is a financial security whose value depends upon more primary valuables such as stock prices, exchange rates and interest rates.

These primary variables are called cash market variables. The main forms of derivatives are:

a) futures and forwards,
b) options and swaps.

a) Futures and Forwards

**Definition**

Futures and forwards are agreements where two parties agree to a specified trade in future at a specified time.

These enable the two parties to agreement to lock in a price to a future transaction. Thus these are instruments for hedging risk.

b) Options

**Definition**

Options are where two parties agreed to a trade in the future but one party retains the right to opt out of the trade.

If the buyer holds this right, the option is said to be a call option. If the seller holds this right, the option is said to be a put option. Options provide one-sided protection.

c) Swap

**Definition**

Swap is an agreement to an exchange of risk under different terms.

**Example**

A Japanese reinsurer exchanged his earthquake exposure with windstorm exposure of a Swiss reinsurer.
This would mean that each of the reinsurers protects the other mutually if the exposure turns into an event.

**Derivatives** unbundle risks and pass the risks from parties not willing to take the risk to parties more willing to take the risks.

Following hurricane Andrew the Chicago Board of Trade (CBoT) started trading insurance futures contracts. The development of insurance derivatives such as futures and options for natural catastrophe risks at Chicago Board of Trade was the first attempt to use financial market instruments for controlling insurance risks. A futures contract is a derivative that pays in relation to price movements of an underlying asset or level of an index.

The CBoT created an insurance derivative based on loss-ratio of a panel of US insurers. The buyer pays a price based upon the trading in that derivative in the stock market and on maturity receives a payment linked to the level of the loss ratio at the time of maturity. Herein the buyer’s individual loss ratio would be different from the industry loss ratio used in the derivative transaction. This difference is called ‘basis risk’.

**Weather derivatives** can be of interest in agriculture, energy and leisure sectors where earnings are weather sensitive. An amusement park’s revenues fall sharply when the average daily temperature rises above 96 F. The park wants to protect its revenues. The insurers offer a weather derivative under which the park gets to recover from the insurers if the numbers of days in the specified months have temperature greater than 96 F.

In contrast to this an Ice-cream manufacturer in the same location may opt to cover his sales if the temperature falls below a certain limit. Here is a situation where one peril affects two sets of risks in opposite manner. Such ‘Swap’ like situations suit insurers and reinsurers immensely as they can look forward to premium income from two sources for the same peril with the likely payoff in only one.

2. **Securitisation**

Securitisation is an attempt to get over capacity constraints in the insurance market for natural catastrophes by securitising catastrophe risk portfolios and place them direct with investors in the form of securities. These bring about convergence of the insurance and capital markets.

A catastrophe of say $ 50 billion could severely impact the insurance market but would be routine in the capital market. For insurance it opens up possibilities of new capacities, for policy holders it gives comfort by way of removing credit risk since the capital is made available before the loss occurs and for investors it gives the chance of a higher coupon rate. Canada’s biggest quoted insurer, entered into a securitisation agreement that allows the insurer to sell $50 million of its accounts receivable pertaining to its motor insurance portfolio and realize cash upfront.
3. Special Purpose Vehicle

Securitisation allows issuers to convert their underlying assets into securities or pass through certificates (PTCs). The assets are transferred to a special purpose vehicle, which issues PTCs against them to investors. This process allows an insurer to realise upfront cash, against future receivables.

Special Purpose Vehicle (SPV) as a financial risk instrument is new to the insurance market. Its main function is to facilitate the transfer of insurance risks to capital market. The capital raised is used to set up the SPV, which then issues a conventional reinsurance policy to the policyholder. This is done to ensure that the transaction is formally recognised as a type of reinsurance for both supervisory and tax purposes.

Test Yourself 2

__________ are where two parties agree to a trade in the future but one party retains the right to opt out of the trade.

I. Futures
II. Forwards
III. Options
IV. Swaps

C. New markets

5. New Markets

Widespread changes in financial markets throughout the world have created new challenges and opportunities for the financial services industry, as boundaries between banks and insurance providers disappear, markets deregulate and consolidate in an increasingly competitive environment.

Social changes, potential environmental risks and fluctuating financial markets have created new, complex risk protection needs which require not only professional risk management but also significant risk financing capabilities.

The capital market has been playing a growing role in the retrocessional arena, with regard to both index-based and traditional products.

In most situations, the optimal risk management solution is comprised of a blend of all different product structures—traditional, structured risk, and indexed based—utilizing both reinsurance and capital market capacity. As the price of traditional products harden and the capacity dwindles, the gap between their cost and that of capital market products became smaller.
The result is that the capital market becomes a viable alternative. Alternative Risk Transfer is a broad term that embraces a wide range of risk management products that fall outside the traditional insurance and reinsurance markets. Alternative risk products, which embrace both insurance and financing techniques and often exploit tax and regulatory asymmetries, range from multi-line multi-year covers to the securitisation of risk and derivatives.

Successful writers of ART products have made exceptional profits and this has attracted many entrants increasing the capacity of the market. Any ART technique can be used as alternative to conventional cover, and therefore constitute an additional pool of capacity.

Higher reinsurance prices driven primarily by a shortage of capacity in the retrocession market - the reinsurance of reinsurance - are being reflected in increased demand for ART products. A leading French reinsurer placed $200m of catastrophe bonds providing him with retrocessional cover for three years. With increasing reinsurance rates it is found more reasonable to obtain coverage through bond offerings.

This is understood to have been a factor in the largest rural insurer in US writing significant motor business for tapping the capital markets through the issue of $90m of windstorm bonds. GIC Re has a long term umbrella excess cover via ART (Alternative Risk Transfer) with a leading European reinsurer with cover limit of Rs.200 crores for domestic risks and limit of USD 20 million for overseas risks.

There is increasing interest from chief financial officers in how risk transfer solutions can affect performance ratios or reduce volatility. A number of power companies have used weather derivatives to hedge against different exposures that can influence revenues and earnings.

Particularly they have been active with financial guarantees, whereby insurance is used to facilitate a financing structure by guaranteeing cash flow, credit enhancements or credit wraps. Insurance is therefore used to improve the credit profile of a borrower and enable him reduce the cost of his borrowing.

The insurance industry and the investment community are continuing to grow in their understanding of alternative risk techniques.

Investor interest in catastrophe bonds is strong, with a growing number of dedicated investment funds. While banks may have taken the early lead in developing ART techniques, many international reinsurers have established dedicated subsidiaries that are important participants in the ART market.

Munich Reinsurance Co. is extending its partnership with German bank HVB Group to include jointly financing and reinsuring of large-scale projects. Under their agreement the world's largest reinsurer will offer alternative risk transfer products to provide refinancing opportunities for HVB.
6. Brokers in the New Market

As is true at all times when there are market changes, clients are looking at their own gross portfolios and assessing all of the options available to help them manage their risk efficiently and effectively. Increasingly, they look to their brokers for assistance in this area.

Brokers are expected to help clients model the various coverage options in terms of how each might help them reduce the volatility of their income statement and add to the safety of their balance sheet, and at what cost.

They will be expected to offer them total reinsurance solutions, which may involve securitization as well as both traditional and nontraditional reinsurance.

Clients want brokers to present them with the consulting services and specialized risk transfer mechanisms necessary to address a full range of risk management scenarios.

They do not want to go to one specialist for one type of solution and then have to compare it with another solution from a different specialist.

Changes therefore impose constant demand on brokers to develop expertise to help their clients understand and quantify their risks, develop comprehensive risk profiles and assess risk and financing alternatives in addition to assisting them in obtaining the best prices and terms.

These brokers will have to remain competitive and assist their clients to get the best out of both insurance and capital markets.

7. Impact upon Reinsurance Markets

A Swiss Re study has estimated that US $ 50 to US $ 60 billion is retained each year in large corporation captive insurance and self-insurance. This is around 25% of the world’s commercial non-life premium.

Captives do require reinsurance and have caused a shift in the position of the insurer of its parent group as reinsurer to the same group.
Captives with its professional managers have driven for the best coverages at optimal prices. There are over 4000 captives in operation worldwide. The real impact on reinsurance market came from high self retentions.

This followed risk due diligence and high deductible backed by sound risk management practice and succeeded in withdrawal of considerable premium from the world property market.

Just one instance would underscore this point. British Petroleum who paid US $ 125 million in premium each year took a decision not insures except for legal compliance upto a limit of US $ 10 million.

This put out of the world energy market a huge premium amount. With increasing losses and diminishing premium the world reinsurance market faces an unprecedented situation. The alternative markets stepped in to fill the gap and provide capacity. Reinsurance markets are not the same any more.

### Test Yourself 3

What is the main reason for increase in demand for ART products?

I. Higher reinsurance prices driven primarily by a shortage of capacity in the retrocession market
II. Increased fluctuations in the financial market
III. Exploitation of tax and regulatory asymmetries
IV. For providing multi year covers to securitization of risk and derivatives
Summary

a) Alternative transfer includes alternative types of risk carriers such as - Self insurance, Risk Retention Groups, Pools and Captives.

b) The objective of risk transfer is to enable a customer to minimise the total cost of capital needed to deal with a risk by reinsuring.

c) Asset management refers to the professional management of investments such as stocks and bonds along with real estate, set realistic goals to increase the insurer’s / reinsurer’s wealth and measure the performance.

d) In risk retention financing, there is potential to assist insurers and corporates in financing their retention.

e) A derivative security is a financial security whose value depends upon primary valuables such as stock prices, exchange rates and interest rates.

f) Derivatives unbundle risks and pass the risks from parties not willing to take the risk to parties more willing to take the risks.

g) Securitisation is an attempt to get over capacity constraints in the insurance market for natural catastrophes by securitising catastrophe risk portfolios and placing them directly with investors in the form of securities.

h) Securitisation allows issuers to convert their underlying assets into securities or pass through certificates (PTCs).

i) Alternative Risk Transfer is a broad term that embraces a wide range of risk management products that fall outside the traditional insurance and reinsurance markets.

j) Higher reinsurance prices driven primarily by a shortage of capacity in the retrocession market - the reinsurance of reinsurance - are being reflected in increased demand for ART products.
Answers to Test Yourself

Answer 1

The correct answer is I.

Risk Retention Group originated in the US with the passing of the Liability Risk Retention Act, 1981.

Answer 2

The correct option is III.

Options are where two parties agree to a trade in the future but one party retains the right to opt out of the trade.

Answer 3

The correct answer is I.

Higher reinsurance prices, driven primarily by a shortage of capacity in the retrocession market, have led to increase in demand for ART products.

Self-Examination Questions

Question 1

Which of the following is a technique of risk management?

I. Risk transfer
II. Risk retention group
III. Risk retention financing
IV. Asset management

Question 2

Market terrorism pool is an example of which of the following alternative carriers?

I. Self insurance
II. Risk Retention group
III. Pool
IV. Captive
Question 3

__________ refers to the professional management of investments such as stocks and bonds along with real estate, set realistic goals to increase the insurer`s / reinsurer`s wealth and measure the performance.

I. Risk Retention financing  
II. Self insurance  
III. Captive  
IV. Asset management

Question 4

__________ is a device to transfer a part of business by an insurer to another insurer or reinsurer for a specified period and to appropriate the fund obtained by a transfer of business for policy reserves to strengthen its financial position.

I. Finite risk  
II. Contingent capital  
III. Financial reinsurance  
IV. Multi-trigger cover

Question 5

__________ is a contract to pay back to the insurer the negative balance in his business as pre-agreed with the reinsurer.

I. Time and distance policy  
II. Spread loss  
III. Loss portfolio transfer  
IV. Swaps
Answers to Self-Examination Questions

Answer 1

The correct option is I.

Risk transfer is a technique of risk management.

Answer 2

The correct option is III.

Market terrorism pool is an example of Pool, alternative carrier.

Answer 3

The correct option is IV.

Asset management refers to the professional management of investments such as stocks and bonds along with real estate, set realistic goals to increase the insurer’s / reinsurer’s wealth and measure the performance.

Answer 4

The correct option is III.

Financial reinsurance is a device to transfer a part of business by an insurer to another insurer or reinsurer for a specified period and to appropriate the fund obtained by a transfer of business for policy reserves to strengthen its financial position.

Answer 5

The correct option is II.

Spread loss is a contract to pay back to the insurer negative balance in his business as pre-agreed with the reinsurer.
CHAPTER 13

INWARD REINSURANCE BUSINESS

Chapter Introduction

In this chapter, we will discuss the need of inward reinsurance business and business strategy followed by insurance companies’ inward reinsurance business. Towards the end of the chapter, we will also briefly discuss retrocession and reciprocal trading and their impact on reinsurance business.

Learning Outcomes

A. Need for inward business
B. Business strategy
C. Retrocession Arrangements & Reciprocal Trading
A. Need for inward business

1. Inward insurance

Inward reinsurance is written by both professional reinsurers and direct writing companies. Practically, most insurers write inward reinsurance business besides the reinsurers.

They can be broadly divided into the following groups:

   a) Direct companies accepting business;
   b) Professional reinsurance companies;
   c) Underwriting agents writing business on behalf of other companies.
   d) Lloyd’s underwriters in London and underwriters in similar exchanges in the U.S.A.
   e) State reinsurance corporations in various countries;
   f) Regional reinsurance corporations;
   g) Captive insurance markets with their fronting.

2. Need of inward reinsurance business:

Whilst a professional reinsurer is a specialist insurer writing only reinsurance business, direct writing insurance companies may be guided by the following main reasons for wanting to write inward reinsurance business:

   a) To increase net retained premium.

   b) Due to several reasons like statutory regulations or economic depression in various countries of the world, insurers may wish to go in for reinsurance business than for direct business to supplement their growth.

   c) To achieve a lower expense ratio by the maintenance of the volume of premium income. This is an extension of the objective at (a) above. Normally, outward cessions would tend to reduce the gross direct premium income and consequently expense ratio on the net premium would be higher.

However, an insurer may accept inward reinsurance business to increase his net premium income, which otherwise gets depleted by outward cessions, to be able to maintain a lower expense ratio.

Underwriter must take into consideration the overall cost structure of reinsurance business including commission and brokerage paid, as opposed to the cost in procuring direct business.
d) To obtain a better and wide spread of business by writing business from overseas. Reinsurance business is subject to fluctuations and a better balance can be achieved by spreading one’s acceptances across markets and to minimize the effect of claim fluctuation.

e) To counteract the drain of foreign exchange on account of reinsurance ceded abroad. This thinking is in practice in several developing countries, where there is outward flow of balances on account of reinsurances ceded but not sufficient inward business flow.

However, this reason has to be tempered by the fact that if the outward reinsurance has been unprofitable to the reinsurers, this will result in an inward cash flow to the ceding insurer.

Secondly it is difficult to find good quality inward reinsurance; therefore, a reinsurer may often find himself paying out more than he expected to receive.

f) To earn an investment income, which is derived from cash flow resulting from inward acceptances. This objective again has to be viewed in the context of market conditions, where underwriting losses are more predominant and reverse cash flow is more common.

g) To act as a “window” on international reinsurance markets; that is, to be in touch with the developments in reinsurance thinking and techniques in other countries of the world.

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**Test Yourself 1**

For which of the following reasons does ‘direct writing insurance companies’ start to write inward reinsurance business?

I. To increase payment of claim amount

II. To achieve a lower income ratio by the maintenance of the volume of premium income

III. To obtain a better and wide spread of business by writing business from overseas

IV. To spend investment income, which is derived from cash flow resulting from inward acceptances
B. Business strategy

1. Business Strategy

An insurer or reinsurer who wishes to transact inward reinsurance business requires development of a corporate strategy supported by proper infrastructure within his insurer to handle the business in order to produce a reasonable profit over a period of time, say, 5 years.

This business requires skills and knowledge of reinsurance techniques of a high order and wide experience of the international markets. Certain free markets and lines of business such as U.S. liability, professional indemnity, etc. tend to produce extremely adverse results. Therefore intimate knowledge of markets and classes of business is very essential in restricting or excluding acceptances.

The insurer or reinsurer would be prudent in undertaking a detailed study of the market conditions in which he will be operating, the expected spread of risks and volume of business. Over capacity in reinsurance markets worldwide, use of capital markets as an alternative and the drive towards risk retention alter the profile of what emerges from the market place.

Whereas a few professional reinsurers dominated the world reinsurance scene a few decades back, there has been dramatic changes in the methods and forms used and the use of non-traditional markets which adds to the traditional reinsurers. The composition of reinsurance capacity is not what it was in the past. The capacity is available from both reinsurance and capital markets. The insurer or reinsurer should plan to write a reasonably large line to attract business with quality and to keep his costs of acceptances economical.

Retrocession is an essential tool in the risk management process of reinsurers. Close to 90 percent of global reinsurers depend on some form of retrocessional protection as a means both to cede a portion of their risk and to stabilize their earnings. A large number of inward offers reflecting this global market reality of retrocession may be received. All may not be of sufficiently good quality. Further reinsurers have also to cope with financial problems like delayed remittances and exchange losses from acceptance of retrocession business.

The tool of credit rating assists in determining quality. However, gathering information first hand would additionally assist for diligence in writing inward reinsurance. A suitable management information system is required to be in place to be able to constantly monitor the results of each acceptance and the inward portfolio as a whole.

The insurer or reinsurer must also be aware of accumulations arising from inward reinsurance business, particularly in respect of regions prone to natural perils like earthquake, cyclones, storms, floods, bush fires etc. These accumulation risks can be controlled through proper information system and retrocession.
2. The Underwriting Philosophy

a) Reciprocal /Non-reciprocal

The basis on which to underwrite business is to be considered i.e., reciprocal or non-reciprocal.

An insurer or reinsurer may have his own basic treaties to serve as a medium of reciprocity for the inward business in which case he may go in for reciprocal trading. On the other hand, non-reciprocal business may also be sought by them to increase their net premium.

b) Gross or Net lines

An insurer or reinsurer accepting reinsurance business has two options open to him

i. He can write lines for his net account i.e. write such shares as can be retained by himself without retrocession. or

ii. He can write larger shares and create a retrocession treaty to take care of the surplus over his net retention.

Normally an insurer or reinsurer starting to write reinsurance business will write only net lines for various reasons. Firstly, he has to gain certain amount of experience in underwriting. Secondly, a retrocession treaty placed abroad, especially in a generally hardening market and where there is no information regarding the nature of the business included, requires a great deal of selling.

Further the over-riding commission received on such retrocession arrangement may not be sufficient to cover the administrative cost involved.

c) Treaty or facultative reinsurance business

Facultative reinsurance business will necessarily involve more administrative work because each offer will have to be scrutinised individually and either accepted or declined.

Amount of premium involved is comparatively small and the underwriter will need to have an intimate knowledge of tariffs and other market conditions from which the business emanates and in this respect it is similar to direct insurance.

On the other side, premium volume can be built up faster in treaty business but a treaty underwriter should be conversant with various contractual conditions in addition to being up-to-date market conditions. He must have the machinery to build up statistics and the ability to interpret them.
Therefore, it is more a question of right persons for the right job than whether it should be treaty or facultative expertise. Depending on the expertise available, an insurer or reinsurer may select either or both forms of reinsurance.

d) Proportional and non-proportional

The insurer or reinsurer will have to make a broad estimate of the portfolio mix i.e. how much of the business written will be proportional and what percentage will be non-proportional. Each type has its distinguishing characteristics and further sub-divisions.

**Example**

In proportional class, there are quota share, surplus, facultative obligatory treaties etc.

Besides, whilst an individual treaty may have a limit of its own, accumulations is possible under one treaty by same event and also under various treaties, particularly for catastrophe perils.

The non-proportional treaties have their own advantages such as:

i. the reinsurer knows the limit of his liability under an individual acceptance;

ii. he may also have a say in the rating of the cover.

However, accumulations are equally possible under non-proportional.

e) Territorial Scope

Domestic business is easily manageable because of lower costs and its being free from exchange controls etc. The underwriter also will be more familiar with the local market.

However, if one wants a better geographical spread, one has to write foreign business. Therefore, a new entrant will probably start with domestic business and gradually enlarge his scope to international reinsurance business.

Again, in overseas markets the insurer or reinsurer may wish to avoid business from certain countries for political reasons or which are economically unsatisfactory.

U.S. and Canadian business have their own peculiarities and unless the underwriter is familiar with such business, it cannot form part of his business portfolio.
f) Classes of business

The insurer or reinsurer will also have to decide on the classes of business he will write -

i. short tail such as property business or
ii. long tail such as liability (casualty) business.

Initially an insurer or reinsurer may wish to write only short-tail business as in long-tail business the extent of claims will not be known for many years and can unexpectedly hit hard at a future date.

g) Binding authorities

Granting of an underwriting or binding authority to another insurer or agency to write business in behalf of an insurer or reinsurer has its own hazards. The agency may write a large volume of premium regardless of quality, just to earn commission or may exceed its authority, involving the insurer or reinsurer in difficulties.

Therefore prudent underwriters will exercise due care and diligence in writing inward reinsurance by granting such authority. Similarly, some reinsurers may have reservations on participating in pools and brokers’ covers for similar reasons.

h) Direct or through brokers

It is to be decided, whether acceptances will be made on a direct basis or through the intermediary of a broker or both. The writing of business on a direct basis will require experienced staff to travel to different countries on an organised basis to procure and service business.

This will also involve considerable expenditure. On the other hand, international reinsurance brokers with their extensive world-wide contacts will be able to produce a portfolio of business but the cost of brokerage is to be taken into account. Normally, an insurer or reinsurer starting to write inward business will do so mainly through brokers and also try to develop his direct contacts.

i) Acceptance limit

The acceptance limit of a reinsurer should be sufficiently large to make it attractive for the ceding insurers and brokers to offer business.

This, of course, should bear some relationship to the financial standing and the premium income of the reinsurer. If the limit of acceptance is low, this may make the handling of business administratively uneconomical for all concerned and the insurer may find it difficult to build up a sizeable portfolio.
j) Guidelines for acceptances

Apart from the factors mentioned above such as category, class of business, geographical scope etc., the insurer / reinsurer should lay down guidelines for accepting business, with particular emphasis being laid on business with a satisfactory past experience, so that a reasonable profit may be ensured over a period of years.

Again, the administration of an inward portfolio will involve an expense and therefore premium per contract should be sufficient enough to justify the cost involved in having the business in the books of the insurer / reinsurer. In addition, the guidelines must also lay down as to who is the competent authority to make acceptances on behalf of the insurer.

Test Yourself 2

Which of the following tools help in determining quality in the case of inward reinsurance business?

I. Management Information System
II. Credit Rating
III. Retrocession
IV. Foreign exchange expertise

C. Retrocession Arrangements and Reciprocal Trading

8. Retrocession Arrangements

As soon as an acceptance is made, a concurrent decision will have to be taken regarding its retention and underwriting. The accepting insurer or reinsurer may retain it wholly for his net account or retrocede a part of the acceptance to a retrocession arrangement, if any, or even arrange a specific retrocession on an individual acceptance with another reinsurer.

The underwriting position is to be advised to accounts section by a separate memo or through retrocession schedules containing details of how each arrangement is underwritten. This step will not be necessary, if the reinsurer accepts lines only for his net account and does not retrocede part of business.

Retrocession is required by a lead underwriter who leads quotes on a reinsurance proposal. The larger his acceptance the higher is the confidence of his following underwriters.

Retrocession is also required to enable acceptance of economical lines. Otherwise reinsurance offers can become scarce due to inability to accept larger lines.
The absence of retrocessional support, when market is hard, exerts significant influence on rate quoted by lead underwriters as the primary reinsurer. When market is soft, and there is over capacity lead underwriters yield to broker pressure to quote lower and retrocession support is still forthcoming.

These two scenarios describe the hard and soft markets best seen in the behaviour of retrocessional markets and extending to lead primary reinsurers.

Changes in buying approach of purchasers of direct insurance through self retentions and alternative means has impacted upon retrocessional markets. These markets include captives and capital markets providing alternative cost effective capacity.

9. Reciprocal Trading

Reciprocal reinsurance trading is considered important by ceding insurers. They value their outward treaties that form the basis of their reciprocal trading. So much so that they tend to protect the experience of such outward treaty by measures such as not utilizing the full treaty capacity for more hazardous risks or arranging an excess of loss cover to protect the treaty portfolio.

They are also ready to offer adjustments in commission, profit commission and reciprocity terms to keep the treaty exchanges balanced.

The benefits derived from a reciprocal exchange of treaties are two-fold:
   a) It enables the ceding insurer to add to his net premiums and net profits;
   b) It provides a wider spread for the net retained portfolio of the insurer with an improved balance thus ensuring greater stability in underwriting surplus.

Insurers with a substantial property premium are able to exchange business against their first surplus property treaty while others have to be content with obtaining the best possible terms for their business. The first surplus property treaty limits are determined at the highest possible level consistent with the objective of securing the best possible terms.

The practice of reciprocal reinsurance trading which is so evident in the fire and hull lines of business is not widely prevalent in other lines of business. However, it is customary to exchange business of like type among insurers.

When dealing with markets of lower average profitability, one can think of more than 100% premium reciprocity to balance the exchange of profit.

Theoretically, a ceding insurer with a treaty with average 10% profitability can expect to receive 200% premium reciprocity from a reinsurer whose treaty has an average profitability of 5%. However, if the reciprocating insurer has a much better balance for his treaty and is able to conclude short of 100% profit reciprocity in consideration for the steady results.
One danger in accepting large premium reciprocity from a treaty with a low average profitability is that the profit is subject to wide fluctuations. It is therefore preferable to increase profit commission suitably to bring down the net profit ceded.

On the contrary, larger premium reciprocity adds to the net premium of the ceding insurer and has other advantages flowing from it such as creation of larger reserves and reduction of tax on profits consequently.

When examining the terms of any treaty exchange through an intermediary one must bear in mind the impact of brokerage cost on the result of reciprocal profit from the inward treaty.

10. IRDA Regulations:

As per IRDA Regulations all life and non-life insurers in India can write inward reinsurance business from other domestic insurers and from overseas.

They must have a well-defined underwriting policy for underwriting inward reinsurance business.

The insurer needs to ensure that decisions on acceptance of reinsurance business are made by persons with necessary knowledge and experience.

The insurer is required to file with the IRDA a note on his underwriting policy stating the classes of business, geographical scope, underwriting limits and profit objective.

The insurer is also required to file any changes to the note as and when a change in underwriting policy is made. Retrocession from ceding to GIC Re and the Pools are mandatory inward reinsurance to insurers in India.

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<th>Test Yourself 3</th>
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In inward reinsurance business, why is retrocession required?

I. For formulating terms and condition of agreement
II. To enable acceptance of economical lines
III. For indemnifying excess of loss
IV. For mutual exchange of risk
Summary

a) Inward reinsurance is written by both professional reinsurers and direct writing companies.

b) Retrocession is an essential tool in the risk management process of reinsurers.

c) A suitable management information system is required to be in place to be able to constantly monitor the results of each acceptance and the inward portfolio as a whole.

d) Retrocession is required by a lead underwriter who leads quotes on a reinsurance proposal. The larger his acceptance, the higher is the confidence of his following underwriters.

e) The absence of retrocessional support, when market is hard, exerts significant influence on the rate quoted by lead underwriter as the primary reinsurer.

f) Reciprocal reinsurance trading is considered important by ceding insurers. They value their outward treaties that form the basis of their reciprocal trading.

g) The practice of reciprocal reinsurance trading, which is so evident in the fire and hull lines of business, is not widely prevalent in other lines of business. However, it is customary to exchange business of like type among insurers.

h) As per IRDA Regulations, all life and non-life insurers in India can write inward reinsurance business from other domestic insurers and from overseas.
Answers to Test Yourself

Answer 1

The correct answer is III.

One of the reasons due to which direct writing insurance companies start writing inward reinsurance business is to obtain a better and wide spread of business by writing business from overseas.

Answer 2

The correct option is II.

Tool of credit rating helps in determining quality in the case of inward reinsurance business.

Answer 3

The correct answer is II.

In inward reinsurance business, retrocession is required to enable acceptance of economical lines.

Self-Examination Questions

Question 1

As per IRDA regulation, who among the following can write inward reinsurance business from overseas insurers?

I. Only life insurance companies
II. Only non life insurance companies
III. Only general Insurance companies
IV. Both life and non life insurance companies

Question 2

Which of the following is an example of ‘short tail’ class of business?

I. Property
II. EAR
III. Marine
IV. Liability
Question 3

Which of the following is a benefit derived from reciprocal trading?

I. It enables the reinsurer to add to his net premiums and net profits
II. It provides a wider spread for the net retained portfolio of the reinsurer with lowered losses, thus ensuring greater stability in underwriting surplus
III. It enables the ceding insurer to add to his net premiums and net profits
IV. It provides a wider spread for the net retained profits/income of the reinsurer with an improved performance, thus ensuring greater stability in reciprocal trading

Question 4

In which of the following business is Reciprocal reinsurance trading most popular?

I. Accident/Liability
II. Motor
III. Property
IV. Fire and Hull

Question 5

When market is hard, and there is no retrocession support, then what will be the repercussions?

I. The absence of retrocession support exerts significant influence on the rate quoted by lead underwriter as the primary reinsurer.
II. The absence of retrocession support exerts significant influence on the rate quoted by ceding insurer.
III. Lead underwriters yield to broker pressure to quote lower rates
IV. Lead underwriters yield to broker pressure to quote higher rates
Answers to Self-Examination Questions

Answer 1

The correct option is IV.

As per IRDA Regulations, all life and non-life insurers in India can write inward reinsurance business from other domestic insurers and from overseas.

Answer 2

The correct option is I.

Property insurance is an example of short tail class of business.

Answer 3

The correct option is III.

One of the benefits derived from reciprocal trading is that it enables the ceding insurer to add to his net premiums and net profits.

Answer 4

The correct option is IV.

Reciprocal reinsurance trading is most popular in fire and hull.

Answer 5

The correct option is II.

When market is hard and there is no retrocession support, then the absence of retrocession support exerts significant influence on the rate quoted by lead underwriter as the primary reinsurer.
CHAPTER 14

PROCESSING INFORMATION FOR REINSURANCE DECISIONS

Chapter Introduction

In this chapter, we will discuss the importance of statistics in reinsurance. We will also briefly discuss the use of communication and information technology in reinsurance business.

Learning Outcomes

A. Importance of statistics in reinsurance
B. Use of communication and information technology
C. Organisation of the reinsurance department
A. Importance of statistics in reinsurance

1. Importance of Statistics in Reinsurance

From the IRDA Regulations for Reinsurance:

“Every insurer shall be required to submit to the Authority statistics relating to its reinsurance transactions in such forms as the Authority may specify, together with its annual accounts.

“Every insurer shall make outstanding claims provisions for every reinsurance arrangement accepted on the basis of loss information advices received from Brokers / Cedants and where such advices are not received, on an actuarial estimation basis.”

The more important data that should be capable of being made available from a good information system used by the primary insurer should be -

a) Direct premium data to calculate the reinsurance premium payable to the reinsurers;

b) Data for individual losses needed to apply treaty limits and excess retentions;

c) The above data for accounting purposes;

d) Codes generated for catastrophe losses;

e) Codes for identifying occurrences under casualty `clash` coverage;

f) Data to determine the portion of policy/ies ceded to each surplus share reinsurer;

g) Separate data on retention, limits, rates and reinsurer involved for each facultative;

h) placement;

i) Information on risks included in treaty but not ceded for preserving profitability of treaty;

j) Data on risks excluded under the treaty but underwritten by the primary insurer so as not to include the same in the reinsurance bordereau;

An accurate and efficient information system helps in increasing credibility of the primary insurer and helps in renewal of treaties. The primary insurer must make available his books of account for inspection by the reinsurer.

Maintenance of accurate statistics relating to acceptances and their speedy and timely availability is vital for the successful conduct of reinsurance business.

These are necessary for periodically monitoring the performance of each reinsurance arrangement and to take remedial action where necessary.
Some examples of reinsurance statistics required by managements for effective control are:

i. Treaty wise quarterly statistics
ii. Broker wise statistics
iii. Country wise statistics
iv. Insurer wise statistics
v. Proportional and non-proportional statistics
vi. Class of business statistics
vii. List of overdue accounts
viii. List of outstanding balances

The basic statistics relating to a treaty are collated from accounts statements as sent and received. Information can be processed from these basic statistics for any type of review requirement considered as important including an assessment of cash flows.

Review of acceptances is to be done periodically and in any case at least one major review must be done in a year. Such review is of importance and part of the duties of executives in charge of underwriting and administration.

The review must be done well in advance of the notice period, that is, if a treaty provides for notice of cancellation to be given by 30th September, the review would need to be conducted in July-August, with the up-dated accounts based information.

2. Gathering and Analysing Statistics: Underwriting Issues in Reinsurance Treaties

The essential features of a review are whether:

a) the accounted premium is consistent with the estimated premium taking into account the development normally to be expected. A sudden increase or decrease calls for review with the insurer or reinsurer concerned;

b) the profit commission statement agrees with the accounted figures;

c) the release of reserves and portfolio movements are in accordance with the treaty provisions;

d) the overall result of the treaty is a profit or loss, due attention being paid to outstanding loss provisions;

e) the rendering of accounts and settlement of balances is prompt;

f) treaty document was received or not.
In case of treaties where the above review show signs of deterioration, it may be necessary to tender a provisional notice of cancellation to the ceding insurer, keeping in mind
- the current trend of business,
- other business from the insurer,
- overall relationship and
- any other special considerations.

The results would be normally watched over 3 to 4 years period when the quality of the treaty would be definitely known to the underwriter.

If there is a reciprocal exchange, all the business exchanged with the insurer or reinsurer is summarised in a sheet, showing cessions on one side and matching acceptances on the other side. Premiums, commissions, incurred claims and net results for each contract year are shown.

The statistical summary assists for an assessment of historical exchange of results and impact of changes in rate of exchange upon these results. Any imbalance in premiums or profit may call for adjustment in terms.

In reviewing excess of loss reinsurance due regard is paid to check the validity of assumptions made while making the acceptance, regarding GNPI, exposures involved, adequacy of rate, etc. A follow-up action is necessary on the provisional notice of cancellation. Such notice may also be given by the ceding insurer to review the terms for the ensuing year.

Generally, the ceding insurer will send well in advance renewal terms for the following year along with up to date statistics. Where a notice has been given, the reinsurer must decide on continuation with the business. If he decides to terminate his participation, a definite notice of cancellation is given.

On the other hand, if the study of renewal terms justifies continuation, provisional notice will be withdrawn and acceptance conveyed to the ceding insurer. The accounts department is to be kept duly informed for all definite cancellations and changes in terms.

3. Provision for Outstanding Losses

At the end of the accounting year, a provision is required to be made for outstanding losses in respect of all cessions and acceptances. Generally, in respect of acceptances the ceding insurers are not in a position to provide an estimate of outstanding losses to their reinsurers in time for inclusion within their annual accounts.

Therefore, reinsurers all over the world have devised their own methods for making estimates of outstanding provisions. The underwriter has to review each of his acceptances and make a reasonably accurate estimate of outstanding losses.
Some of the methods followed are:

a) Estimated losses as advised by the ceding insurer as at the date of closing. If this is not available estimates at the latest available date plus large losses intimated subsequently but not paid;

b) Where there is a provision for portfolio entry in the treaty concerned, the same amount is to be included as estimate for outstanding claims;

c) Where the ceding insurer has provided renewal statistics information on outstanding losses will be available therein. If latest statistics are not available, then the trend of incurred claims ratios over a period would assist to estimate the incurred claims for the current year and a provision for outstanding claims can be made after deducting the paid claims for the year;

d) The underwriter may also decide to make an additional “ad hoc” provision for claims incurred but not reported (IBNR), say, addition of 10% of outstanding claims as IBNR.

It is emphasised that none of the methods enumerated above is totally satisfactory but a combination of the methods and consistency of practice in making provisions ensures reasonable and acceptable procedure.

4. Control of Accumulation

Accumulation hazards form an inherent part of reinsurance business and a careful control is required to be maintained on exposures due to earthquake, storms, tornados and other catastrophic perils in different parts of the country and the world.

The frequency, timing and severity of such phenomena can vary from area to area and such variations can be found even in one location. Some areas are liable to very occasional but severe earthquakes but some others may be liable to more frequent shocks of lower intensity. Similarly, cyclones can hit a coastline otherwise free from the strong winds associated with temperature and latitude.

The data base in this respect is created at the time of issue of a policy or acceptance of reinsurance. It calls for the underwriter to seek such information and include it for control.

5. Earthquakes and Accumulation of Hazard

Insurers as well as reinsurers are primarily concerned with the damage caused to property as a result of an earthquake. It is possible to obtain reasonably accurate instrumental measurements of magnitude, depth and location for earthquakes from the network of seismometers operating around the world.
The magnitude (M) of an earthquake is measured on the Richter Scale and the scale of intensity, which is a measurement of the severity of the event, is expressed in the Modified Mercalli Scale.

The effect of an earthquake on a structure depends on various factors such as its magnitude, the depth of its epicentre, the distance and direction of the epicentre as well as the type of construction of the structure and the type of subsoil in the surroundings.

Zones highly exposed to earthquake are:

- a) West Coast of U.S.A., Central America, Caribbean Islands, West Coast of South America.
- b) Southern Europe i.e. Italy, Spain, Yugoslavia, Rumania, Greece and Turkey
- c) North Africa i.e. Morocco, Algeria, Tunisia
- d) Iran, Iraq and Afghanistan
- e) Nepal, Assam, Burma
- f) Japan, Taiwan, Philippines, Indonesia, Fiji and New Zealand.

The underwriter must first determine the zones which may be affected by damage from a single event with the aid of seismic map. These zones are fixed separately by each insurer and reinsurer according to his underwriting policy.

Then he has to work out a uniform system dividing an area into earthquake accumulation control zones according to which the commitments may be ascertained.

6. Assessment of Cumulative Commitments

The assessment of commitments has to be done zone wise and for this purpose accumulation control sheets are maintained. All liabilities for risks coming under the zone are listed in such sheets.

The Proforma may show the:
- zone,
- class of business,
- ceding insurer,
- treaty name,
- earthquake liability for the reinsurer’s share in terms of sum insured and
- the relevant date.
This information has to be kept up-to-date with changes in liabilities under the various acceptances. By assessment of the total liabilities in each zone, an underwriter will be in a position to control his future acceptances as well as arrange suitable catastrophe protection for his existing commitments.

Other catastrophe risks and zones

Some other catastrophic risks and areas prone to such perils are as under:

<table>
<thead>
<tr>
<th><strong>Storms</strong></th>
<th>i. U.S.A., ii. Europe and iii. Australia</th>
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<tbody>
<tr>
<td><strong>Tornadoes</strong></td>
<td>i. U.S.A., ii. Europe, iii. Japan and iv. Australia</td>
</tr>
<tr>
<td><strong>Bush Fires</strong></td>
<td>i. Australia</td>
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</tbody>
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Whilst it may not be practicable to maintain an exhaustive control on accumulations arising out of each catastrophic peril, an underwriter must be aware of the dangers involved in such accumulations and modify his underwriting policy accordingly.


Both ceding insurers and reinsurers need periodical statistics of their business for decision making and review purposes. Review of past trend for renewal of the reinsurance business depends on statistics which must be reconciled with reinsurance accounts. It is therefore necessary to have efficient data processing arrangements to gather and analyse data.
The insurer or reinsurer must be clear about his basic objectives in the business of reinsurance and establish a decision support system.

A reinsurer in the main has to monitor the performance of
- individual treaties,
- the main classes of reinsurance business,
- the business obtained from different countries and regions;
- claims trends and provisions;
- exposures etc.

Most of this information is also equally valuable to a ceding insurer because both parties to a reinsurance treaty should be equally well-informed regarding its performance.

There is little homogeneity in business written and the requirements from statistics tend to be wide-ranging.

As with other insurance statistics, there are various factors which affect underlying statistical trends, which include:
- class of business;
- type of reinsurance contract;
- legislation of country of origin;
- types of claim;
- currency;
- inflation.

Secondly the information is used by various categories of employees in the insurer`s or reinsurers` organisation which includes:
- underwriting staff;
- accounting staff;
- marketing;
- claims staff;
- management.

The uses of the information produced from a statistical base include
- production of accounts;
- production of marketing information;
- production of rating information, either for individual ceding companies or portfolios;
- premium and claims trends;
- assessment of outstanding claims and IBNR reserves;
- financial planning.

All these needs should be satisfied from a good statistical system, although the types of output can differ considerably depending upon the user`s requirements.
8. Guidelines For Evolving A System

The following are the main aspects to be looked in evolving a statistical system:

a) Production of statistics for each of the outward treaties;
b) Preparation of outward accounts and various other books of records;
c) Requirements of reconciliation of balances and review of cash flow;
d) Marketing information required for outgoing treaties;
e) Review of business accepted for the purpose of ascertaining its profitability;
f) Review of reciprocal exchanges for the purpose of ascertaining profitability;
g) Statistical requirements for complete analysis of the portfolio underwritten and to ascertain exposures;
h) Statistical and accounting requirements for retrocession treaties;
i) Information on large claims;
j) Ascertaining aggregate loss amount due to one catastrophic event, which may affect the reinsurers through several treaties;

Test Yourself 1

In the case of ______________, all business exchanged with the insurer or reinsurer is summarised in a sheet, showing cessions on one side and matching acceptances on the other side.

I. Reinsurance arrangement
II. Reciprocal exchange
III. Retrocession arrangement
IV. Cancellation of reinsurance agreement

B. Use of communication and information technology

The wider use of computers and telecommunications has led to a growing preference for simplified administration procedures. At one time the insurer passed copies of all papers to reinsurers / brokers who then did all the necessary work to produce the reinsurance accounts themselves.

Today, E.D.P. techniques have made it possible for insurers to produce reinsurance accounts themselves at a minimum cost thus saving the reinsurers / brokers a great deal of administrative effort. The saving made by the reinser is passed on to the insurer in the form of more competitive rating.

The application of electronic data processing methods in reinsurance business is advanced and gained acceptance in countries all over the world. In some offices, EDP system is being used for the first time, whilst in others it is in a second or third generation environment with on-line systems and with terminals in the place of work.
There are detailed procedures to be followed from an initial corporate decision to investigate the need for a new system, through
- feasibility studies,
- tendering,
- outline and detail systems design,
- leading to programming,
- testing and
- user acceptance.

The Reinsurance Manager is concerned with the service that the EDP system gives, the assistance it provides to help him function in a more efficient way and in the timing of the service. EDP has gone forward from this point to web based access and use.

With the simplest of arrangements in data processing which is using a PC to turn out word, excel or power point files and to send these via e-mail desktop to desktop is the most efficient method of communication, data sharing and data storage.

This facilitates complex data on risk proposals to be transmitted within seconds anywhere in the world and complete transactions with overseas contacts within the space of hours.

The above is the simplest assessment of communication for reinsurance. Add to this voice mail, teleconferencing and video conferencing one is never away from a face to face meeting across the world at any time!

Data processing, access to process data and data transfers introduce complex processing requirements based on networking with a mainframe in one part of the world with the network of offices connected to it and to each other through hardware arrangements like hubs and routers. This manageable complexity has given rise to intranet, extranet and back office applications.

Further, turnover in communication apart from being instantaneous has less paper work associated with it than through conventional means and electronic means to store and retrieve files and emails.

An organization can internally connect all its executives and offices through a private internet arrangement which is called `intranet`. While it will be possible to access the public internet through an intranet freely it is not possible to access an intranet facility except through password restricted access.

This restricted access has increased commercial opportunities to service providers who provide database access to their customers as an extension of the intranet to download and use certificates of insurance or to ascertain their own account balance status, etc. This access is called `extranet`.
Major and significant developments have occurred in terms of web based portals, online reinsurance exchanges and electronic data interchange (EDI). These have now permitted insurers and reinsurers to get to know each other through their websites and with such information confirmed by video / teleconferencing.

Once a business is finalized, electronic records are generated from information input made only once and which instantaneously pops up in technical, accounts and statistical departments. Statements rendered for confirmation to settle are followed up by EDI settlements and through online payments.

With reinsurance capacity being provided by traditional and capital markets the use of Communication and IT technology creates real time connectivity with customers and solutions are driven, so to say, by the speed of thought. Bill Gates, founder of Microsoft, called this the Digital Nervous System where everyone has access to data that enriches his job and performance.

Communication and Information Technology would be superior in processing volumes of data from worldwide operations in no time and make it available to intended users with accuracy and reliability. This real time availability of data is a powerful catalyst to performance and growth.

**Test Yourself 2**

An organization can internally connect all its executives and offices through a private internet arrangement. What term is used for such arrangement?

I. Internet  
II. Intranet  
III. Extranet  
IV. World wide web

**C. Organisation of reinsurance department**

The operation of an insurer or reinsurer is carried out through underwriters in his employ who interface with underwriters of other insurers and reinsurers directly or through brokers.

They are responsible for the acceptance of business and the profits made. At Lloyd’s Syndicates this position of the underwriter is clearly recognized with the Syndicate owner or his agent managing the administration and routines of the Syndicate.

In a corporate set up the volumes in business, number of personnel, multiple locations take away the focus from the critical role of the underwriter.
Regulators seek compliance for underwriter’s qualification as one with requisite experience and knowledge of the business. “The insurer shall ensure that decisions on acceptance of reinsurance business are made by persons with necessary knowledge and experience”.

Broadly, the organisation of a reinsurance department splits into:
- Underwriting
- Accounting
- Department Administration
- Information, Research and Statistics

Other support functions such as Personnel, Systems, General Administration, Publicity, etc. are assumed for the above departmental organization.

Example

An example of an organisation chart of a professional reinsurer- Swiss Re- at corporate level:

Diagram 1:
Whichever way one looks at an organization, the delegated authority permits decisions to be taken at many lower levels within the organization allowing it to turn out business all these levels.

By reason of delegation, responsibility is equally fixed for errors, omissions and negligence at each executive level. This is all the more important with reference to decisions being taken by underwriters.

The organisation for underwriting in an insurer with multiple locations can impact on monitoring. A decentralised approach may affect efficiency in monitoring and uniform implementation. A centralised approach may overcome these difficulties but may not be efficient in its reporting systems.

The key objective in organization is to attain the goal behind the underwriting philosophy through implementation and effective monitoring.

It is not unusual for regulators and investors to ascertain a current organizational chart, with a brief description of all members in the insurer’s system, including the primary business functions of each member. A brief description of how the insurer is controlled including a list of all principals and key personnel.

The identity of the party performing the underwriting functions for the insurer. If this function has been delegated, the manner of delegation and the relationship to the insurer.

A description of the underwriting and whether the insurer has procedures or processes in place for reviewing the business produced. Whether the insurer has accounting procedures or processes in place that provide timely updates?

Whether the insurer has procedures or processes in place for reviewing and accepting or denying claims? What are the controls used to accept or reject a potential policyholder. The answers to these questions impact the delegated authority.

**Test Yourself 3**

In a reinsurance company, who is responsible for the acceptance of business and the profits made?

I. Agents  
II. Brokers  
III. Underwriters  
IV. Regulators
Summary

a) An accurate and efficient information system helps in increasing credibility of the primary insurer and also in renewal of treaties.

b) Maintenance of accurate statistics relating to acceptances and their speedy and timely availability is vital for the successful conduct of reinsurance business.

c) The basic statistics relating to a treaty are collated from accounts statements as sent and received. Information can be processed from these basic statistics for any type of review requirement considered important, including an assessment of cash flows.

d) Review of acceptances is to be done periodically and in any case at least one major review must be done in a year. Such review is important and part of the duties of executives in charge of underwriting and administration.

e) If there is a reciprocal exchange, all the business exchanged with the insurer or reinsurer is summarised in a sheet, showing cessions on one side and matching acceptances on the other side.

f) The statistical summary helps in assessment of historical exchange of results and impact of changes in the rate of exchange upon these results.

g) In reviewing excess of loss reinsurance, due regard is paid to check the validity of assumptions made while making the acceptance regarding GNPI, exposures involved, adequacy of rate, etc.

h) Accumulation hazards form an inherent part of reinsurance business and careful control is required to be maintained on exposures due to earthquake, storms, tornados and other catastrophic perils in different parts of the country and the world.

i) Both ceding insurers and reinsurers need periodical statistics of their business for decision making and review purposes. Review of past trends for renewal of the reinsurance business depends on statistics which must be reconciled with reinsurance accounts.
Answers to Test Yourself

Answer 1

The correct answer is II.

In case of reciprocal exchange, all business exchanged with the insurer or reinsurer is summarised in a sheet, showing cessions on one side and matching acceptances on the other side.

Answer 2

The correct option is II.

An organization can internally connect all its executives and offices through a private internet arrangement known as Intranet.

Answer 3

The correct answer is III.

In a reinsurance company, an underwriter will be responsible for the acceptance of business and the profits made.

Self-Examination Questions

Question 1

ABC ltd provides database access to their customers as an extension of the intranet to download and use certificates of insurance or to ascertain their own account balance status, etc. This access is known as

I. Internet
II. Intranet
III. Extranet
IV. World wide web

Question 2

The basic statistics relating to a treaty are collated from___________ as sent and received.

I. Bank statements
II. Financial statements
III. Account statements
IV. Actuarial data
**Question 3**

While preparing summary sheet in the case of reciprocal exchange, which of the following information is not included?

I. Adequacy of rate  
II. Commissions  
III. Incurred claims  
IV. Net results

**Question 4**

The magnitude of an earthquake is measured on the _____________.

I. Richter scale  
II. Beaufort scale  
III. Moment magnitude scale  
IV. Modified magnitude scale

**Question 5**

Which of the following is an example of a ‘high risk’ area due to frequent occurrence of bush fires?

I. The USA  
II. Europe  
III. Japan  
IV. Australia

**Answers to Self-Examination Questions**

**Answer 1**

The correct option is III.

ABC ltd provides database access to their customers as an extension of the intranet to download and use certificates of insurance or to ascertain their own account balance status, etc. This access is known as extranet.

**Answer 2**

The correct option is III.

The basic statistics relating to a treaty are collated from account statements as sent and received.
Answer 3

The correct option is I.

In a summary sheet that is prepared for reciprocal exchange information, adequacy of rate is not included.

Answer 4

The correct option is I.

The magnitude of an earthquake is measured on the Richter scale.

Answer 5

The correct option is IV.

Australia is an example of an area that is categorised as high risk due to frequency occurrence of ‘bush fires’.
APPENDICES

A. Glossary of Reinsurance Terms
B. IRDA Regulations
C. Calculation of Solvency Margins - Life Business,
D. Calculation of Solvency Margins - Non-Life Business,
E. Credit Rating Definitions - S&P and A.M.Best
Appendix I - Glossary of Reinsurance Terms

Acquisition Cost
All expenses incurred by an insurance or reinsurance insurer which are directly related to acquiring business.

Administration Expense
Costs of running a business other than acquisition cost and settling claims.

Admitted Insurance or Reinsurance
Insurance from an insurer who is licensed to do business in India or a given country. Reinsurance from a reinsurer who is licensed or approved to do business in India or a given country.

Adverse Selection
The submission by a reinsured to his reinsurer of those risks, segments of risks or Coversages that are less attractive for retention by the reinsured.

Agency Reinsurance
A contract of reinsurance that is confined to business produced by a named agent of the insurer generated by that agent and administered directly with the reinsurer as allowed by the insurer. While there are other reasons for such practice, the facility allows an agent to issue larger policies than his insurer would otherwise restrict. Usually, agency reinsurance is written on pro-rata basis for property or other first-party insurances.

Aggregate Excess
The reinsurer indemnifies the reinsured for an cumulative amount of losses in excess of a specified aggregate amount.

Alternative Risk Financing
Use of the capacity available on the capital markets to cover insurance risks, e.g. through the securitization of natural catastrophe risks.

Anniversary
This is the date for renewal of a contract whether the contract actually expires or is continuous. The date is usually twelve months from the effective date of the contract. In provisions dealing with run-off of contracts the anniversary date is that of the underlying policies and not the reinsurance contract.

Arbitration Clause
A clause in reinsurance treaties whereby the parties agree to submit any dispute or controversy to mutually agreed arbitrators including an umpire in lieu of those provided as per process of law. Although the wording of the clause may vary it provides for the decision of a majority of the arbitrators to be binding on the parties to the reinsurance treaty.
“As If”
This is a method for recalculation of prior years of reinsurance experience to demonstrate what the underwriting results of a particular program would have been if the proposed program had been “as if” in force during that period.

Assume (also Accept)
Accept all or part of a reinsured’s insurance or reinsurance on a risk or exposure through various forms of reinsurance.

Balance
The ratio between written premium under a treaty and the maximum limit of liability to which the reinsurer is exposed. The ratio will vary from treaty to treaty. If the ratio desired for a specific treaty is achieved the treaty is referred to as “balanced.”

Binder
A record of reinsurance arrangements pending the issuance of a formal reinsurance contract which then replaces the binder.

Bordereaux
A detailed report of insurance premiums and losses policy-wise as submitted by a reinsured to his reinsurer. Bordereaux reporting is usually done in respect of pro rata reinsurance arrangements. In contemporary practice bordereaux form of reporting is dispensed with an substituted by summary reports.

Broker
An intermediary who negotiates contracts of reinsurance on behalf of the reinsured, while receiving commission for placement and other services from the reinsurer.

Burning Cost
The ratio of actual past losses to their corresponding premium (written or earned) for the same period. This ratio is used in assessing a portfolio of business and in determining rate of premium for renewal. This can also be termed as experience rating.

Capacity
Conceptually it is a measure of an insurer’s capability to accept a level of risk as proposed. Another measure of this capability is in the maximum volume of insurance (or reinsurance) business that an insurer is prepared to accept.

Cash Loss
It is a provision common in proportional contracts which facilitate a reinsured to make a claim and receive immediate settlement for a large loss outside of the usual periodic accounting and settlement procedures.
Catastrophe Reinsurance
This is a type of excess of loss reinsurance which indemnifies a reinsured for accumulation of losses from a catastrophic event in excess of a specified retention. This is more commonly referred to as "a catastrophe cover."

Cedant
This is another way to refer to the reinsured or ceding insurer.

Cede
This is a decision to pass on to a reinsurer all or part of the financial interests by the reinsured with the object of reducing the possible liability from the insurance policies as written.

Claims Made Basis
The provision in a contract of insurance or reinsurance that coverage applies only to losses which occur and claims for which are made during the period a policy is in force.

Closing Particular
Final advice on full particulars of risk for which placement with reinsurers is completed.

Commission
Agent’s Commission - A percentage of premium paid to an agent for insurance placement services.
Brokerage - A percentage or a fee paid to a broker for insurance or reinsurance placement services.
Ceding Commission - A percentage of the reinsurance premium paid by the reinsurer for part or all of a reinsured’s acquisition cost and administration expense. The ceding commission may also include an element of profit to the reinsured.
Overriding Commission -
   a) An incremental commission paid on a retrocession of a reinsurance.
   b) Paid to compensate an existing agent for premium volume produced by other agents in a given geographic territory

Commutation Clause
A clause which provides for complete discharge of all obligations, including future obligations, between the reinsured and his reinsurer by an estimated settlement of all losses incurred and outstanding.

Cover Note
This is a statement in writing indicating that coverage is in place. In reinsurance this is also evidenced by the Slip.
Cut-Through Clause
This clause provides that in the event of the reinsured's insolvency any part of a loss covered by reinsurance be paid directly to the original insured by the reinsurer. This is an exception to the legality of privity of contract.

Deposit Premium
This arises when the actual premium awaits the outcome of the completion of the treaty or contract period. At inception the reinsurer therefore receives premium as a deposit subject to its adjustment on completion of treaty or contract period.

Direct Written Premium
This is all the premium income of an insurer, adjusted for additional or return premiums, prior to any reinsurance ceded or reinsurance assumed.

Earned Premium
The premium which is proportionate to the period of insurance or reinsurance which has expired and for which there would be no further obligation to entertain any claim in future.

Excess of Loss Reinsurance
A type of reinsurance which indemnifies the reinsured against all or a part of the amount of a loss in excess of specified loss retention. This type of reinsurance is also known as Non-Proportional Reinsurance.

Expiration
This is cessation of cover if not renewed following the anniversary date. A treaty written on a "continuous until cancelled" basis does not expire automatically. This would need to be looked at for a cancellation provision.

Facultative Reinsurance
The reinsurance of part or all of the insurance provided by a single policy for indemnity based upon sharing of risk given the reinsured's retention. The word "facultative" means that both parties have an option or faculty to accept or reject the negotiated submission of an individual risk.

Facultative Treaty
A reinsurance contract under which the ceding insurer has the option to cede and the reinsurer has the option to accept or decline individual risks. The contract describes how individual facultative reinsurances shall be handled.

Flat Rate
A fixed rate not subject to any subsequent adjustment. A reinsurance premium rate applicable to the entire premium income derived by the ceding insurer from the business ceded to the reinsurer (as distinguished from a rate applicable to excess limits).
Follow the Fortunes
A concept inherent in any reinsurance relationship which, when expressed in an agreement, generally runs to a statement that the reinsurer "shall follow the fortunes of the ceding insurer in all matters falling under this Agreement" or shall do so ". In all respects as if being a party to the insurance," or similar language.

Fronting
An arrangement whereby one licensed insurer issues a policy on a risk for and at the request of one or more other unlicensed insurers with the intent of passing the entire risk by way of reinsurance to the other insurer(s). Such an arrangement may be illegal if the purpose is to frustrate regulatory requirements

Gross Line
The amount of liability an insurer has written on a risk, including the amount it has reinsured. Net line plus reinsurance equals gross line.

Gross Loss
The amount of a ceding insurer's loss irrespective of any reinsurance recoveries due.

Ground-Up Loss
In insurance, the gross amount of loss occurring to an insured and subject to the insured's insurance policy, beginning with the first dollar of loss and prior to the application to the deductible or deduction, if any, required by the policy. In reinsurance, the term refers to the gross amount of loss occurring to the reinsured, beginning with the first dollar of loss and after the application of deductions required by the reinsurance agreement (which can be several in number): a) the reinsured's retention in excess of loss covers: b) other insuring reinsurance says, such as quota share, surplus share, per risk excess, facultative, or common account coverage: or c) the uncollectibility of any reinsurances. For example, ground-up losses subject to a per risk excess treaty protecting the reinsured's net retention would equal the net loss beginning with the first dollar after reduction of the gross loss by recoveries from other treaties such as surplus covers and facultative placements, but before the application of the deductible in the per risk excess cover itself.

Hard Market
A scarcity of a product or service for purchase, as opposed to a soft market, in which the product or service is available readily and easy to buy. In reinsurance, a hard market is characterized by prudent underwriting and adequate pricing, whereas a soft market reflects sloppy underwriting and deficient pricing.
Hours Clause
The colloquial term which limits the time period during which claims resulting from a given occurrence may be included as part of the loss subject to the cover. The time period is usually measured in consecutive hours and most often applies to property reinsurance, e.g., a windstorm, conflagration, or earthquake, and less frequently in occupational disease and other aspects of casualty.

Incurred But Not Reported (IBNR)
The liability for future payments on losses which have already occurred but have not yet been reported in the reinsurer’s records. This definition may be extended to include expected future development on claims already reported. Thus, technically IBNR covers the field from a) those individual losses that have occurred but have not been reported to the insurer or reinsurer to b) that amount of loss that may arise from a known loss which has been reported as an event but which has not been recorded in full to its ultimate loss value (known as loss development).

Insolvency Clause
A provision now appearing in most re-insurance contracts (because many states require it) stating that the reinsurance is payable, in the event the reinsured is insolvent, directly to the insurer or its liquidator without reduction because of its insolvency or because the insurer or its liquidator has failed to pay all or a portion of any claim.

Intermediary Clause
A provision in a reinsurance contract which identifies the specific intermediary or broker involved in negotiating the contract, communicating information, and transmitting funds. The clause should state clearly whether payment to the broker does or does not constitute payment to the other party of the reinsurance contract. Currently a widely used clause provides that payments by the reinsured insurer to the intermediary shall be deemed to constitute payment to the reinsurer(s) and that payments by the reinsurer(s) to the intermediary shall be deemed to constitute payment to the reinsured insurer only to the extent that such payments are actually received by the reinsured insurer.

Jurisdiction Clause
A clause inserted in a treaty wording defining the laws under which any dispute shall be resolved.

Law of Large Numbers
A mathematical concept which postulates that the more times an event is repeated (in insurance, the larger the number of homogeneous exposure units), the more predictable the outcome becomes. In a classic example, the more times one flips a coin, the more likely that the results will be 50% heads, 50% tails.
Layer
The total amount of excess of loss reinsurance protection which an insurer needs to protect a given set of exposures is usually not written in one contract. Instead, the total amount is split into pieces or layers and separate contracts are written which fit on top of each other and have similar or identical terms but separate limits which sum to the total amount required. Each of the separate contracts in the series is called a layer or level in the total program.

Lead (or Leading) Underwriter
The individual (or organization) with a major role in negotiating the terms and conditions of a reinsurance cover and whose reputation and standing are such that other underwriters respect his or her ability, skills, and judgment and will often follow the terms and conditions set by the lead without further negotiation.

Limits
The maximum amounts of interest insured. The word can be used to describe a cedant’s retention, a cedant’s gross capacity or the maximum amount which may be reinsured under a reinsurance contract.

Line
Either the limit of insurance to be written which an insurer has set for itself on a class of risk (line limit), or the actual amount which it has accepted on a single risk or other unit.

A class or type of insurance (fire, marine, or casualty, among others), also known as Line of Business.

Long-Tail Liability
A term used to describe certain types of third-party liability exposures (e.g., malpractice, products, errors and omissions) where the incidence of loss and the determination of damages are frequently subject to delays which extend beyond the term the insurance or reinsurance was in force. An example would be contamination of a food product which occurs when the material is packed but which is not discovered until the product is consumed months or years later.

Losses Outstanding
Losses (reported or not reported) which have occurred but have not been paid.

Losses occurring basis
A system utilized in excess of loss insurance whereby the reinsurer is responsible for all claims occurring during the currency of the treaty without reference to the period of the original policies.

Losses Paid
The amounts paid to claimants as insurance claim settlement.
Loss Ratio
Losses incurred expressed as a percentage of earned premiums.

Loss Ratio Stabilising Clause
See “Stop Loss Reinsurance”

Loss Reserve
For an individual loss, an estimate of the amount the insurer expects to pay for the reported claim. For total losses, estimates of expected payments for reported and unreported claims. May include amounts for loss adjustment expenses.

Net Line
The amount of insurance the primary insurer carries on a risk after deducting reinsurance from its "gross" line.

Net Retained Lines Clause
Explains that the loss subject to the reinsurance agreement is net of all other reinsurances, whether collectible or not, as well as net of salvages and all other reinsurance recoveries due the reinsured.

Obligatory Treaty
A reinsurance contract (usually pro rata) under which the subject matter business must be ceded by the ceding insurer in accordance with contract terms and must be accepted by the reinsurer.

Occurrence
In a non-insurance sense, an incident, event or happening. In insurance, the term may be defined as continual, gradual, or repeated exposure to an adverse condition which is neither intended nor expected to result in injury or damage, as contrasted with an accident which is a sudden happening.

Offset
To reduce the amount owed by one party to a second party under one agreement or transaction by crediting the first party with amounts the second party owes the first party under other agreements or transactions for the purpose of determining the amount, if any, the first party owes to the second. The use of "offset" as a verb and "setoff" as a noun has been consistently used in federal bankruptcy statutes since the first bankruptcy act was enacted in 1800.

Original Conditions
A term used in both treaty and facultative reinsurance which incorporates by reference all of the terms (as well as amendments, modifications, alteration, and waivers) of the original policy written by the insurer that are not modified in the reinsurance contract, i.e., the location of the property and the rate, among others.
Original Insurer
The insurer which writes a policy for a policyholder (which may or may not create the need for reinsurance).

Original Policy
The policy written by the original insurer.

PML
The anticipated maximum property fire loss that could result, given the normal functioning of protective features (firewalls, sprinklers, a responsive fire department, etc.) as opposed to MFL (Maximum Foreseeable Loss), which would be a similar valuation, but on a worst case basis with respect to the functioning of the protective features. Underwriting decisions would typically be influenced by PML evaluations, and the amount of reinsurance ceded on a risk would normally be predicated on the PML valuation.

Pool
Any joint underwriting operation of insurance or reinsurance in which the participants assume a predetermined and fixed interest in all business written. Pools are often independently managed by professionals with expertise in the classes of business undertaken, and the members share in the premiums, losses, expenses, and profits. An “association” and a “syndicate” (excluding that of Lloyd's of London) are both synonymous with a pool, and the basic principles of operation are much the same.

Portfolio
A defined body of a) insurance (policies) in force (known as a premium portfolio), b) outstanding losses (known as a loss portfolio), or c) insurer investments (known as an investment portfolio). (The reinsurance of all existing insurance as well as new and renewal business is therefore described as a running account reinsurance with portfolio transfer or assumption.)

Portfolio Runoff
Continuing to reinsure a portfolio until all ceded premium is earned, or all losses are settled, or both. While a loss runoff is usually unlimited as to time, a premium runoff can be for a specified duration.

Portfolio Transfer
The transfer of in-force insurance liability from an insurer to a reinsurer (or vice versa) by the payment of the unearned premium reserve on those policies alone, or the concurrent transfer of liability for outstanding losses under those policies by the payment of the outstanding loss reserve from the insurer to the reinsurer (or vice versa). The former is a premium portfolio, the latter a loss portfolio.
**Professional Reinsurer**
A term used to designate an organization whose business is mainly reinsurance and related services, as contrasted with other insurance organizations which may operate reinsurance assuming departments in addition to their basic primary insurance business.

**Profit Margin**
As a pricing factor (along with expenses and losses), the return the reinsurer expects from the degree of net risk taken. As with any investment, the reinsurer expects a larger return from risky than safe investments.

**Pro Rata Reinsurance**
A generic term describing quota share and surplus share reinsurance in which the reinsurer shares a proportional part of the ceded insurance liability, premiums, and losses of the ceding insurer.

**Quota-Share Reinsurance**
A form of pro rata reinsurance (proportional) in which the reinsurer assumes an agreed percentage of each insurance being reinsured and shares all premiums and losses accordingly with the reinsured.

**Reciprocity**
The mutual exchanging of reinsurance, often in equal amounts, from one party to another, the object of which is to stabilize overall results.

**Reinstatement**
The restoration of the reinsurance limit of an excess property treaty to its full amount after payment by the reinsurer of loss as a result of an occurrence.

**Reinsuring Clause**
Language that describes the coverage agreed upon by the parties, i.e., what is covered and when. The key components are three: the indemnity aspect of the agreement, the type of business covered, and the method of determining whether a loss falls within the scope of the agreement. Also known as Cover Clause, Business Reinsured Clause, and Application of Agreement Clause.

**Retention**
The amount of insurance liability (in pro rata, for participation with the reinsurer) or loss (in excess of loss, for indemnity of excess loss by the reinsurer) which an insurer assumes (or retains) for its own account.

**Retrocession**
The reinsuring of reinsurance. Retrocession is a separate contract and document from the original reinsurance agreement between a primary insurance insurer (as the reinsured) and the original reinsurer.
Retrocessionnaire
The assuming reinsurer in a retrocession, where the ceding reinsurer is known as the retrocedent.

Risk Based Capital
The amount of capital needed to absorb the various risks of operating an insurance business. For example, a higher risk business requires more capital than one with lower risks. The calculation is intended to be unique to each insurer.

Run-Off Cancellation or Termination
A provision in the termination clause (or endorsement) of a reinsurance contract stipulating that the reinsurer shall remain liable for loss under reinsured policies in force at the date of termination, as a result of occurrences taking place after the date of termination, until their natural expiry (and often that the run-off period may not exceed twelve months from the date of termination).

Setoff
The reduction of the amount owed by one party to a second party under one agreement or transaction by crediting the first party with amounts the second party owes the first party under other agreements or transactions for the purpose of determining the amount, if any, the first party owes to the second.

Sliding Scale Commission
A contractual formula used in pro rata treaty reinsurance under which the ultimate ceding commission payable varies inversely to the loss ratio, within stated parameters. In effect, a retroactive pricing mechanism for pro rata reinsurance.

Slip
Document setting out the risk particulars, terms and conditions for which reinsurance protection is sought directly or through a broker.

Solvency Margin
The excess of assets over liabilities as determined in compliance with law and regulation to demonstrate an insurer’s ability to carry on business.

Stop-Loss Reinsurance
A form of excess of loss reinsurance which indemnifies the reinsured against the amount by which the reinsured's losses incurred (net after specific reinsurance recoveries) during a specific period (usually twelve months) exceed either an agreed amount or an agreed percentage of some other business measure, such as aggregate net premiums over the same period or average insurance in force for the same period. This form of reinsurance is also known as stop-loss reinsurance, stop-loss-ratio reinsurance, or excess of loss ratio reinsurance.
Surplus Reinsurance
A form of pro rata reinsurance indemnifying the ceding insurer against loss to the extent of the surplus insurance liability ceded, on a share basis similar to quota share. Essentially, this can be viewed as a variable quota share contract wherein the reinsurer's pro rata share of insurance on individual risks will increase as the amount of insurance increases, given the same reinsurer's retained line, in order that the primary insurer can limit its net exposure to one line, regardless of the amount of insurance written.

Surplus Treaty
A term exclusive to pro rata reinsurance treaties which defines the amount of each cession as the amount of gross (policy) liability which exceeds, or is "surplus" to, an agreed net liability retention, up to the limit of (reinsurance) liability.

Syndicate
An association of individuals or organizations to pursue certain insurance objectives. For example, individual underwriters in Lloyd's of London associate in separate syndicates to write marine insurance, reinsurance, life insurance, etc., entrusting the administrative details of each syndicate to a syndicate manager.

Treaty
A reinsurance agreement between the reinsured insurer and the reinsurer, usually for one year or longer, which stipulates the technical particulars applicable to the reinsurance of some class or classes of business. Reinsurance treaties may be divided into two broad classifications: a) the participating type, which provides for sharing by reinsured and reinsurer of insurance policy liability, premiums, and losses; and b) the excess type, which provides for indemnity by the reinsurer only for loss which exceeds some specified predetermined amount.

Uberrimae Fidei
Literally, of the utmost good faith. A defining characterization or quality of some (contractual) relationships, of which reinsurance is universally recognized to be. Among other differences from ordinary relationships, the nature of reinsurance transactions is dependent upon a mutual trust and a lively regard for the interests of the other party, even if inimical to one's own. A breach of utmost good faith, especially in regard to full and voluntary disclosure of the elements of risk of loss, is accepted as grounds for any necessary reformation or redress, including rescission.

Ultimate Net Loss
In reinsurance, the unit of loss to which the reinsurance applies, as determined by the reinsurance agreement. In other words, the gross loss less any recoveries from other reinsurance which reduce the loss to the treaty in question. In liability insurance, the amount actually paid or payable for the settlement of a claim for which the reinsured is liable (including or excluding defense costs), after deductions are made for recoveries and certain specified reinsurance.
Underlying
The amount of loss which attaches before the next higher excess layer of
insurance or reinsurance attaches.

Underwriting Year Experience
Simplistically, the segregation of all premiums and losses attributable to
policies having an inception or renewal date within a given twelve-month
period.

Underwriting-Year Basis
In rating, the use of all premiums written as arising from all policies written or
renewed during the year and all losses - relating to those same policies,
whenever they may occur.

Unearned Premium Reserve
The sum of all the premiums representing the unexpired portions of the policies
or contracts which the insurer or reinsurer has on its books as of a certain date.
It is usually based on a formula of averages of issue dates and the length of
term.

Utmost Good Faith
Firm adherence to promises made to another, including disclosure of all
relevant facts, and complete trust in the fidelity of the other. *Black's Law
Dictionary* states: "The most abundant good faith, absolute and perfect candor,
openness and honesty; the absence of any concealment or deception, however
slight."

Working Excess
A contract covering a type of excess reinsurance (per risk) in which loss
frequency is anticipated, as opposed to loss severity. Thus, a working cover
would usually have a low indemnity and would attach above a relatively low
retention.
Appendix II A

(Note: For the updated version of these regulations please visit IRDA website)

INSURANCE REGULATORY AND DEVELOPMENT AUTHORITY
(Life Insurance - Reinsurance) Regulations, 2000

NOTIFICATION

New Delhi, the 22nd December, 2000

File No. IRDA/REG/12/2000.--In exercise of the powers conferred by section 114A of the Insurance Act, 1938, read with sections 14 and 26 of the Insurance Regulatory and Development Authority Act, 1999, the Authority, in consultation with the Insurance Advisory Committee hereby makes the following regulations, namely:

1. Short title and commencement.—(1) These regulations may be called the Insurance Regulatory and Development Authority (Life Insurance - Reinsurance) Regulations, 2000.

(2) They shall come into force on the date of their notification in the Official Gazette.

2. Definitions. ---In these regulations, unless the context otherwise requires:

(a) ‘Act’ means the Insurance Act 1938 (4 of 1938);
(b) ‘Authority’ means the Insurance Regulatory and Development Authority established under subsection (1) of Section 3 of the Insurance Regulatory and Development Authority Act 1999 (41 of 1999);
(c) ‘retention’ means the amount of risk which an insurer assumes for his own account.
(d) Words and expressions used and not defined in these regulations but defined in the Insurance Act, 1938 (4 of 1938) or Insurance Regulatory and Development Authority Act, 1999 (41 of 1999), shall have the meanings respectively assigned to them in those Acts as the case may be.

3. Procedure to be followed for reinsurance arrangements.—(1) Every life insurer shall draw up a programme of reinsurance in respect of lives covered by him.

(2) The profile of such a programme, duly certified by the Appointed Actuary, which shall include the name(s) of the reinsurer(s) with whom the insurer proposes to place business, shall be filed with the Authority, at least forty five days before the commencement of each financial year, by the insurer. Provided that the Authority may, if it considers necessary, elicit from the insurer any additional information, from time to time, and the insurer shall furnish the same to the Authority forthwith.
(3) The Authority shall scrutinise such a programme of reinsurance as referred to in sub-regulation (2), and may suggest changes, if it consider necessary, and the insurer shall incorporate such changes forthwith in his programme.

(4) Every insurer shall retain the maximum premium earned in India commensurate with his financial strength and volume of business.

(5) The reinsurer, chosen by the insurer, shall enjoy a credit rating of a minimum of BBB of Standard and Poor or equivalent rating of any international rating agency:

Provided that placement of business by the insurer with any other reinsurer shall be with the prior approval of the Authority.

Provided further that no programme of reinsurance shall be on original premium basis unless the Authority approves such programme.

Provided further that no life insurer shall have reinsurance treaty arrangement with its promoter insurer or its associate/group insurer, except on terms which are commercially competitive in the market and with the prior approval of the Authority, which shall be final and binding.

(6) Every insurer shall submit to the Authority statistics relating to its reinsurance transactions in such forms as it may specify, together with its annual accounts.

Inward Reinsurance Business,----

A) Every insurer who wants to write inward reinsurance business shall adopt a well-defined underwriting policy for underwriting inward reinsurance business.

B) An insurer shall ensure that decisions on acceptance of reinsurance business are made by persons with adequate knowledge and experience, preferably in consultation with the insurer’s appointed actuary.

C) An insurer shall file with the Authority, at least forty five days before the commencement of each financial year, a note on its underwriting policy indicating the classes of business, geographical scope, underwriting limits and profit objective.

D) An insurer shall also file any changes to the note referred to in sub-regulation (3) as and when a change in underwriting policy is made.
F.No.IRDA/Reg./7/2000.--

In exercise of the powers conferred by section 114A of the Insurance Act, 1938, sections 14 and 26 of the Insurance Regulatory and Development Authority Act, 1999, the Authority, in consultation with the Insurance Advisory Committee, hereby makes the following regulations, namely:

1. Short title and commencement:

   (1) These regulations may be called the Insurance Regulatory and Development Authority (General Insurance - Reinsurance) Regulations, 2000.

   (2) They shall come into force on the date of their notification in the Official Gazette.

2. Definitions:

   In these regulations, unless the context otherwise requires:

   a) ‘Act’ means the Insurance Regulatory and Development Authority Act 1999 (41 of 1999);

   b) ‘Authority’ means the Insurance Regulatory and Development Authority established under sub-section (1) of Section 3 of the Act;

   c) ‘cession’ means the unit of insurance passed to a reinsurer by the insurer which issued a policy to the original insured and, accordingly, a cession may be the whole or a portion of single risks, defined policies or defined divisions of business, as agreed in the reinsurance contract;

   d) ‘facultative’ means the reinsurance of a part or all of a single policy in which cession is negotiated separately and that the reinsurer and the insurer have the option of accepting or declining each individual submission;
e) ‘Indian re-insurer’ means an insurer who carries on exclusively reinsurance business and is approved in this behalf by the Central Government;

f) ‘pool’ means any joint underwriting operation of insurance or reinsurance in which the participants assume a predetermined and fixed interest in all business written.

g) ‘retrocession’ means the transaction whereby a reinsurer cedes to another insurer or reinsurer all or part of the reinsurance it has previously assumed;

h) ‘retention’ means the amount which an insurer assumes for his own account. In proportionate contracts, the retention may be a percentage of the policy limit. In excess of loss contracts, the retention is an amount of loss;

i) ‘treaty’ means a reinsurance arrangement between the insurer and the reinsurer, usually for one year or longer, which stipulates the technical particulars and financial terms applicable to the reinsurance of some class or classes of business;

j) Words and expressions used and not defined in these regulations but defined in the Insurance Act, 1938 (4 of 1938) or the General Insurance Business Nationalisation Act, 1972 (57 of 1972) or Insurance Regulatory and Development Authority Act, 1999 (41 of 1999), rules made thereunder shall have the meanings respectively assigned to them in those Acts or rules as the case may be.

CHAPTER II

3. PROCEDURE TO BE FOLLOWED FOR REINSURANCE ARRANGEMENTS

(1) The Reinsurance Programme shall continue to be guided by the following objectives to:

a) maximise retention within the country;

b) develop adequate capacity;

c) secure the best possible protection for the reinsurance costs incurred;

d) simplify the administration of business.

(2) Every insurer shall maintain the maximum possible retention commensurate with its financial strength and volume of business. The Authority may require an insurer to justify its retention policy and may give such directions as considered necessary in order to ensure that the Indian insurer is not merely fronting for a foreign insurer.

(3) Every insurer shall cede such percentage of the sum assured on each policy for different classes of insurance written in India to the Indian reinsurer as may be specified by the Authority in accordance with the provisions of Part IVA of the Insurance Act, 1938.
The reinsurance programme of every insurer shall commence from the beginning of every financial year and every insurer shall submit to the Authority, his reinsurance programmes for the forthcoming year, 45 days before the commencement of the financial year;

Within 30 days of the commencement of the financial year, every insurer shall file with the Authority a photocopy of every reinsurance treaty slip and excess of loss cover covernote in respect of that year together with the list of reinsurers and their shares in the reinsurance arrangement;

The Authority may call for further information or explanations in respect of the reinsurance programme of an insurer and may issue such direction, as it considers necessary;

Insurers shall place their reinsurance business outside India with only those reinsurers who have over a period of the past five years counting from the year preceding for which the business has to be placed, enjoyed a rating of at least BBB (with Standard & Poor) or equivalent rating of any other international rating agency. Placements with other reinsurers shall require the approval of the Authority. Insurers may also place reinsurances with Lloyd’s syndicates taking care to limit placements with individual syndicates to such shares as are commensurate with the capacity of the syndicate.

The Indian Reinsurer shall organise domestic pools for reinsurance surpluses in fire, marine hull and other classes in consultation with all insurers on basis, limits and terms which are fair to all insurers and assist in maintaining the retention of business within India as close to the level achieved for the year 1999-2000 as possible. The arrangements so made shall be submitted to the Authority within three months of these regulations coming into force, for approval.

Surplus over and above the domestic reinsurance arrangements class wise can be placed by the insurer independently with any of the reinsurers complying with sub-regulation (7) subject to a limit of 10% of the total reinsurance premium ceded outside India being placed with any one reinsurer. Where it is necessary in respect of specialised insurance to cede a share exceeding such limit to any particular reinsurer, the insurer may seek the specific approval of the Authority giving reasons for such cession.

Every insurer shall offer an opportunity to other Indian insurers including the Indian Reinsurer to participate in its facultative and treaty surpluses before placement of such cessions outside India.
(11) The Indian Reinsurer shall retrocede at least 50% of the obligatory cessions received by it to the ceding insurers after protecting the portfolio by suitable excess of loss covers. Such retrocession shall be at original terms plus an over-riding commission to the Indian Reinsurer not exceeding 2.5%. The retrocession to each ceding insurer shall be in proportion to its cessions to the Indian Reinsurer.

(12) Every insurer shall be required to submit to the Authority statistics relating to its reinsurance transactions in such forms as the Authority may specify, together with its annual accounts.

4. Inward Reinsurance Business

Every insurer wanting to write inward reinsurance business shall have a well-defined underwriting policy for underwriting inward reinsurance business. The insurer shall ensure that decisions on acceptance of reinsurance business are made by persons with necessary knowledge and experience. The insurer shall file with the Authority a note on its underwriting policy stating the classes of business, geographical scope, underwriting limits and profit objective. The insurer shall also file any changes to the note as and when a change in underwriting policy is made.

5. Outstanding Loss Provisioning

(1) Every insurer shall make outstanding claims provisions for every reinsurance arrangement accepted on the basis of loss information advices received from Brokers/ Cedants and where such advices are not received, on an actuarial estimation basis.

(2) In addition, every insurer shall make an appropriate provision for incurred but not reported (IBNR) claims on its reinsurance accepted portfolio on actuarial estimation basis.

N. RANGACHARY,
Chairperson
Appendix II C

020/NL/IRDA/06 15th Sep ‘06.

To

CEOs of All Insurance Companies &
The Principal Officers of All Broking Companies

GUIDELINES ON INSURANCE AND REINSURANCE OF GENERAL INSURANCE RISKS

With the abolition of tariffs in the near future, competition will extend not only to service matters but also to pricing of products. In order to ensure that the business is transacted along proper lines, it is important to set out the rules of conduct that should be followed by both insurers and brokers in the matter of insurance and reinsurance of general insurance risks, especially those with high sums insured.

Insurers are advised to ensure that the procedures as set out in these guidelines note are followed in their competition for business.

Attention of all licensed brokers is invited to the Code of Conduct specified in Schedule III of the IRDA (Insurance Brokers) Regulations 2002 and in particular, para 1 of the Code of Conduct. All brokers are hereby required to ensure strict adherence to the practice stated in this guidelines note and in the Code of Conduct. Prior approval of IRDA should be obtained by application supported by valid reasons for any variations from the practice stated here.

1. Where a client invites more than one broker to submit terms for its insurance requirement:

   a) A broker shall not block capacity with one or more insurers in anticipation of being invited to quote terms for insurance requirements of a client, where the client has not yet decided as to which brokers should be invited to quote terms.

   b) Once the client has selected the brokers who should be invited to quote terms, all other brokers should withdraw from the market. They should also immediately advise any insurers with whom they have been in touch to propose terms, about their not being invited to quote terms.

   c) Brokers who are invited to quote terms should obtain a written appointment letter to develop terms. Where the client has given oral instructions to quote, the broker should record the fact of its being invited to quote terms, in a letter to the client. (Refer paras 2(f) and 2(h) of Code of Conduct).
d) Every broker invited to quote terms should fully comply with para 4 of the Code of Conduct. The broker should clearly distinguish between information provided by the client and information provided by the broker based on its own study of the risk.

e) Where the client has specified the terms of the insurance cover required by it, the broker shall develop terms on the basis specified by the client and not any other basis (which may be patched up without the knowledge of the client) to provide the required cover. However, it is open to the broker to discuss with the client and agree with the client to develop terms on any other basis.

f) It is open to the broker to ask more than one insurer to quote terms. The broker shall furnish full information on a common basis to all the insurers. This does not prevent the broker from providing supplementary information to an insurer in response to questions raised by that insurer.

g) Where an insurer is asked to quote terms by more than one broker in respect of the same risk, the insurer shall quote the same terms to all the brokers. However, if a broker seeks quotes from the insurer on a different basis, the insurer shall be free to quote terms on the basis requested by that broker without having to advise those terms to all the other brokers.

h) Where an insurer is approached by a broker to quote terms for a particular account, the insurer should not approach the client directly to quote terms and eliminate the broker.

i) Where a client has also asked an insurer to quote terms directly to it, the insurer may quote terms directly to the client and if any broker approaches it for terms, the insurer should inform the broker that it is quoting directly to the client.

j) Where terms are developed on a “net rate” basis, the broker shall advise the client the full facts, namely, the net rate and the addition made for brokerage.

k) Where the insurer needs to develop terms from the reinsurance markets before quoting its terms to the client, the insurer shall be free to use the services of any reinsurance broker of its choice.

l) A composite broker shall not go to the reinsurance markets to develop terms in respect of cases referred to in (k) above, without the written prior authorization of the insurer invited to quote terms for the insurance. Paras 2(i) and 2(j) of the Code of Conduct are relevant in this connection.
It is important to emphasise that placement of reinsurance is entirely within the purview of the insurer and neither the direct broker nor the client can direct the insurer where to place reinsurance and how much to reinsure. This does not prevent the client or the broker from enquiring about the insurer’s own retention on the risk and the reinsurances that it will place and the security rating of reinsurers to be used, as a part of its examination whether to accept the insurer for its insurance requirements.

m) Where reinsurance terms are developed as part of the process of quoting terms for direct insurance, the broker who is instructed to develop terms shall truthfully communicate to the insurer on whose behalf the reinsurance terms are developed, the basis of the quotation, the rates and terms and the list of reinsurers with written lines and the extent of likely support at those terms.

n) A composite broker or reinsurance broker shall not put conditions of minimum percentage of reinsurance placement as part of the quotation or allow such terms to be put in by the client or foreign co-broker or reinsurers. This does not prevent a lead reinsurer quoting terms subject to his being offered a minimum stated line on the risk. It shall be open to the insurer to instruct the broker not to offer the risk to a particular reinsurer or to specified reinsurers or specified markets.

o) A broker shall not put up terms developed within its own office (desk quotes) but not received from an insurer, as insurance premium terms. If a broker is responding to an enquiry about the likely insurance cost, it should make it clear when indicating the premium cost that it is not a quotation but only a non-binding indication of the likely cost.

2. Where a client retains one broker to develop terms from several insurers:

a) The broker shall select the insurers to be invited to quote terms, entirely from the point of view of the client and in the best interests of the client.

b) The broker shall provide information on a common basis to all insurers invited to quote. However, it may provide further clarifications or additional information in response to queries of an insurer that is invited to quote.

c) The broker shall not first develop terms from foreign markets and then go round locating insurers willing to front the business at those terms.

d) The broker shall not go round looking for insurers to be invited to quote terms, on the basis of a minimum reinsurance order as a condition of giving an opportunity to the insurer to write a share of the risk.
e) The terms put up to the client by the broker should include the original letters of quotation from the insurers and the recommendation of the broker should be properly documented with reasons in support of the recommendation.

3. Documentation and post-insurance servicing of the direct insurance client:

a) Once the direct insurance client gives orders to bind the cover, the broker should obtain a letter of cover or cover note or insurance policy from the insurer or insurers concerned and submit them to the client before commencement of risk.

b) The broker should ensure payment of premium in a timely manner in compliance with Sec 64VB of the Insurance Act. The broker should explain to the client, the importance of compliance with policy conditions and warranties by the client during the policy period. Where the insurer issues only a cover note or letter of cover, the broker should follow up for issue of the formal policy document without delay. The broker should scrutinize all these documents to ensure that they are in conformity with the terms and conditions quoted and accepted by the client. Likewise, the broker should ensure timely payment of reinsurance premium on any reinsurance placed through it and follow up for the formal reinsurance document in a timely manner.

4. Placement of facultative reinsurance:

a) A composite insurance broker or reinsurance broker shall not enter the reinsurance markets either to develop terms for reinsurance cover or to place reinsurance on any risk without the specific written authorization of the insurer insuring the risk or insurer who has been asked to quote terms for the risk.

b) A reinsurance broker or a composite broker shall not block reinsurance capacity in anticipation of securing an order to place reinsurance.

c) The broker shall provide to the insurer, a true and complete copy of the reinsurance placement slip to be used, before entering the market. The broker shall incorporate any modifications or corrections proposed by the insurer in the placement slip.

d) The broker shall put up to the insurer, all the terms (including the reinsurance commission and brokerage allowed) obtained by it from various reinsurers and indicate the share the lead reinsurer is willing to write at those terms and the expectation of the broker about placement of the required reinsurance at the terms quoted, with acceptable reinsurance security.
e) The broker shall furnish to the insurer, a true copy of the placement slip signed by the lead reinsurer quoting terms, indicating thereon, the signed line of the reinsurer.

f) Where reinsurance on a risk is proposed to be placed with different reinsurers at different terms, the fact that terms for all reinsurers are not uniform, shall be disclosed to reinsurers suitably.

g) Once the insurer has accepted the reinsurance terms quoted, the broker shall place the required reinsurance cover and shall keep the insurer informed about the progress of placement from time to time. In selecting the reinsurers to whom the risk is offered, the broker shall be mindful of the need to use only such reinsurers who are rated BBB or higher by a recognized credit rating agency, as required by Regulation 3(7) of IRDA (General insurance - reinsurance) Regulations 2000. Where the reinsurance is over-placed, the signing down shall be done in consultation with the insurer in a manner consistent with good market practice. The ceding insurer shall have the right to tell the broker not to use a specific market or reinsurer or reinsurers.

h) Immediately after completion of placement of reinsurance, the broker shall issue a broker’s cover note giving the terms of cover and the names of reinsurers and the shares placed with each of them. The cover note shall contain a listing of all important clauses and conditions applicable to the reinsurance and where the wordings of clauses are not market standard, the wordings to be used in the reinsurance contract shall be attached to the broker’s cover note.

i) The broker shall follow up the cover note by a formal signed reinsurance policy document or other acceptable evidence of the reinsurance contract signed by the reinsurers concerned, within one month of receipt of reinsurance premium.

j) The broker shall have a security screening procedure in-house or follow credit ratings given by recognized credit rating agencies and answer without any delay, any questions raised by the insurer about the credit rating of one or more reinsurers. Where the insurer declines to accept a particular reinsurer for whatever reason and asks the broker to replace the security before commencement of risk, the broker shall do so promptly and advise the insurer of the new reinsurer brought on the cover.

5. Placement of Treaty or Excess of Loss Reinsurance:

a) A composite insurance broker or reinsurance broker invited to place a proportional treaty shall prepare the treaty offer slip and supporting information with the cooperation of the insurer and secure the insurer’s concurrence to the slip and information before entering the market.
b) Where a reinsurance treaty is placed at different terms with different reinsurers, the fact that such is the practice shall be made known to all the reinsurers suitably.

c) Where a reinsurer accepts a share in a treaty subject to any condition, the conditions shall be made known to the ceding insurer and its agreement obtained before binding the placement.

d) The broker shall advise the progress of placement of the treaty from time to time. Immediately after completion of placement, the broker shall issue a cover note setting out the treaty terms and conditions and list of reinsurers with their shares. Where a treaty is over-placed, the broker shall sign down the shares in consultation with the insurer in a manner consistent with good market practice.

e) The broker shall secure signature of formal treaty wordings or other formal reinsurance contract documentation within three months of completion of placement.

f) The broker shall have a security screening procedure in-house or follow credit ratings given by recognized credit rating agencies and answer without any delay, any questions raised by the ceding insurer about the credit rating of one or more reinsurers. Where the insurer declines to accept a particular reinsurer for whatever reason and asks the broker to replace the security before commencement of the reinsurance period, the broker shall do so promptly and advise the insurer of the new reinsurer brought on the cover.

6. Handling of reinsurance monies:

Every broker shall abide by the provisions of Regulation 23 of the IRDA (Insurance Brokers) Regulations 2002.

7. Co-broking:

a) It is open to a client to appoint more than one broker to jointly handle the broking of its insurance requirements depending on the skills that the brokers may bring to the activity and to decide the manner in which the brokerage payable on the business may be shared among them. However, it is not permitted for one broker to appoint another broker to handle the broking of an account that has been given to that broker to handle by the client.

b) Each of the direct insurance co-brokers shall be brokers who are licensed to broke the class of business concerned and each co-broker shall be responsible to ensure that these guidelines are complied with.
c) The manner in which the brokerage is shared among the co-brokers shall be disclosed to the insurer on request. The insurer will be guided by the instructions of the client with regard to payment of brokerage to each co-broker for his share or to the lead co-broker who will then be responsible to pay the other co-brokers.

d) Each of the co-brokers on a reinsurance placement shall also be responsible to ensure that these guidelines are complied with by themselves and any foreign brokers used by them.

e) Where a reinsurance placement is co-broked with a foreign reinsurance broker, the licensed broker in India shall only use reinsurance co-brokers who agree to comply with the requirements of these guidelines and shall be responsible to secure compliance with these guidelines to the extent applicable, by the foreign reinsurance co-broker. The name and other particulars of the foreign reinsurance co-broker shall be disclosed to the insurer.

8. Reinsurance brokerage:

a) Where the brokerage charged for a particular case exceeds the normal level of brokerage for such transaction, the fact should be disclosed to the insurer before binding cover. For this purpose, the normal level of brokerage shall be taken to be 2.5% on reciprocal proportional treaties, 5% on non-reciprocal proportional treaties, 10% on excess of loss covers and 5% on facultative placements.

b) For the purpose of sub-para (a) above, payments of all nature in respect of the particular account, such as risk inspection fees or risk management fees or administration charges, etc., shall be aggregated.

9. Insurer’s right to develop business directly:

Nothing contained in these guidelines shall be interpreted as prohibiting an insurer from approaching a client directly to service its insurance requirements. However, an insurer shall not go to a client who has already decided to use a broker for its insurance placement and has appointed a broker and such broker has approached the insurer for terms.

10. Effective date

These guidelines shall come into effect from 01st October 2006 and shall apply to any insurances where the process of placing insurance or negotiating terms of insurance is initiated after that date, including renewals in respect of insurances expiring after that date.

(C.S. Rao)
Chairman
Form K

Appendix III

*(See Regulation 4)*


STATEMENT OF SOLVENCY MARGINS: LIFE INSURERS

| Form Code: | [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] |

Name of Insurer: ________________________________

Registration Number: ________________ Date of registration: ________________

Classification: Business Within India/ Total Business

Classification Code: [ ]

TABLE I - REQUIRED SOLVENCY MARGIN BASED ON MATHEMATICAL RESERVES AND SUM AT RISK

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<th>Item No.</th>
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<th>Mathematical Reserves before Reinsurance</th>
<th>Mathematical Reserves after Reinsurance</th>
<th>K1</th>
<th>Sum at Risk before Reinsurance</th>
<th>Sum at Risk after Reinsurance</th>
<th>K2</th>
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Notes to Form K:

1. K1 = 0.85* or (Mathematical Reserves after Reinsurance / Mathematical Reserves before reinsurance), whichever is higher. [* 0.50 in case of reinsurers, carrying on life insurance -business];
2. K2 = 0.5 or (Sum at Risk after reinsurance / Sum at risk before reinsurance), whichever is higher;
3. Col.(11) = [Col.(3) x Col.(5) x Col. (9)] + [Col.(6) x Col.(8) x Col. (10)];
4. In the computation of the total sum at risk, ignore the contracts for which the sum at risk is a negative figure or does not exist;
5. Details of first and second factors:

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<td>01: Life Business</td>
<td>4%</td>
<td>0.3%</td>
</tr>
<tr>
<td>02: General Annuity</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>03: Pension</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>04: Health</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Group Business:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05: Life : Premiums guaranteed for:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06: Life : Premiums guaranteed for:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07: General Annuity</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>08: Pension</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Linked Business:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Individual Business:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11: Life Business</td>
<td>2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>12: Without Guarantees</td>
<td>1%</td>
<td>0.3%</td>
</tr>
<tr>
<td><strong>Group Business:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13: Life Business</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>14: Without Guarantees</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>IC-85 REINSURANCE MANAGEMENT</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#You dream, we care. A new way of learning... India’s No1 E-Learning Platform
<table>
<thead>
<tr>
<th>General Annuity</th>
<th>17: With guarantees</th>
<th>18: Without Guarantees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Pension</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>19: With guarantees</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>20: Without Guarantees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual Business</strong></td>
</tr>
<tr>
<td>Linked business</td>
</tr>
<tr>
<td>21 With Guarantees</td>
</tr>
<tr>
<td>22 Without Guarantees</td>
</tr>
<tr>
<td>23 Non-Linked Business</td>
</tr>
<tr>
<td><strong>Group Business</strong></td>
</tr>
<tr>
<td>Linked</td>
</tr>
<tr>
<td>24 With Guarantees</td>
</tr>
<tr>
<td>25: Without guarantees</td>
</tr>
<tr>
<td><strong>Non-Linked</strong></td>
</tr>
<tr>
<td>26: Premiums guarantees for not more than one year</td>
</tr>
<tr>
<td>27: Premiums guarantees for more than one year</td>
</tr>
</tbody>
</table>
TABLE II- REQUIRED SOLVENCY MARGIN BASED ON ASSETS OF POLICYHOLDERS’ FUND

<table>
<thead>
<tr>
<th>Item No</th>
<th>Category of Asset</th>
<th>Note Nos.</th>
<th>Amount (see Notes below) Rs.</th>
<th>Third Factor %</th>
<th>Required Solvency Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>Non-Mandated investments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>AAA or equivalent Corporate Bonds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>AA or equivalent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>A or equivalent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>BBB or equivalent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>BB or equivalent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>B or equivalent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>Lower than B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Unrated Mortgages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Real estate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Preference shares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Listed Preference Shares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unlisted Preference Shares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Listed Ordinary Shares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unlisted Ordinary Shares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Notes: (1) Column (5) = Column(3) * Column(4);
(2) Column (4) = zero until further intimation from the Authority;
(1) The Table should show the Amount (in Column (3)) which is balance sheet value in respect of the above-mentioned category of asset (where the balance sheet is prepared in accordance with Insurance Regulatory and Development Authority (Preparation of Financial Statements and Auditor’s Report of Insurance Companies) Regulations, 2000.)
(4) All the figures in Columns (3) and (5) should be in Indian Rupees lakhs.
### TABLE III- AVAILABLE SOLVENCY MARGIN AND SOLVENCY RATIO.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Notes No...</th>
<th>Adjusted Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>01</td>
<td>Available Assets in Policyholders' Fund:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Deduct:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>Mathematical Reserves</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>Excess in Policyholders' funds (01-02-03)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>Available Assets in Shareholders Fund:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>Deduct:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>Other Liabilities of shareholders’ fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>Excess in Shareholders' funds (05-06)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Total ASM (04)+(07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Solvency Ratio (ASM/RSM)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Certification:**

I, ________________________, the Appointed Actuary, certify that the above statements have been prepared in accordance with the section 64VA of the Insurance Act, 1938, and the amounts mentioned therein are true and fair to the best of my knowledge.

Place: ______________________

Date: ______________________

Name and Signature of Appointed Actuary
Notes
1. Item No. 01 shall be the amount of the Adjusted Value of Assets as mentioned in Form IRDA-Assets- AA as specified under Schedule I of Insurance Regulatory and Development Authority (Assets, Liabilities, and Solvency Margin of Insurers) Regulations, 2000;
2. Item No. 02 shall be the amount of Mathematical Reserves as mentioned in Form H;
3. Item Nos. 03 and 06 shall be the amount of other liabilities as mentioned in the Balance Sheet;
4. Items No. 05 shall be the amount of the Total Assets as mentioned in Form IRDA-Assets- AA as specified under Schedule I of Insurance Regulatory and Development Authority (Assets, Liabilities, and Solvency Margin of Insurers) Regulations, 2000.

N. RANGACHARY, Chairperson
Appendix IV

Form KG

(See Regulation 5)


**TABLE I - STATEMENT OF SOLVENCY MARGIN: (General Insurers) as at 31st March, 20___.**

<table>
<thead>
<tr>
<th>Item No</th>
<th>Description (Class of business)</th>
<th>Gross Premiums</th>
<th>Net Premiums</th>
<th>Gross Incurred claims</th>
<th>Net Incurred Claims</th>
<th>RSM-1</th>
<th>RSM-2</th>
<th>RSM-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Fire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Marine: Marine Cargo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>Marine Hull:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>Miscellaneous: Motor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>Aviation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>Liability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>Rural Insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Health Insurance:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** (1) RSM-1 in the above table means Required Solvency Margin based on net premiums, and shall be determined as twenty per cent. of the amount which is the higher of the Gross Premiums multiplied by a Factor A as specified below and the Net Premiums.
(1) RSM-2 in the above table means Required Solvency Margin based on net incurred claims, and shall be determined as thirty per cent. of the amount which is the higher of the Gross Net Incurred Claims multiplied by a Factor B as specified below and the Net Incurred Claims.:

<table>
<thead>
<tr>
<th>Item No</th>
<th>Description (Class of business)</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>01</td>
<td>Fire</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>02</td>
<td>Marine: Marine Cargo</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>03</td>
<td>Marine Hull:</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>04</td>
<td>Miscellaneous: Motor</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>05</td>
<td>Engineering</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>06</td>
<td>Aviation</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>07</td>
<td>Liability</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>08</td>
<td>Rural Insurance</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>09</td>
<td>Others</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>10</td>
<td>Health</td>
<td>0.85</td>
<td>0.85</td>
</tr>
</tbody>
</table>

(2) RSM means Required Solvency Margin and shall be the higher of the amounts of RSM-1 and RSM-2.
## TABLE II- AVAILABLE SOLVENCY MARGIN AND SOLVENCY RATIO

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Notes</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>01</td>
<td>Available Assets in Policyholders’ Funds:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Deduct: Liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>Other Liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>Excess in Policyholders’ funds (01 - 02 - 03)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>Available Assets in Shareholders Funds:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>Deduct: Other Liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>Excess in Shareholders’ funds: (05 - 06)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>Total ASM (04)+(07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Total RSM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Solvency Ratio (Total ASM/ Total RSM)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Certification:

I, the Auditor, certify that the above statements have been prepared in accordance with the Section 64VA of the Insurance Act, 1938, and the amounts mentioned therein are true to the best of my knowledge.

Place
Date

Name and Signature of the Auditor

Principal Officer:

Notes

5. Item No. 01 shall be the amount of the Adjusted Value of Assets in respect of policyholders’ funds as mentioned in Form IRDA-Assets-AA.
6. Item No. 02 shall be the amount of Total Liabilities as mentioned in Form HG.
7. Item No. 03 shall be the amount of other liabilities arising in respect of policyholders’ funds and as mentioned in the Balance Sheet.
8. Items No. 05 shall be the amount of the Total Assets in respect of shareholders’ funds as mentioned in Form IRDA-Assets-AA.
9. Item Nos. 06 shall be the amount of other liabilities arising in respect of shareholders’ funds and as mentioned in the Balance Sheet;

N. RANGACHARY, Chairperson
Appendix V

Credit Rating - S&P and A.M. Best Definitions

Insurance Ratings Definitions from Standard & Poor

AAA
An insurer rated 'AAA' has EXTREMELY STRONG financial security characteristics. 'AAA' is the highest Insurer Financial Strength Rating assigned by Standard & Poor's.

AA
An insurer rated 'AA' has VERY STRONG financial security characteristics, differing only slightly from those rated higher.

A
An insurer rated 'A' has STRONG financial security characteristics, but is somewhat more likely to be affected by adverse business conditions than are insurers with higher ratings.

BBB
An insurer rated 'BBB' has GOOD financial security characteristics, but is more likely to be affected by adverse business conditions than are higher rated insurers.

An insurer rated 'BB' or lower is regarded as having vulnerable characteristics that may outweigh its strengths.

'BB' indicates the least degree of vulnerability within the range; 'CC' the highest.
BB

An insurer rated 'BB' has MARGINAL financial security characteristics. Positive attributes exist, but adverse business conditions could lead to insufficient ability to meet financial commitments.

B

An insurer rated 'B' has WEAK financial security characteristics. Adverse business conditions will likely impair its ability to meet financial commitments.

CCC

An insurer rated 'CCC' has VERY WEAK financial security characteristics, and is dependent on favourable business conditions to meet financial commitments.

CC

An insurer rated 'CC' has EXTREMELY WEAK financial security characteristics and is likely not to meet some of its financial commitments.
An insurer rated 'R' is under REGULATORY SUPERVISION owing to its financial condition.

During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.

The rating does not apply to insurers subject only to nonfinancial actions such as market conduct violations.

An insurer rated 'NR' is NOT RATED, which implies no opinion about the insurer's financial security.

Plus (+) or minus (-) signs following ratings from 'AA' to 'CCC' show relative standing within the major rating categories.

'Pi' Ratings, denoted with a 'pi' subscript, are Insurer Financial Strength Ratings based on an analysis of published financial information and additional information in the public domain.

They do not reflect in-depth meetings with an insurer's management and are therefore based on less comprehensive information than ratings without a 'pi' subscript.

'Pi' ratings are reviewed annually based on a new year's financial statements, but may be reviewed on an interim basis if a major event that may affect an insurer's financial security occurs.

'Pi’ ratings are not subject to potential CreditWatch listings. 'Pi’ ratings may also carry (+) and (-) designations to indicate their standing within categories.

Quantitative ratings, denoted with a "q" subscript, were discontinued in 1997 and are being replaced by the pi subscript.
Insurance Ratings Definitions from A.M. Best

SECURE

A++ and A+
Very Strong. Superior on balance. Not vulnerable to adverse changes in underwriting and economic conditions.

A and A-
Strong. Excellent on balance. Not vulnerable to adverse changes in underwriting and economic conditions.

B++ and B+
Very good on balance.

VULNERABLE

B and B-
Fair on balance. Have an ability to meet ongoing obligations to policyholders. Vulnerable to adverse changes in underwriting and economic conditions.

C++ and C+
Marginal on balance. Have an ability to meet ongoing obligations to policyholders. Vulnerable to adverse changes in underwriting and economic conditions.

C and C-
Weak on balance. Have an ability to meet ongoing obligations to policyholders. Very vulnerable to adverse changes in underwriting and economic conditions.

D
Poor on balance. May have no ability to meet ongoing obligations to policyholders. Extremely vulnerable to adverse changes in underwriting and economic conditions.

E
Placed by regulatory authority under a significant form of supervision or rehabilitation but does not include liquidation.

F
Placed under an order of liquidation.

S Rating suspended.