

INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS



GUIDANCE PAPER ON RISK TRANSFER, DISCLOSURE AND ANALYSIS OF FINITE REINSURANCE

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Guidance paper on risk transfer, disclosure, and analysis of finite reinsurance

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1. Introduction

1. This paper contains guidance regarding the supervision of finite reinsurance that is supported by a number of existing IAIS principles and standards on insurance supervision. Recent developments in the area of finite reinsurance by various regulatory agencies have highlighted the concern that this form of reinsurance has been used improperly on occasion. The paper outlines the background on the development of finite reinsurance and the uses of this product by insurers. The paper then turns to the issues in finite reinsurance that supervisors should be aware of and identifies the various supervisory approaches taken to address these issues. There are detailed examples and further discussion on these topics in the appendices.

2. Issues concerning finite reinsurance relate both to the life and non-life reinsurance sectors. The paper in general applies to both life and non-life and where appropriate, there are separate paragraphs for life and non-life reinsurance which are subtitled.

3. The purpose of this paper is to provide insurance supervisors with information to aid in the evaluation of finite reinsurance from the perspective of the ceding insurer (including a retrocedent); however there are many aspects, such as the transfer of insurance risk, that also apply to the assuming reinsurer (or retrocessionaire). There are a number of ongoing projects in various international fora (e.g., American Academy of Actuaries, Financial Accounting Standards Board, Canadian Institute of Actuaries, etc..) concerning the transfer of insurance risk, accounting and disclosure issues, both with traditional reinsurance and finite reinsurance. The IAIS plans to revisit this guidance paper and others, such the *Supervisory Standard on the Evaluation of the Reinsurance Cover* (2002) based upon the outcome of these ongoing projects.

4. From a supervisory perspective, the issues around finite reinsurance are important because of the credit or allowance for reinsurance that may be permitted within a jurisdiction's capital adequacy and solvency regime. This credit or allowance is addressed by principle No. 11 - *Allowance for Reinsurance* in the IAIS principles No. 5: *Principles on Capital Adequacy and Solvency* (2002), which sets out the principles that should serve as a basis for capital adequacy and solvency regimes. Furthermore, the supervision of reinsurance (both by direct writers and reinsurers) is addressed in the IAIS principles No. 1: *Insurance Core Principles and Methodology*, adopted in October 2003, including:

- Principle 6: Licensing
- Principle 11: Market analysis
- Principle 12: Reporting to supervisors and off-site monitoring
- Principle 13: On-site inspection
- Principle 15: Enforcement and sanctions
- Principle 17: Group-wide supervision
- Principle 19: Insurance activity
- Principle 20: Liabilities
- Principle 23: Capital adequacy and solvency
- Principle 25: Consumer protection
- Principle 26: Information, disclosure & transparency towards the market

5. In addition, the IAIS has approved the following principles and standard concerning reinsurance and related subjects:

- *Principles No. 6: Principles on Minimum Requirements for Supervision of Reinsurers* (October 2002)
- *Supervisory standard No. 6: Supervisory Standard on the Exchange of Information* (January 2002)
- *Supervisory standard No.7: Supervisory Standard on the Evaluation of the Reinsurance Cover* (January 2002)
- *Supervisory standard No 8: Standard on Supervision of Reinsurers* (October 2003)
- *Supervisory standard No. 9: Disclosures Concerning Technical Performance and Risks for Non-life Insurers and Reinsurers* (October 2004)

6. Reinsurance is an important risk management tool used within the insurance industry to spread the uncertain cost of risk exposure over a larger global capital base. The complexity of reinsurance products has evolved substantially in recent years. Apart from other risk ameliorating forms (e.g. securitisation and alternative insurance risk transfer

products), the advancements in technology have allowed much more discreet calculations of probabilities of loss, payment patterns, risk exposure quantification and risk concentration. The intention of the reinsurance contract may not always be evident in its wording and the balance between the transfer of insurance risk and the resultant effect on capital and reported accounts may get distorted. While the insurer's role is to manage its risks, the supervisor's role is to ensure that the capital position and solvency of the insurer are not compromised.

7. Finite reinsurance (also known in some jurisdictions as “financial reinsurance”, “structured reinsurance”, “non-traditional reinsurance” or “loss mitigation reinsurance”) is a generic term that, for purposes of this paper, will be used to describe an entire spectrum of reinsurance arrangements that transfer limited risk relative to aggregate premiums that could be charged under the contract. Although there is no accepted global definition of “finite reinsurance,” a typical transaction may include, but not be limited to provisions for aggregating risk, for aggregating limits of liabilities, for aligning the interests of insurers and reinsurers, and for explicitly recognising the time value of money.¹ A detailed review of the entire contract and any side agreements (if permitted) is necessary to determine if contracts containing such clauses do transfer risk and are in fact reinsurance contracts when considered in their totality.

8. Usually, some of the following characteristics will be present within finite reinsurance contracts, although some of them may be present in traditional reinsurance as well:

- insurance risk transfer and financing are combined
- assumption of limited risk by the reinsurer (e.g., aggregate limit of liability, blended cover, sliding scale and other adjustable commissions, loss corridors and limits or caps)
- transfer of volatility (e.g., multiple lines of business, multiple years of account and multiple year contract terms)
- inclusion of future investment income in price of contract (recognition of time value of money with funds withheld)
- potential profit sharing between parties (e.g. profit-sharing formulas, experience accounts)
- pricing determined by ceding insurers' results and not reinsurance pricing cycle
- terms and pricing are typically determined in advance
- bulk reinsurance (i.e. administration of reinsurance is done on a bulk basis rather than on a traditional seriatim policy-by-policy basis, for a block of new or in-force business).

9. There are other definitions of finite reinsurance, which are included in Appendix III.

10. Finite reinsurance transactions are legitimate; however it is essential that they are accounted for appropriately under generally accepted accounting principles (GAAP). In particular it is necessary to ensure that contracts that are afforded “insurance” accounting have transfer of sufficient insurance risk to meet the requirements of the relevant accounting standards. As outlined in Section 4, insurers often use these arrangements to protect themselves from a variety of risks. These finite reinsurance arrangements will typically cap the reinsurer's ultimate liability.

¹ Please refer to the IAIS Glossary for a complete definition of existing IAIS terms used in this paper. New terms are referenced in Appendix III and will be added to the IAIS Glossary in due course.

11. There are a number of effects of finite reinsurance, one of which is to insulate the primary insurer from the peaks and troughs of volatile underwriting results during the period of a reinsurance contract. For this reason, timing risk can be as important an element of reinsurance as underwriting risk. The needs of each primary insurer will be slightly different, and this has given rise to a wide variety of finite reinsurance products. For non-life reinsurance, there are two broad categories of finite reinsurance: retrospective and prospective covers. The former will provide protection against a more rapid deterioration of old-year reserves than expected, the latter serves to reduce volatility in current and future premiums and claims patterns.

12. Reinsurers have generally used the concept of the “bank” when determining their relationship with a ceding insurer over the years. The “bank” being the net of the premium received and interest income less losses paid over the period of the relationship. Over the long term, the reinsurer would expect the ceded premiums and invested earnings to fund its own losses and provide an appropriate risk adjusted return on the reinsurer’s capital, which the ceding insurer is effectively using. Reinsurance was regarded as a relationship where in order to survive both parties must over time make money, although there could obviously be instances within that period where either party could bear significant losses. This is opposed to regarding a reinsurance contract as a very discrete short-term transaction, unrelated and unaffected by any prior mutual experience. Some finite reinsurance arrangements put in a contract the long-term relationship between the reinsurer and the cedant. Reinsurance arrangements that are designed to misrepresent the true financial position of the insurer are categorically different.

13. Finite reinsurance transactions have received heightened scrutiny from supervisors, media and industry participants. As a response to this scrutiny, several market participants have had external and internal investigations of their accounting practices in this area and a few have restated prior year earnings to remove or reduce the impact of certain finite reinsurance agreements. The restatement of a finite reinsurance agreement is primarily in respect of GAAP accounting results and is typically due to one of two reasons: i) evidence had been identified that there was minimal, if any, intent to transfer risk at the contract’s inception; or ii) certain required accruals were not made on a timely basis. In certain cases, separate agreements from the reinsurance contract, referred to as side agreements, were not adequately considered in assessing insurance risk transfer for accounting purposes.

14. The IAIS has been actively addressing the issues surrounding finite reinsurance and through this paper is providing supervisory guidance concerning the various types of finite reinsurance arrangements, potential disclosure requirements, analysis of current regulatory treatment, consideration of various types of accounting guidance in jurisdictions, insurance risk transfer requirements and additional supervisory requirements for material reinsurance transactions. This paper is not intended to prescribe public accounting requirements, although the IAIS is actively participating in the IASB Phase II Insurance Contracts Project.

Specific issues related to life reinsurance

15. Typically, the issuance of a life insurance policy causes a drain on the surplus of the life insurer issuing the policy, since the first year reserve plus the commission and other issue expenses may exceed the first year premium. This initial investment is usually not recovered for several years. Life insurance depends on the proposition that the present value, at the moment of issue, of all future gross premiums exceeds the present value, at the same moment, of all future expenses and benefits to policyholders, the excess being counted upon as the margin of safety in the premium rate plus the profit expectation.

16. For supervisory purposes, reserving requires comparison of the present values of future income and outflow. Present values of income and outflows can be computed based upon various assumptions including mortality, interest rates, and lapse rates. Supervisory requirements are conservative in order to protect policyholders under a wide variety of

operating philosophies. The net result of the interaction between business considerations and statutory requirements is that the strain on surplus of writing a large volume of new business can be a serious problem for an insurer. Those ceding insurers may seek relief by electing to reinsure business on a coinsurance (co) or modified coinsurance (modco) or combination of co/modco basis, under which the reinsurer assumes the surplus strain along with the risk involved on the portions of policies reinsured. Those insurers whose surplus problems are particularly acute may choose to retain less and reinsure more in order to obtain additional surplus relief. For the reinsurer providing the surplus relief, the key consideration at the reinsurance inception is the comparison of the present value of future reinsurance premiums to the present value of future reinsurance payments and expenses. In some jurisdictions (e.g., Canada) yearly renewable term (YRT) has a similar effect as coinsurance or modified coinsurance to relieve statutory strain.

17. Similar to non-life reinsurance, one of the essential ingredients of a life reinsurance contract is the shifting of insurance risk. The reinsurer must indemnify the ceding insurer in form and in fact, against loss or liability relating to the original policy. Unless the contract contains this essential element of insurance risk transfer, the ceding insurer may not be allowed by supervisors in some jurisdictions to account for it as an insurance or reinsurance arrangement. However, since life insurance already takes into account the time value of money, some of the reasons for using life finite reinsurance will differ and are specified later in the paper.

2. History of finite reinsurance

Non-life insurance

18. Finite reinsurance is thought to have started in London during the 1960's. The reinsurance contracts - then called "rollover" coverage - were first used to help Names in Lloyds' syndicates avoid high tax rates by rolling over premiums from year to year. From rollover coverage came "time and distance" policies, again purchased by Lloyds' syndicates to get around restrictions on discounting loss reserves.

19. In the early 1980s, when interest rates were historically high, so-called "financial reinsurance" began to flourish. These transactions typically recognised the time value of money and guaranteed profit without transfer of risk.

20. During the hard market of the mid- 1980s, where limited capacity and increasing prices dominated the reinsurance industry, alternative risk covers that provided stable protection were in demand. In particular, the increase of liability exposures in the mid- 1980s greatly enhanced the demand for these products as the duration of losses were greater for liability (casualty) covers than for typical property exposures. Many insurers sought these products in order to enhance financial ratios as well as remove a substantial part of the long-tail liabilities that were quickly growing on their balance sheets. Pure finite reinsurance transactions of the 1980's focused more on the timing risk of claims that may be paid over a period of several years or even decades.

21. Due to the cyclical nature of reinsurance markets, these "financial" solutions offered more stable and reliable products than those typically offered only on an annual basis that had to be renegotiated yearly. Many of the transactions that have received scrutiny recently were developed to mitigate adverse loss development arising from reinsurance contracts written from 1997-2001. Reinsurers had an abundance of capacity that was being underutilised and ceding insurers were enduring intense market competition where underpricing risks was the norm. This provided an opportunity for ceding insurers to purchase finite reinsurance, which would provide relatively cheap protection against future

adverse loss development, or would provide cover against prior losses being under reserved. It also would provide for the costs of settlement associated with casualty claims.

22. There are also arrangements usually referred to as “blended covers” in which a traditional reinsurance cover and a finite cover are blended together within the same contract, to ensure that significant risk shifting is clearly present in the contract. By its nature, finite reinsurance tends to shift the underwriting approach from classical risk pooling concepts to individual actuarial assessment of the particular risk and related cash flows.

Life insurance

23. The US life reinsurance market is currently the largest life reinsurance market in the world, and most of the business is now proportional under standards developed by the National Association of Insurance Commissioners (NAIC) in 1985 and refined in 1991.

24. Examples of clauses used into the 1980’s in the US to lower the up-front cost of reinsurance were:

- return of significant losses to the ceding insurer through a “negative” experience refund
- higher than sustainable guarantees from ceding insurers to reinsurers on funds withheld investment income
- retroactive downward slides on ceding allowances if experience was worse than expected.

25. Views differ about why life finite reinsurance developed and grew in the US. One view is that prior to the early 1980s, many finite reinsurance transactions were structured to take advantage of US federal income tax benefits. The transactions usually limited insurance risk transfer in order to achieve the tax benefits as cost-effectively as possible. Those tax benefits were eliminated in the early 1980s. Another view is that some insurers “cut corners” by purchasing “inexpensive” reinsurance – reinsurance that passed essentially no risk to the reinsurer. At the time, regulators said that some of those insurers were taking reserve credit wildly disproportionate to any risk actually reinsured.

26. Since the 1980’s, life reinsurance in the US and some other jurisdictions has seen tremendous growth and significant consolidation. Primary insurers have become very dependent on their reinsurers. Reinsurers find themselves anticipating capital constraints in their offshore programmes, while primary insurers are confronting hard market conditions, including increasing reinsurance rates.

27. European life reinsurance arrangements, including, coinsurance and modified coinsurance involving the reinsurer’s participation in the financing of life insurers (and therefore frequently referred to as “financing reinsurance”) have been the traditional and most commonly applied structure for more than a century. Through such arrangements reinsurers have historically fostered the development of numerous new life insurance ventures in many countries.

28. Under coinsurance or modified coinsurance structures the reinsurer provides financial support by participating in – and thereby mitigating – the initial strain to the cedant’s accounts and liquidity resulting from the generation of new business. The reinsurer further protects the cedant from the effects of potential future volatility of the acquired business. When applied to in-force portfolios the arrangements enable the cedant to capitalise on the value of previously self-financed business in order to finance new business.

29. Over the recent decades similar structures were developed on the basis of guaranteed risk premium reinsurance. Under these structures the reinsurer participates in the cedant’s acquisition costs either by means of an explicit initial reinsurance commission

payment or through a discount on initial reinsurance premiums. Also these structures provide for the indemnification of the cedant from volatility in future performance of the ceded business.

30. Financing reinsurance arrangements – such as coinsurance or modified coinsurance - frequently include such features as bulk accounting² and losses carried forward with interest, deficit accounts or profit sharing – which generally serve to cap the reinsurer's right to future profits. Despite these characteristics they transfer performance volatility to the reinsurer.

31. Coinsurance and modified coinsurance arrangements frequently involve such features as carried forward losses or deficit accounts; profit sharing mechanisms which serve to cap the reinsurer's right to future profits. Furthermore bulk accounting is not an uncommon practice.

3. Functions of reinsurance

32. The function of reinsurance is to reduce volatility, and thus the uncertainty of the insurer's pricing risks, by pooling. This is done to increase the probability of survival of the insurer over a given time. In purchasing reinsurance, insurers seek to improve their financial performance and security. There are five primary functions of reinsurance:³

- Capacity

Reinsurance provides flexibility for insurers in the size and types of risk and the volume of business they can safely underwrite. It will allow the insurer to enter into new business, expand or withdraw from a class or line of business and/or geographical area within a short period.

- Stability

Properly structured reinsurance programmes will assist insurers by limiting wide fluctuations in underwriting results. As a consequence, the limited risk spread will allow the insurers to reduce the required amount of their own funds, and hence the solvency margin. The aspect of security funds is directly related to the increasing importance of the shareholder value by the return on investment.

- Catastrophe Protection

Associated with stability, reinsurance provides for protection against the potential large accumulations that can result from catastrophic events; for example, earthquakes, bush-fires and cyclones.

- Financial

Reinsurance assists in financing insurance operations as an alternative to increasing an insurer's capitalisation. In this regard, the insurer may have the asset backing of many large reinsurers.

- Expertise

² Bulk accounting is a practice used in quota share contracts, where the settlement between the cedant and the reinsurer at the end of certain period (usually one year) is based on premiums and claims on the whole portfolio rather than on an individual basis.

³ From IAIS Principles on Minimum Requirements for Supervision of Reinsurers (October 2002).

Reinsurers supply assistance to insurers in specialised areas where the insurers may have little or no experience. The qualified members of staff of a professional reinsurer will offer services regarding the production process to new insurers in particular and/or to insurers taking up new business lines or expanding their area of operations.

Specific functions of life reinsurance

33. There are many similar functions for life reinsurance compared to non-life reinsurance. However, several other functions for life reinsurance may include:⁴

- mortality/morbidity risk transfer – enables insurer to issue a policy on a single life for an amount in excess of its retention limit
- lapse or surrender risk transfer – the risk of excessive lapses or surrenders which is greatest on products with large first year surplus strain
- investment risk transfer – take advantage of the reinsurer's investment facilities or otherwise shift part of the investment risk to the reinsurer
- increasing sales and profits – because reinsurers normally have lower issue and administrative expenses, reinsurance can be purchased at a relatively low marginal cost to the ceding insurer; consequently the ceding insurer's intermediaries or agents can write business which otherwise would be placed with competitors having higher retention limits
- increasing reinsurer's in-force – an insurer may assume reinsurance to develop a larger base of policies over which to spread administrative expenses or to augment in-force when direct sales do not meet business plans
- limited catastrophic claims – multiple deaths from a single event will have a dramatic effect on an insurer's earnings.

4. Uses of finite reinsurance

34. There are a number of uses of finite reinsurance with various purposes, which must be assessed on a case by case basis. The product itself must be separated from possible cases of abuse when there is insufficient risk transfer and/or is not accounted for appropriately based upon the economics of the transaction. Examples of appropriate uses of finite reinsurance, where there is significant risk transfer and it is appropriately accounted for, include:

- to capitalise on an insurer's above average underwriting loss experience when traditional reinsurance coverage is too expensive
- to increase underwriting capacity, take larger retention in favourable underwriting environments or risks that traditional markets would not cover
- to have the ability to purchase reinsurance protection when an insurer's historic underwriting loss experience is much worse than average, making "reasonably" priced reinsurance unavailable
- to provide reinsurance cover when an insurer wants to exit lines of business
- to protect against potential adverse loss development, including the acquisition of new blocks of business.

⁴

Functions of life reinsurance summarised from the following source: John E. Tiller, Jr., Denise Fagerberg, Life, Health and Annuity Reinsurance, 1995.

35. Finite reinsurance may be inappropriate if it is used to misrepresent the insurer's reported financial position and results or enhance the balance sheet for a number of reasons, such as to avoid a ratings downgrade, to avoid non-compliance with creditor lending conditions, or to avoid or delay supervisory intervention.

36. The following are examples of uses of finite reinsurance, which may be acceptable in some jurisdictions, but may not be allowed in others:

- to effect discounting of insurance liabilities in jurisdictions where discounting is not permitted and/or equalisation reserves are not used
- to reduce volatility (smooth) in reported earnings and enhance the financial position of the insurer over a period of time (e.g. multi-year contracts)
- to provide surplus relief or capital enhancement in jurisdictions where acquisition expenses are non-deferrable
- to transfer insurer's profits to another jurisdiction or an affiliate (e.g., potentially minimising taxes or engaging in regulatory arbitrage).

Specific examples of life finite reinsurance

37. An additional life insurance specific example of an appropriate use of finite reinsurance, where there is insurance risk transfer and it is appropriately accounted for is for strategic business planning – where reinsurance may be used to increase future profits, utilise excess administrative capacity, or assist the insurer in entering a new market. Conversely, an insurer may cede or sell reinsurance to exit a certain market. Reinsurance may also be used as part of the financing in a leveraged buy-out. In most instances, reinsurance for business planning purposes is of a permanent nature and specific provisions for recapture is not usually in the treaty. Assumption reinsurance is commonly used for this purpose. Additional examples of uses of finite reinsurance are in Appendix IV.

38. It should be noted that traditional reinsurance products might be used in similar ways as those indicated above.

5. Issues in finite reinsurance

39. From a supervisory perspective, the primary issues in finite reinsurance revolve around whether there is significant insurance risk transfer and if there are appropriate accounting and disclosure. In some instances, misuse of finite reinsurance has resulted in misrepresentation of the insurer's financial position to supervisors, policyholders, investors, creditors and other stakeholders, and brought into question the adequacy of corporate governance and management accountability.

Insurance risk transfer

40. Determining whether a reinsurance contract involves the transfer of insurance risk requires a complete understanding of the contract (and any related agreements) between the ceding insurer and the reinsurer. All contractual features that limit the amount of insurance risk to the reinsurer (such as through experience refunds, treaty cancellation provisions, adjustable features, partial or full recapture provisions, or additions of profitable lines of business to the reinsurance contract) or delay the timely reimbursement of claims by the reinsurer (such as through payment schedules or accumulating retentions from multiple years) should be thoroughly understood by supervisors. A transfer of risk generally requires

that the reinsurer assume all the significant risks under the reinsured portions of the underlying insurance contracts and that these risks are not negated by contract provisions⁵.

41. A key issue in finite reinsurance (which applies to all reinsurance) is whether the arrangement satisfies the conditions for insurance risk transfer, which includes underwriting risk and/or timing risk. These are defined as follows:

- Underwriting risk is the possibility that losses and expenses recoverable by the cedant from the reinsurer will exceed the consideration received by the reinsurer, thus resulting in an underwriting loss to the reinsurer
- Timing risk is the risk arising from uncertainties about the timing of the receipt and payments of net cash flows from premiums, commissions, claims, and claim settlement expenses paid under a contract. The reinsurer could have a reduction in the expected investment income as a result of accelerated loss payments.

42. Insurance risk transfer is a complicated issue. There is a wide spectrum of insurance risk transfer agreements ranging from a purely financial arrangement, in which no underwriting or timing risk is transferred to the reinsurer, to a quota share arrangement in which there are no limitations on insurance risk transfer other than those inherent in the original underlying policies issued by the ceding insurer to its policyholders. There are a number of international bodies currently studying the issues of insurance risk transfer. See Appendix V for details.

43. A treaty is regarded as a reinsurance arrangement, if it cedes business which under local rules is accepted as an insurance product. The treaty is only to be considered as a loan or deposit, if during its regular development, the cedant has the unconditional obligation to indemnify the reinsurer for any negative balances that may arise out of the treaty relationship. All liabilities of the cedant must be contingent on the proceeds of the underlying insurance business.

44. In some jurisdictions, there is a distinction in the insurance risk transfer assessment and accounting between life and non-life reinsurance. For life reinsurance, the public financial reporting disclosure requirements in some jurisdictions are as follows:

- the extent to which actuarial liabilities have been reduced by reinsurance ceded
- amounts of significant concentration of reinsurance coverage
- a statement that reinsurance does not relieve the insurer of primary obligation to insured.

45. Supervisors should review insurers' assessment of insurance risk transfer, when necessary. Modelling of insurance assets and liabilities, for determining the insurance risk transfer in reinsurance arrangements inclusive of finite reinsurance, usually involves cash flow projections of various scenarios. More complex reinsurance arrangements, with greater exposures in the tails of the outcome distributions have driven a demand for greater use of such modelling⁶.

46. Supervisors may wish to assess the efficacy of an insurer's ceded reinsurance operations. They may do this by evaluating the insurer's insurance risk transfer measuring devices. This may entail review of an insurer's analysis of cash flows related to blocks of assets and liabilities attendant to a particular transaction. Insurers may utilize simplified or complex (often referred to as "stochastic") programs to model cash flows under many

⁵ This is not true for YRT life reinsurance, as the lapse and investment risks are not transferred.

⁶ For example, Casualty Actuarial Society paper, Risk Transfer Testing of Reinsurance Contracts: Analysis and Recommendations (August 2005).

different scenarios using many different model inputs (e.g., interest rates, payout patterns, default rates, etc.).

Accounting treatment of finite reinsurance

47. Accounting for a transaction between a ceding insurer and a reinsurer is based on national and international accounting rules. As a result, the accounting treatment may currently be independent of the issue whether a transaction does qualify as standard reinsurance or finite reinsurance or does not constitute reinsurance at all. Generally, if the life reinsurance contract does not meet the insurance risk transfer requirements as outlined in the above number 43, it should be accounted for as a loan or deposit.

Generally accepted accounting principles (GAAP)

48. The accounting for a reinsurance arrangement should aim for a true and fair presentation of the economic value of the transaction by insurers and reinsurers, which is ensured by well developed rules and effective enforcement. If a finite reinsurance arrangement contains significant risk transfer, it is accounted for as insurance, as there is a credit recognised for the insurance risk transfer via a reduction in the technical provisions and capital requirements in the capital adequacy calculation.

49. However, if the finite reinsurance arrangement does not meet the criteria for significant insurance risk transfer, it should be accounted for as a loan or deposit. The amounts paid to the reinsurer would be reflected as an asset (similar to a loan or deposit) on the insurer's balance sheet and the amounts received from the reinsurer would be reflected as a reduction of the deposit asset on the balance sheet.

50. Conceptually, when determining how much credit should be allowed for reinsurance, it is necessary to examine the provisions of the reinsurance agreement. Limitations on the maximum amount recoverable from the reinsurer during any defined period, (e.g., contract year), should serve to limit the amount by which gross losses may be reduced on the cedant's financial statements. Such limitations may take the form of loss ratio caps, per occurrence loss limits or loss "corridors" (a band of loss which must be assumed net by the insurer before the reinsurer becomes responsible for any further losses under the agreement).

51. An analysis of reinsurance contract provisions is necessary to determine whether, and to what extent, reinsurance accounting treatment should be allowed. Even if the provisions in the reinsurance arrangement appear to satisfy insurance risk transfer requirements, it may be necessary to perform an analysis of discounted cash flows, using reasonable assumptions as to the ultimate amount of recoverable incurred losses, loss payment patterns and interest rates, to determine whether there is a reasonable likelihood of a significant loss to the reinsurer.

52. As noted in the introduction, this guidance paper is from the perspective of the supervisor of the ceding insurer, but many of the aspects also apply to the supervisor of the assuming reinsurer. The conclusions reached from an assessment of insurance risk transfer by the cedant and the reinsurer, in an ideal world, would be identical and result in "mirroring" of the accounting treatment. However, this is not always the case due to differing assumptions, differing insurance risk transfer rules in different jurisdictions, and that the insurance risk transfer assessment by each of the counterparties could provide differing results from the transaction. Typically, there may be a different conclusion where:

- the cedant believes there is significant insurance risk transfer and accounts for the transaction as insurance, and takes credit for reinsurance in its technical provisions and its solvency calculation

- the reinsurer believes there is not significant insurance risk transfer, accounts for the transaction as a loan or deposit and avoids capital requirements, as there are no related premiums and losses, and does not recognise adverse development immediately, but accretes its liability to the ultimate value over the term of the payout
- timing differences resulting from lag in reporting add to the uncertainty.

53. When reviewing the assessment of insurance risk transfer, supervisors, of both ceding insurers and assuming reinsurers, should be aware to the financial motivation of each group of supervised entities.

International accounting standards (IAS)

54. The international financial reporting standard # 4 (IFRS 4) - *Insurance Contracts*, effective since 1 January 2005, is the first guidance from the International Accounting Standards Board (IASB) on accounting for insurance contracts. Many jurisdictions throughout the world apply IFRS's⁷. Under IFRS 4, a reinsurance contract with only financing characteristics would not be considered an insurance contract and not be given insurance accounting treatment. Some jurisdictions require both underwriting risk and timing risk conditions to be treated as insurance.

55. Provisions in the reinsurance arrangement that have the effect of making the reinsurer's obligation to reimburse covered losses remote may cause the transaction to fail the insurance risk requirement, hence preventing the application of a credit for reinsurance. Examples of these provisions include:

- "floating" retentions – an adjustment in the amount the insurer assumes for its own account
- "last dollar paid" arrangements – setting the attachment point for reinsurance recoveries at a remote level
- multiple year retentions – maintenance of the amount the insurer assumes for its own account for more than one annual contract period
- dual triggers – requires the occurrence of both an insurable event and the changes in a separate pre-identified variable to trigger payment of a claim.

56. Supervisors should have the ability to verify that insurers have accounted for and disclosed any separate or side agreements or understandings that exist between the reinsurance agreement parties that would serve to reduce, offset or eliminate the reinsurer's obligations. Some supervisors have added interrogatories in the annual regulatory returns filed by insurers to determine whether these types of situations exist (see Appendix VI).

57. IFRS 4 outlines specific financial reporting requirements for ceded reinsurance. These focus on two key areas:

- definition of an insurance contract and insurance risk transfer
- measurement and unbundling.

⁷

According to the provisional results of the survey which has been carried out by the IAIS Accounting Subcommittee, IFRS's are applied to insurers in 22 jurisdictions (amongst them, IFRS 4 is not applied in one jurisdiction) out of 30 jurisdictions which responded to the survey. For listed insurers, the use of IFRS's is required in 20 jurisdictions and permitted in one jurisdiction in terms of consolidated financial statements, while use of IFRS's is required in nine jurisdictions and permitted in six jurisdictions in terms of solo financial statements. For unlisted stock insurance companies, use of IFRS's is required in nine jurisdictions and permitted in 12 jurisdictions in terms of consolidated financial statements, while use of IFRSs is required in seven jurisdictions and permitted in seven jurisdictions in terms of solo financial statements. For mutual insurers, use of IFRS's is required in four jurisdictions and permitted in 12 jurisdictions in terms of consolidated financial statements, while use of IFRS's is required in two jurisdictions and permitted in eight jurisdictions in terms of solo financial statements. Besides, according to the research by Deloitte, IFRS's are applied in more than 100 jurisdictions around the world (Website: <http://www.iasplus.com/country/useias.ht>).

58. IFRS 4 applies to all insurance contracts (including reinsurance contracts) that an entity issues and to reinsurance contracts⁸ that it holds. It further defines an insurance contract as a contract with significant insurance risk transfer - i.e. "a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder".⁹

59. With regard to the significance of insurance risk, IFRS 4 provides that insurance risk is significant if, and only if, an insured event could cause an insurer to pay significant additional benefits in any scenario¹⁰. According to it, a contract is not an insurance contract if it does not transfer significant insurance risk. Consequently, IFRS 4 explicitly excludes from insurance contracts some finite reinsurance contracts for example, that have the legal form of insurance, but pass all significant insurance risk back to the policyholder through non-cancellable and enforceable mechanisms that adjust future payments by the policyholder as a direct result of insured losses.

60. IFRS 4 seems to put emphasis on the point that "all significant insurance risk is passed back to policyholder", not simply on the point that "future payments by the policyholder are adjusted as a direct results of insured losses". Consequently, it may not be correct that all of premium-adjusted contracts (e.g. automobile insurance which may increase premium due to occurrence of accidents) are automatically excluded from the definition of insurance contract.

61. IFRS 4 requires the unbundling if both the following conditions are met:

- i. the insurer can measure the deposit component separately (i.e. without considering the insurance component)
- ii. the insurer's accounting policies do not otherwise require it to recognise all obligations and rights arising from the deposit component.

62. Unbundling is permitted, but not required, if the insurer can measure the deposit component separately as in (i) above but its accounting policies require it to recognise all obligations and rights arising from the deposit component.

63. Therefore, whether unbundling is required or not depends on the insurer's accounting policies on recognition of obligations and rights arising from the deposit component. The following case is an example of application: when a cedant receives compensation for losses from a reinsurer, but the reinsurance contract obliges the cedant to repay the compensation in future years. This obligation arises from a deposit component.

64. For the application of IFRS 4:

⁸ IFRS 4 does not clearly define "financial reinsurance contracts". The description of paragraph 62 is not the definition or the exhaustive list of "financial reinsurance contracts", but an example. Appendix B of IFRS 4 describes "some financial reinsurance contracts" as an example of items that are not insurance contracts:

"B19 The following are examples of items that are not insurance contracts:

(b) contracts that have the legal form of insurance, but pass all significant insurance risk back to the policyholder through non-cancellable and enforceable mechanisms that adjust future payments by the policyholder as a direct result of insured losses, for example some financial reinsurance contracts or some group contracts."

⁹ This discussion on IFRS 4 is from the perspective of insurance contracts. It is equally applicable to reinsurance contracts, in which case the term "insurer" should be substituted with "reinsurer" and the term "policyholder" substituted with "ceding insurer".

¹⁰ IFRS 4 Appendix B describes that:

"B23 Insurance risk is significant if, and only if, an insured event could cause an insurer to pay significant additional benefits in any scenario, excluding scenarios that lack commercial substance (i.e. have no discernible effect on the economics of the transaction). If significant additional benefits would be payable in scenarios that have commercial substance, the condition in the previous sentence may be met even if the insured event is extremely unlikely or even if the expected (i.e. probability-weighted) present value of contingent cash flows is a small proportion of the expected present value of all the remaining contractual cash flows."

B24...the additional benefits described in paragraph B23 refer to amounts that exceed those that would be payable if no insured event occurred (excluding scenarios that lack commercial substance)..."

- unbundling is required if the cedant's accounting policies permit it to recognise the compensation as income without recognising the resulting obligation
- unbundling is permitted, but not required if the cedant's accounting policies require it to recognise the resulting obligation.

Disclosure

65. Disclosure concerning the transactions between ceding insurers and reinsurers is guided by national and international disclosure requirements. For illustrative purposes this paper outlines core disclosure principles under IAS, under IFRS concerning non-life business, and under US-GAAP concerning life business.

66. As outlined in IAIS insurance core principle 26: "Information, disclosure & transparency towards the market", insurers should disclose relevant information on a timely basis in order to give stakeholders a clear view of their business activities and financial position and to facilitate the understanding of the risks to which they are exposed.

67. Supervisors should enhance their information gathering on reinsurance arrangements by requiring explicit reporting of amounts and details on reinsurance transactions in the annual supervisory reporting returns. Some of these reinsurance arrangements are structured as a series of transactions on a cross-border basis with multiple parties (some may be related), which, absent disclosure by the insured to the supervisor, makes detection, and insurance risk transfer assessment difficult for local supervisors. In accordance with IAIS insurance core principle 5 "Supervisory cooperation and information sharing", effective supervision is enhanced through international cooperation among supervisors, including sharing of information about the fitness and propriety of the individuals involved in putting the arrangements together. Where possible, the home supervisory authority should inform the host supervisor in advance of taking any action that will affect the foreign insurer in the host supervisor's jurisdiction.

Disclosure in the US or IFRS

Non-life insurance in IFRS

68. The reporting of insurance liabilities both gross and net of reinsurance gives explicit disclosure of counterparty risk by presenting reinsurance recoverables on the insurer's balance sheet. Disclosure of the gross of reinsurance is required by the IAIS Standard on Disclosures concerning Technical Performance and Risks for Non-life Insurers and Reinsurers, and IFRS 4. Refer to IFRS 3 Business Combinations for guidance regarding insurance contracts acquired in a business combination or portfolio transfer.

Life insurance in the US

69. The assumption reinsurance agreements and the indemnity reinsurance agreements differ as follows:

- Under indemnity reinsurance agreements, the ceding entity remains legally responsible for all policyholder obligations of the reinsured policies. The assuming entity indemnifies, or protects, the ceding entity against one or more of the risks in the reinsured policies.
- Under an assumption reinsurance agreement, the ceding entity is relieved of responsibility for the policies reinsured, and the contracts are accounted for by the assuming entity in the same manner as direct business. The reinsurer assumes all of the obligations formerly assumed by the ceding entity. Typically, regulatory and policyholder approval is required. When an insurer intends to

enter into an assumption reinsurance transaction, an indemnity reinsurance agreement may be used for those policies not yet covered by the assumption agreement.¹¹

70. Refer to Appendix V for more information about public accounting and insurance risk transfer testing in various jurisdictions.

6. Supervisory approaches to finite reinsurance

71. The IAIS Reinsurance and Other Forms of Risk Transfer Subcommittee has received responses from a variety of jurisdictions to a questionnaire concerning supervision of finite reinsurance. From the responses, it appears that there are a range of approaches that supervisors can take in order to ensure that these transactions are being disclosed and accounted for properly. This range of approaches reflects the local market conditions and the general supervisory approach taken within a jurisdiction. For example, some jurisdictions take a no failures approach whereas others try to minimise losses to policyholders in the event of the insurer's insolvency. As noted in the introduction, this guidance is from the perspective of the supervisor of the ceding insurer; however, many of the aspects will also apply to the supervisor of the assuming reinsurer. It should also be noted that the supervisory approach to finite reinsurance is currently under review in many jurisdictions.

72. The supervisory practices and procedures seem to reflect where a jurisdiction falls along the continuum of supervisory approaches from a principles-based approach to a rules-based approach, or combination thereof. For example:

- a principles-based approach with emphasis on the responsibility of senior management and the board of directors. The preference is to ensure that senior management have properly agreed and documented policies and procedures. Supervisory risk assessments are carried out to verify that policies and procedures are properly defined and acceptable. In addition, under regulatory principles, senior management is required to disclose any matter which they believe to be of regulatory significance.
- a rules-based approach where the supervisory requirements are more definitive and the supervisory procedures more detailed (such as requiring prior approval of reinsurance contracts). Under this approach, there is less reliance on management and the board of directors' oversight and more reliance on independent supervisory and government testing.

73. Regardless of the supervisory approach, the main concern with these arrangements is when they are deliberately constructed to mislead or where there is abuse by the insurer's management (e.g., certain types of interlinked contracts between related parties or via third parties, or "off contract" arrangements which are concealed from the insurer's stakeholders, supervisors, and creditors). In this respect, they are no different from any other type of deception, which supervisors cannot necessarily prevent.

74. These supervisory approaches include, for example:

- conducting onsite inspections including review of reinsurance programmes, and questioning management on use of limited insurance risk transfer contracts

¹¹ Actuarial Standards Board, Actuarial Standard of Practice No. 11; Financial Statement Treatment of Reinsurance Transactions Involving Life or Health Insurance, June 2005.

- requiring annual attestation by senior management regarding whether insurance risk transfer has been appropriately accounted for and side agreements are reflected in the supervisory reporting returns
- requiring explicit reporting on amounts and details on finite reinsurance transactions in the annual supervisory reporting returns
- review of actuarial reports (which include details on reinsurance) and expanding the actuary's responsibility to assess the adequacy of the insurer's reinsurance system (including insurance risk transfer, philosophy, and adequacy of documentation)
- review of auditor's reports on the financial statements and related working papers
- requiring all limited insurance risk transfer arrangements to have prior supervisory approval (may be subject to materiality limits in some jurisdictions)
- requiring all reinsurance transactions with related parties to have prior supervisory approval and demonstrate that they are at market terms and conditions
- reviewing annual reinsurance management strategy (that has been signed off by the board of directors) regarding the insurer's internal control environment and processes for management review of reinsurance arrangements. Such management strategy is submitted to the supervisor annually.
- highlighting the board of directors and senior management responsibilities via supervisory letters to insurers regarding importance of rigorous risk management, self-assessment of insurance risk transfer, and accurate financial statement reporting; includes the requirement for the insurer to report back to the supervisor annually
- conducting investigations into questionable reinsurance arrangements; investigations often include requiring additional accounting and actuarial review
- in one jurisdiction every reinsurance contract is analysed for sufficient insurance risk transfer
- some jurisdictions ban the use of finite reinsurance
- in other jurisdictions, a risk- based supervisory approach is taken with regard to the review of reinsurance arrangements for insurers and reinsurers
- requiring auditors and actuaries to "whistle blow" by reporting to the supervisor where management's activities may threaten the solvency of the insurer or where potential fraudulent activities are suspected.

75. It will not always be possible to detect every questionable reinsurance arrangement, but the following are indicators to supervisors that there may be a need for further analysis:

- disparate lines of business included within a single treaty
- contracts which do not appear commercially sensible from the standpoint of the insurer or reinsurer. (e.g. are there side agreements which change or mitigate the nature the insurance risk transferred?)
- contracts placed without following the cedant's normal process and guidelines for reinsurance.
- contracts placed very close to the end of the financial year and covering that year or earlier years.

- inconsistencies or gaps in the dating of the documentation (e.g. has an agreement been backdated to give the appearance that it was reached before the end of a reporting period?).
- blended covers - when they cover a combination of a single reinsurance contract with a normal reinsurance arrangement. When this is done, the two covers should be evaluated separately.

Recommendations for supervisors

Insurance risk transfer

76. Supervisors should:

- review the annual reinsurance management strategy (that has been signed off by the board of directors), which sets out a coherent reinsurance programme designed to manage and mitigate the risks assumed in the underlying policies issued by the ceding insurer
- understand that the substance rather than the form of the transaction is crucial, especially if it is not clear why the ceding insurer and the reinsurer would enter into the arrangement
- determine which types of risk are actually transferred and how, and why such transfer is commercially sensible for both the cedant and the reinsurer
- have access to all reinsurance documentation (placement slips, cover notes, reinsurance and side agreements, and any addenda thereto) as an aid to understanding the structure of the agreements and their underlying commercial reality
- have the ability to require insurers to undertake an assessment of insurance risk transfer and economic value of transactions (including the effects of any separate or side agreements or interlinked contracts, and the effects on regulatory capital), which should be available to supervisors.

Life reinsurance risk transfer

77. It is essential that the supervisor understands the entirety of the reinsurance contract arrangements. The Appendix IV includes a sample agreement of life finite reinsurance.

Accounting and disclosure

78. Supervisors should have the ability to verify that insurers have disclosed and accounted for any separate or side agreements or understandings that exist between the reinsurance agreement parties that would serve to reduce, offset or eliminate the reinsurer's obligations.

79. In cases where there is not significant insurance risk transfer and the disclosure and GAAP accounting do not reflect the true economic value of the transaction, supervisors should have the power to take corrective action that could include not allowing credit for the transaction as reinsurance and requiring restatement of the financial position where material.

Information sharing and supervisory cooperation

80. Effective supervision is enhanced through international cooperation among supervisors and sharing of information about the fitness & propriety of the individuals. Even with cooperation there is no guarantee that all cases of misuse of finite reinsurance will be uncovered. In accordance with IAIS insurance core principle 15 - *Enforcement and sanctions*, supervisors should have the power to take corrective action and, where needed, impose sanctions based upon clear and objective criteria that are publicly disclosed. Legislation should provide for sanctions against individuals who withhold information from the supervisory authority, provide information that is intended to mislead the supervisory authority or fail to provide information in a timely fashion.

81. In accordance with IAIS Core Principle 5 - *Supervisory cooperation and information sharing*, supervisors should cooperate and share information with other relevant supervisors, which can be helpful when reviewing finite reinsurance transactions. The IAIS has issued a *Supervisory Standard on the Exchange of Information* (2002), which applies particularly where restricted or confidential information is involved and provides guidance on some of the elements that an optimal information sharing agreement might include. The *IAIS Model Memorandum of Understanding* (1997) provides guidance on some of the elements that an optimal information sharing agreement might include, such as:

- the purpose of information exchange
- obligations to exchange information
- standard of professional secrecy to be exercised by the recipient supervisor in relation to confidential information received
- the degree and extent to which confidential information will be used by the recipient supervisor, including the onward transmission of information by the recipient supervisor to other government agencies in their jurisdiction
- the need for the express agreement of the supervisor supplying the information prior to use by the recipient supervisor for purposes other than those for which they gave their original agreement.

82. Please refer to Appendix VI for detailed examples of supervisory approaches by various jurisdictions.

Appendix I - Types of reinsurance

Non-life treaty

83. Reinsurance treaties are usually automatic arrangements in that the insurer does not have to make specific cessions in order to activate reinsurance protection. Exceptions to this general rule are special acceptances, a procedure by which risks that do not qualify for coverage under the terms and conditions of the treaty may be submitted to the reinsurer for specific underwriting evaluation and determination of any additional premium charge.

84. Treaties are also usually obligatory, in that the cedant is obligated to cede all business defined by the reinsurance agreement, and the reinsurer is obligated to accept all such business, subject to the terms and conditions of the contract. Surplus treaties are sometimes non-obligatory from the insurer's standpoint as the insurer may elect not to cede a specific risk, or to cede something less than the maximum cession permitted under the reinsurance contract provisions.

85. Treaty reinsurance usually applies to a broad segment of the insurer's overall book of business (e.g., all workers' compensation business, all commercial property business, all accident & health business, all aviation business, etc.). All sorts of segregations are possible, but the idea is to group together entire lines or classes of business. As long as the business to be reinsured is reasonably homogeneous in nature or exposed to loss arising from a common cause and written in sufficient volume it can be considered for treaty reinsurance. A sufficient volume of reinsurance is necessary in order to satisfy the reinsurers' need to collect reinsurance premiums that bear a reasonable relationship to the assumed liabilities. Treaty reinsurance is considered to be the most efficient and least expensive way of arranging for such transfers.

Non-life facultative

86. Facultative transactions, by their nature, are not obligatory with respect to either the cedant or the reinsurer. Facultative reinsurance involves the reinsurance of the exposures covered by a single policy, or sometimes only specific portions of a policy. The nature of the underwriting process and the kind and amount of data which are usually required by the facultative underwriter make this approach far less efficient and much more expensive to handle than treaty reinsurance.

87. Nevertheless, facultative reinsurance often plays a significant role in an insurer's overall reinsurance program. It is commonly used to enable the insurer to write risks that may be excluded under its reinsurance treaties, to generate additional capacity needed that is not fully accommodated under its treaties, or to accept risks requiring technical underwriting expertise beyond that which may be available in-house.

88. It is also possible to arrange reinsurance protection on a "hybrid" basis that contains obligatory and non-obligatory elements. Two commonly encountered facultative arrangements are:

a. Facultative obligatory

Facultative obligatory reinsurance or "open cover" is an arrangement pursuant to which the cedant may, at its option, cede certain defined risks to the reinsurer, which the reinsurer must assume, subject to the cedant's retention. This arrangement has both treaty and facultative elements. It is normally used to provide cover for risks that are irregular in incidence or to supplement a treaty that has limited capacity.

b. Semi-automatic facultative

Semi-automatic facultative reinsurance requires the reinsurer to accept certain defined risks of the reinsured, subject to the right of the reinsurer to reject liability for any of such risks within a stated period after submission. Like facultative obligatory reinsurance, semi-automatic facultative reinsurance is also a hybrid of both treaty and facultative reinsurance.

Life automatic

89. Automatic life reinsurance is similar to non-life “treaty” reinsurance. In automatic reinsurance, the ceding insurer is able to bind the reinsurer on a risk without submitting an application for reinsurance provided certain conditions are met. These conditions vary by agreement, but typically obligate the ceding insurer to keep retention on the life, limit the amount of insurance on a life that may be ceded, and limit the overall amount of insurance that may be in force on the life issued by all life insurers. The ceding insurer may be required to notify the reinsurer of automatic reinsurance arrangements through specific cessions (i.e., “cession reporting”), otherwise it is called “bordereau reporting.” This type of reinsurance will be typically offered to broad segments of an insurer’s business, such as all issues of a specified policy form.

Life facultative

90. Life facultative reinsurance is similar to non-life facultative reinsurance or to “special acceptances” reinsurance under treaty reinsurance. However, facultative obligatory reinsurance and “semi-automatic” reinsurance will rarely be encountered in the life and health market.

Appendix II - Forms of reinsurance

1.0 Non-life

91. Whether on a treaty basis or a facultative basis, there are two forms of reinsurance, proportional (also often referred to as pro-rata reinsurance) and non-proportional (often referred to as excess of loss reinsurance).

1.1 Non-life proportional

92. Under proportional reinsurance the insurer and the reinsurer share in an agreed ratio all premiums, losses, and loss expenses arising out of the original business covered under the reinsurance agreement. There are two forms of proportional reinsurance: quota share and surplus share.

1.1.1 Quota share

93. This type of reinsurance was the earliest form of proportional reinsurance and is still widely used wherever appropriate. Quota share reinsurance arrangements agreement represent a sharing of all business in a fixed ratio, or proportion. A 50% quota share agreement is one in which premiums, losses, and loss expenses are shared equally, half being retained by the insurer and half being ceded to the reinsurer. A 70% quota share would involve a 70% share ceded to the reinsurer, with the remaining 30% retained by the insurer.

94. In practice, a \$500,000 insurance policy remitting annual premiums of \$1,000 under a 50% quota share agreement, would entitle the insurer and reinsurer to \$500 of the annual premiums, and liability of up to \$250,000 on a claim. The insurer's needs and objectives, and the amount of proportional capacity available in the reinsurance marketplace at the time of placement, will determine the percentage share it will retain for its own account. Quota share treaties are invariably obligatory contracts. The reinsurance contracts will contain a stipulated limit of liability with respect to any single original policy. There will ordinarily be certain forms of coverage or classes of business that are excluded under the terms of the contract. These may not be ceded to the reinsurer without prior review and approval (usually referred to as a special acceptance) by the reinsurer. The reinsurance premium is simply the reinsurer's proportional share of the insurer's original premium for all business ceded. The reinsurer's share of the insurer's acquisition costs and general operating expenses associated with the ceded business is recovered by the insurer via a ceding commission allowance, a deduction from the reinsurer's share of the gross original premium.

1.1.2 Surplus share reinsurance

95. This type of proportional reinsurance is a variation on the quota share concept. Instead of sharing every policy on the basis of a never-changing fixed ratio, a surplus agreement permits the insurer to cede varying amounts or percentage shares of each original policy to the reinsurer. The amounts ceded are still subject to a stipulated minimum retention and maximum cession.

96. In Practice – In a three-line surplus agreement, the insurer would transfer three times the amount of liability retained. On a \$40,000 policy, the insurer would retain \$10,000 (1/4) of the liability and the reinsurer would assume \$30,000 (3/4). In the event of a total or partial liability claim, the insurer and reinsurer would maintain the same percentages for claim

resolution (the percentages and amount assumed and ceded may differ among reinsurance contracts).

97. Once a cession has been made to the surplus treaty, premiums, expenses and losses will be shared proportionally between the insurer and the reinsurer.

1.2 Non-life non-proportional

98. Non-proportional reinsurance occurs when the reinsurer indemnifies the ceding entity against the amount of loss in excess of the ceding insurer's specified retention. Non-proportional reinsurance, as the name implies, does not contemplate the sort of sharing of premium, losses, and loss expenses that occurs under proportional structures. Instead, the reinsurer assumes liability for only such loss as exceeds the insurer's stipulated net retention (or, in the case of a layered excess structure, loss which exceeds the combined limit of liability of all underlying layers of reinsurance plus the insurer's retention). The three types of non-proportional reinsurance include:

1.2.1 Excess per risk

99. This reinsurance method provides indemnification to the ceding insurer for each covered risk up to a predetermined limit. The ceding insurer is required to meet the obligations of the claim up to a preset dollar amount before the reinsurer becomes liable.

100. In practice, an insurer that utilises the excess per risk reinsurance method may cede amounts exceeding the first \$100,000 of claim liability on a policy to a reinsurer. That reinsurer agrees to accept this risk, but limits their total liability for this policy to \$900,000. In effect, a claim on this policy for \$850,000 would be settled from \$100,000 from the original insurer and \$750,000 from the reinsurer.

1.2.2 Aggregate excess of loss (stop-loss)

101. This method provides reinsurer indemnification to the ceding insurer for the aggregate amount of losses during a specific time frame up to a predetermined limit or percentage.

102. In practice, an insurer decides to cede all insurance losses that exceed 75% of its subject premiums for the calendar year ended 12/31/XX. The reinsurer agrees to assume this liability, but limits responsibility at \$2,500,000. In effect, if the reinsurer incurred losses totalling 80% of the subject premiums, the reinsurer would be liable for 5% of the losses up to \$2,500,000 (for these situations, the ceding insurer will be expected to provide documentation to the reinsurer of the premiums collected and the losses sustained).

1.2.3 Per occurrence (catastrophe) excess of loss

103. This reinsurance method is identical to the 'Excess per Risk of Reinsurance' indicated above, except that the policies are designed to account for an accumulation of losses from a single catastrophic event.

104. In practice, an insurer may decide to cede all insurance losses exceeding \$4,000,000 that result from a natural catastrophic event. One reinsurer who accepts the risk may limit liability at \$25,000,000. In the event of an earthquake that causes losses of \$29,000,000, the original insurer would be responsible for the first \$4,000,000 in losses and the reinsurer would be responsible for \$25,000,000. As catastrophic events can result in significant losses, the insurer may find it necessary to cede parts of the risk to different reinsurers, or the assuming reinsurer may cede some of the assumed risk to others (retrocession.)

105. In non-proportional reinsurance the reinsurer does not assume responsibility for a proportional share of all losses. Therefore the distribution of premium will not be on a

proportional basis. Non-proportional reinsurance is commonly arranged in a series of layers, the first of which attaches immediately to the excess of the insurer's retention, followed by as many additional layers as are necessary to generate the required total amount of capacity (per risk), or to afford such catastrophe (per occurrence) or aggregate (net retained loss) protection as deemed prudent and sufficient, given the size, geographic distribution and nature of the insurer's portfolio of business.

2.0 Life

106. There are two forms of life reinsurance: proportional and non-proportional.

2.1 Life proportional

107. Proportional life reinsurance usually guarantees the same period of coverage as for the original policy and an entire sharing of fortunes between the ceding insurer and the reinsurer. The distribution of the risk between the ceding insurer and the reinsurer as determined by the treaty upon its reception remains typically unchanged until the termination of the original policy.

108. As a general rule life insurers establish limits of retention. These limits, which may vary by age at issue, plan, or substandard classification, are the amounts - with the objective to stabilize the insurer's results with respect to its retained portfolio - which the insurer has decided it can safely retain at its own risk for newly issued policies. A schedule of limits of retention also includes limits for supplemental benefits such as disability and accidental death. These limits may or may not be independent of the limits for life insurance benefits. With these limits of retention established for all the forms of coverage issued, an insurer makes reinsurance arrangements with one or more reinsurers to take care of those applications on which the amounts are in excess of the established retention. Using the above methodology, proportional life reinsurance may be written on a risk premium, coinsurance, coinsurance with funds withheld or modified coinsurance basis.

2.1.1 Risk premium, or in some jurisdictions yearly renewable term (YRT)

109. Reinsurance arrangements written on this basis transfer the mortality risk to the reinsurer. For every age, plan, and policy year, there is a certain reserve per \$1,000 of insurance. In calculating the insurer's available surplus capital, this is the liabilities that are deducted from assets to arrive at the insurer's available surplus capital. Since this reserve amount is already in the insurer's liabilities, it is clear that if the insurer is called upon to pay more than this amount, only the excess over the reserve needs to be taken from the insurer's available surplus capital. In the event of a death claim, assets are reduced by the face amount paid, liabilities are reduced by the reserve amount, and the excess of the face amount over the reserve comes from its available surplus capital. This excess is called the "policy net amount at risk." In the reinsurance agreement the ceding insurer and the reinsurer agree upon how the policy net amount at risk will be apportioned between them.

110. In practice, the ceding insurer would prepare a schedule of the net amounts at risk for each policy year. The reinsurer would develop a schedule of yearly renewable term premium rates for reinsurance on the ceding insurer's schedule. The ceding insurer would pay the reinsurer the established premiums for the appropriate net amounts at risk each year. In the occurrence of a claim, the reinsurer would remit payment for the assumed portion of the policy's net amount at risk.

111. Although the policy net amount at risk will decline over time as the policy reserves increase, it is common for the parties to agree to make adjustments only at agreed intervals to ease administration and lower processing costs. This reinsurance method is widely used

because it reduces reinsurance to its fundamentals and provides a very flexible mechanism for satisfying the insurer's reinsurance needs.

2.1.2 Coinsurance

112. This type of reinsurance is considered to be the most comprehensive basis since it usually involves transfer of a portion of all the risks inherent in the original business on a quota share or excess of retention basis from the ceding insurer to the reinsurer.

113. In this type of reinsurance, the insurer and the reinsurer share a portion of the risks under the original insurance policy. The reinsurer receives a portion of the gross paid policy premiums based on the amount of risk assumed and establishes a correlating reserve. In addition to fulfilling the assumed portion of the claim, the reinsurer is also required to reimburse the insurer for any other benefits provided under the policy (i.e., policy dividends, commissions, premium taxes, etc.). The reinsurer also provides the ceding insurer with a commission to cover the marketing, underwriting and distribution aspects of the policy.

114. In practice, if the insurer desired to cede 50% of a \$500,000 life insurance policy with annual premiums of \$1,000, the reinsurer would receive \$500 (50%) of the premiums collected. The reinsurer would establish an adequate reserve on their books and pay the insurer for the share of commission costs and benefits provided. In the event of the death of the policyholder, the reinsurer would be required to remit \$250,000.

2.1.3 Coinsurance with funds withheld

115. A slight variation of this reinsurance method may occur if assets are retained by the insurer. Under this method, the insurer withholds assets supporting the reserves on the ceded portion of the business and the insurer sets up an interest-bearing amount payable to the reinsurer.

116. Under these circumstances, the ceding insurer may wish to retain control of the funds arising from its own policies either to maximise its own investment returns, or as security against the event that the reinsurer's ability to discharge its obligations to the ceding insurer becomes impaired.

117. In many countries, for example in all major Continental West European countries, legal provisions or supervisory regulations require the ceding insurer to set up and to keep reserves on his gross business as if he bought no reinsurance coverage.

2.1.4 Modified coinsurance

118. Modified coinsurance, or 'modco', differs from coinsurance and coinsurance with funds withheld agreements, in that the portion of policy assets and reserves normally entitled to the reinsurer are actually retained by the ceding insurer. In addition to the transactions required in a coinsurance arrangement, a "reserve adjustment" must be calculated. For each accounting period, the change in reserves is first determined. If these have increased, the amount of the increase, less interest on the reserve for the period, if positive, will be payable to the ceding insurer. If negative, the amount of the decrease, plus interest on the reserve, will be payable by the cedant to the reinsurer.

119. In practice, using the same example for the coinsurance method, if the insurer desired to cede 50% of a \$500,000 life insurance policy with annual premiums of \$1,000, the insurer and reinsurer would each receive \$500 (50%) of the premiums collected. The insurer would establish the full portion of the reserve for this policy and retain all funds held to support the reserve. Each year, the reserve basis would be determined, and after considering the impact of interest on the funds held by the insurer, the reinsurer would remit or receive payment to cover the increase/decrease in reserve. In the event of the death of

the policyholder, the reinsurer would be required to remit \$250,000, net of the reserve which the insurer has been holding on the reinsurer's behalf.

120. The rationale for this procedure is that the ceding insurer holds the policy reserves and the corresponding assets on the reinsured business and, therefore, is responsible for the portion of the reserve increase derived from interest on the policy assets. Any other fluctuations in the reserve would be the responsibility of the reinsurer. Establishing the reserve adjustment interest rate is a complex part of the treaty negotiations. The formula for calculating the interest rate is typically set forth in the reinsurance agreement.

2.2 Life non-proportional

121. Non-proportional reinsurance provide for aggregate losses rather than indemnification on individual policies. Typically, these reinsurance policies are written annually to protect from excessive losses. This may be written as catastrophe or stop-loss.

2.2.1 Catastrophe

122. This provides for payment by the reinsurer when the ceding insurer's aggregate net retained claims resulting from a single accidental event exceed the insurer's retention under the reinsurance agreement. Commonly the reinsurer pays something less than 100% of such excess, the balance being retained by the insurer, and a limit is placed on the amount the reinsurer will pay on any one catastrophe. An annual limit may also be placed on the total amount to be paid by the reinsurer. The coverage may be purchased on the ceding insurer's entire portfolio of retained risks or on any readily definable category, such as all retained individual risks, a particular group case, a category of group cases, etc. Normally, both the regular life insurance risk and the accidental death risk will be included.

123. In practice, the insurer cedes to a reinsurer 100% of aggregate, entire portfolio claims caused by a natural catastrophic event that exceed \$5,000,000. The reinsurer agrees to accept the risk with a limit of 2 claims per year and an annual dollar limit of \$10,000,000. In the event of an earthquake that resulted in life claims totalling \$7,500,000, the insurer would be responsible for \$5,000,000 and the reinsurer would be responsible for \$2,500,000. If a second natural catastrophe occurred throughout the same calendar year, the reinsurer liability would be limited to \$7,500,000.

2.2.2 Stop-loss

124. The term stop-loss reinsurance is commonly used to describe coverage for a collection of insurance risks under which, once the ceding insurer pays the total amount of all claims in a specified period, usually a calendar year, up to a total aggregate limit determined in advance for the period, the reinsurer will reimburse a specified proportion (e.g., 90%) of the amount in excess of the aggregate retention for the period, subject to a maximum reinsurance limit. In practice, the maximum amount of claim on any one life is usually "warranted" by the ceding insurer. Any policy amounts issued in excess of the warranted maximum are reinsured conventionally.

125. In practice, the insurer wishes to cede the risk that life insurance claims for the calendar year will not exceed \$2,000,000. The reinsurer agrees to accept the risk, and agrees to pay 90% of all claims that exceed the \$2,000,000 threshold. At the end of the calendar year, the reinsurer would receive documentation of the current-year paid claims from the ceding insurer, and remit any required amounts based on the stated liability.

Appendix III - Definitions

IAIS Glossary

126. Throughout this paper a number of definitions and key words will be used in describing the concepts of reinsurance and its supervision. Some are described here; for more general insurance terminology, refer to the *IAIS Glossary of Terms*.

Finite reinsurance

127. Finite reinsurance (also known in some jurisdictions as financial reinsurance, structured reinsurance, non-traditional reinsurance, loss mitigation reinsurance) is a generic term that, for purposes of this paper, will be used to describe an entire spectrum of reinsurance arrangements that share limited risk for a limited amount of premium. There are a number of other definitions of finite or financial reinsurance. The traditional role of “financing reinsurance” is explained in paragraph 27. Furthermore, paragraph 43 provides guidance concerning the distinction between a reinsurance treaty and a loan or deposit. In some jurisdictions there is a distinction between finite reinsurance and financial reinsurance. In some jurisdictions finite reinsurance is a specialised form of limited liability reinsurance whereby the financial and strategic motivations of the reinsured to effect the transaction take precedence over the insurance risk transfer motivation. Although there is no accepted global definition of “finite reinsurance,” a typical transaction may include, but not be limited to provisions for aggregating risk, for aggregating limits of liability, for aligning the interests of the insurer and reinsurer, and for explicitly recognising the time value of money. A detailed review of the entire reinsurance contract and any side agreements is necessary to determine if contracts containing such clauses do transfer risk and are in fact reinsurance contracts when considered in their totality. Usually, one (or a number) of the following characteristics will be present within finite reinsurance contracts although some of them may be present in traditional reinsurance as well:

- insurance risk transfer and financing are combined and the time horizon of money is emphasised in the contract
- assumption of limited risk by the reinsurer (aggregate limit of liability, blended cover)
- transfer of volatility (e.g., multiple lines of business, multiple years of account and multiple year contract terms)
- inclusion of future investment income in price of contract (recognition of time value of money with funds withheld)
- potential profit sharing between parties
- pricing determined by ceding entities' results and not reinsurance pricing cycle terms and pricing are typically determined in advance
- bulk reinsurance (i.e. administration of reinsurance is done on a bulk basis rather than on a traditional seriatim policy-by-policy basis, for a block of in-force business).

Funds withheld

128. Assets that would normally be paid over to a reinsurer but are withheld by the cedant to permit regulatory credit for non-admitted reinsurance, to reduce a potential credit risk, to retain control over investments or to assist in realising the time value of money in jurisdictions that do not allow discounting or equalisation reserves.

Reinsurer

129. A reinsurer is an insurer that offers protection through the sale of a reinsurance contract to a risk-transferring policyholder who is an insurer. If the risk-transferring policyholder a (re)insurer itself, the risk-assuming insurer is called the reinsurer, and the insurance risk transfer is known as (retro)cession.

Side agreements

130. Formal or informal agreements (oral or written) that are not part of the reinsurance contract that essentially modify a reinsurance arrangement or alter the insurance risk transfer inherent in the contract.

Unbundling (bifurcation)

131. For accounting purposes unbundling is the separation of a reinsurance contract into financing and insurance risk transfer components.

Other definitions of finite reinsurance (for reference)

A.M. Best

132. Any reinsurance contract that has a stated limit of exposure is finite in nature (for risk transfer, we rely on the company's experts to determine, define and obtain necessary regulatory approvals).

American Institute of Certified Public Accountants (AICPA)

133. The AICPA, as provided in a Financial Accounting Standards Board (FASB) Alert from April 2005, "*Accounting by Non-insurance Enterprises for Property and Casualty Insurance Arrangements That Limit Risk*") defines finite reinsurance in the following manner:

134. "Finite reinsurance contracts are contracts that transfer a clearly defined and restricted amount of insurance risk from the cedant to the reinsurer, and the cedant retains a substantial portion of the related risks under most scenarios. Nevertheless, under certain finite contracts there may be a reasonable possibility that the reinsurer will incur a loss on the contract."

APRA (Australia)

135. Limited insurance risk transfer arrangements: limited insurance risk transfer arrangements typically do not involve significant transfer of insurance risk over the life of the arrangement between the insurer and the reinsurer. An arrangement may involve one contract, or a combination of two or more individual contracts and/or side letters.

European Commission

136. The European Commission *Directive on Reinsurance* has the following definition:

137. "Finite reinsurance means reinsurance under which the explicit maximum loss potential, expressed as the maximum economic insurance risk transferred, arising both from a significant underwriting risk and timing insurance risk transfer, exceeds the premium over the lifetime of the contract, for a limited but significant amount, together with at least one of the following two features:

- i. explicit and material consideration of the time value of money
- ii. contractual provisions to moderate the balance of economic experience between the parties over time to achieve the target insurance risk transfer.

General Reinsurance Corporation (US):

138. Financial quota share: a quota share reinsurance transaction that elicits significant financial benefits beyond insurance risk transfer benefits through the use of ceding commissions, potential investment income sharing and liability limits. (Source: www.genre.com.)

139. Financial reinsurance: a specialised form of limited liability reinsurance whereby the financial and strategic motivations of the reinsured to affect the transaction take precedence over the insurance risk transfer motivation. Also known as finite-risk reinsurance and non-traditional reinsurance. (Source: www.genre.com.)

Gill & Roeser, Inc. (definition for Reactions)

140. Financial reinsurance: a form of reinsurance, which considers the time value of money and has loss containment provisions. One of its objectives is the enhancement of the cedant's financial statements or operating ratios, e.g., the combined ratio; loss portfolio transfers and financial quota shares are examples. (Source: www.gillroeser.com.)

141. Finite risk reinsurance: a form of retrospectively rated reinsurance in which the reinsurer's ultimate liability over the term of the contract is typically limited to no more than 300 percent of the premium ceded. Its primary objectives are to stabilise earnings and reduce reinsurance costs. (Source: www.gillroeser.com.)

Insurance Information Institute (US)

142. Finite risk reinsurance: contract under which the ultimate liability of the reinsurer is capped and on which anticipated investment income is expressly acknowledged as an underwriting component. Also known as Financial Reinsurance because this type of coverage is often bought to improve the balance sheet effects of statutory accounting principles. (Source: www.iii.org.)

Prudential plc (UK)

143. Financial reinsurance: often refers to a reinsurance operation concluded primarily to stabilise the balance sheet of the ceding insurer and provide capital support. There is no clearly accepted definition of what financial reinsurance involves. (Source: www.prudential.co.uk.)

144. Finite reinsurance: insurance and reinsurance policies where the aggregate risk to the insurer or reinsurer are capped at a given ceiling. Finite risk contracts are usually long-term contracts, and include a profit-sharing mechanism. (Source: www.prudential.co.uk.)

Reinsurance Association of America

145. Finite Reinsurance (non-traditional reinsurance, limited risk reinsurance, and financial reinsurance): a term used to describe a broad spectrum of treaty reinsurance arrangements, which provide reinsurance coverage at lower margins than traditional reinsurance, in return for a lower probability of loss to the reinsurer. This reinsurance is often multi-year and financially oriented, and can provide a means of financial management beyond that usually provided by traditional reinsurance. (Source: www.reinsurance.org.)

Reinsurance Group of America, Incorporated - RGA Re, Life

146. Financially motivated reinsurance: reinsurance designed to meet a financial objective of an insurer. For example, financial reinsurance can aid in an insurer's tax planning efforts or can provide capital in order to support an insurer's future growth (also known as financial reinsurance, asset-intensive reinsurance or non-traditional reinsurance). (Source: www.rgare.com.)

Appendix IV - Sample agreements of finite reinsurance

147. The following are examples of the issues raised by finite reinsurance which have been provided by various jurisdictions and are labelled by specific jurisdiction, to assist in understanding the issues. Refer also to Appendix V which provides examples of accounting rules in specific jurisdictions. Note that some of the concepts illustrated in the non-life examples, such as aggregate stop loss, would also apply to life reinsurance. In some jurisdictions accident and health business can be classified as either life or non-life business.

Non-life reinsurance examples

Time and distance policy (European Union)

148. This treaty represents the most elementary form of a first-generation financial treaty and is characterised by payments of claims at agreed dates and for agreed sums, independently from the actual technical performance of the treaty.

149. In particular, under a “time & distance” contract, on 1st January of the year X the ceding insurer C transfers undiscounted provisions for claims outstanding for an amount of 100 to the reinsurer R. The reinsurer undertakes to make five deferred payments of 20 each to the ceding insurer as a reimbursement of claims paid.

150. If we assume a 5% discount rate, the advance single premium that C will pay to R at the date when the reinsurance contract becomes effective will be 86.6, calculated according to the following table:

Pattern of payments

Years	Advance single premium	Claims paid	Interests	Balance of claims outstanding
X 1 January	86.6			
31 December		20	4.3	70.9
X1 31 December		20	3.6	54.5
X2 31 December		20	2.7	37.2
X3 31 December		20	1.8	19.0
X4 31 December		20	1.0	0
Total	86.6	100	13.4	0

151. It comes out from the above that in the year X the ceding insurer transfers 100 of claims outstanding to the reinsurer against payment of a premium of 86.6, with a net profit of 13.4 and an increase of the net capital for an equal amount and a consequent improvement of the solvency margin as well as of the representation of technical provisions.

152. It is worth underlining that the reinsurer does not bear any underwriting or timing risk, since all the payments have been agreed in advance. R will only have to invest the premium collected in advance in assets yielding at least an amount equal to the above-mentioned discount rate. The interest rate risk, arising out of the difference between the cost of money and the return on investments, is one of the risks typical of banking and financial operators and therefore is not an insurance risk.

153. These treaties cannot be taken into account for technical purposes, since there is neither a transfer of the insurance risk nor the consequent possibility of economic losses for the reinsurer.

Non-life retrospective cover - adverse development cover (*European Union*)

154. These contracts address old year liabilities and permit management to focus on ongoing business. They can include transfer of claims management.

155. This example of an adverse loss development cover is similar to the Time and Distance example, but with some changes in reinsurance contract terms which substantially modify its result.

156. Under this contract, on 1st January of the year X, the ceding insurer transfers undiscounted provisions for claims outstanding for an amount of 100 to the reinsurer.

157. The maximum amount of aggregated claim is 110, therefore covering the potential negative result of provisions for claims outstanding of 10. No limitations have been envisaged to the amount of claims that can be paid in each year.

158. If we assume a 5% discount rate, the premium will be 86.6 Euro.

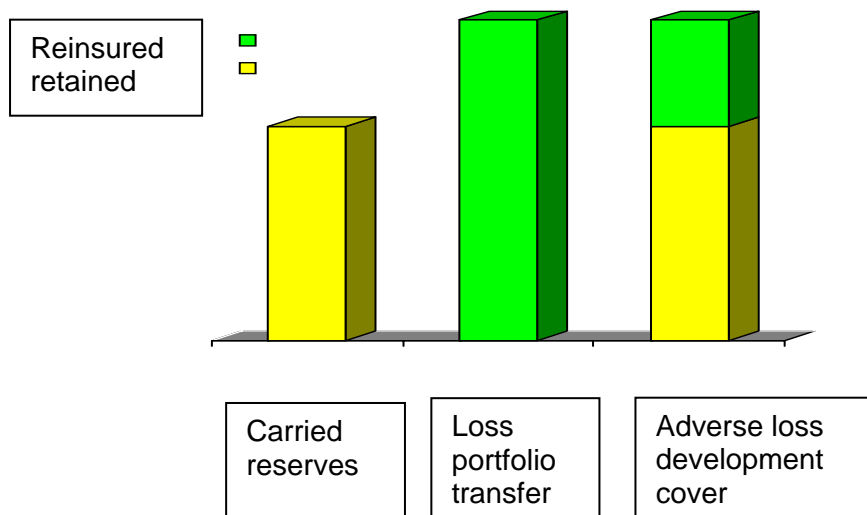
159. However if the amount of claims paid during each year were 10% higher and the ceiling of aggregate claim were overcome (110 Euro), the reinsurer would obtain a negative result of 11,2 Euro, as shown below in detail:

Pattern of payments

Years	Advance single premium	Claims paid	Interests	Balance of claims outstanding
X 1 January	86.6			
31 December		22	4.3	68.9
X ₁ 31 December		22	3.4	50.3
X ₂ 31 December		22	2.5	30.8
X ₃ 31 December		22	1.5	10.3
X ₄ 31 December		22	0.5	(11.2)
Total	86.6	110	12.2	---

160. Differently from the contract mentioned in the first example, in this case the reinsurer assumes both the underwriting risk and the timing risk. In fact the above negative result is made up of 1.2 (13.4-12.2) due to the loss of interests resulting from the faster pattern of payment (timing) and 10 (110-100) due to the adverse development of claims (underwriting).

161. However, given that from some aspects this contract is not in line with the correct accounting principles (i.e. the reinsurer immediately pays the ceding undertaking future investment income, with the consequent increase of operating results and the possible distribution of profits to shareholders).



162. The reinsurance contract can include transfer of claims management, which requires that the reinsurer knows the projected payout pattern of the claims as the reinsurer runs the risk of payments that are more rapid than expected.

Non-life retrospective cover - loss portfolio transfer (LPT) (US GAAP Guidance)

163. The following example should be understood as a theoretical description of the mechanics and effects of a LPT which is always dependent on the specific local accounting treatment in force in the relevant jurisdiction, e.g. according to US GAAP the profit as shown in the example had to be spread over the period of uncertainty regarding the underlying losses.

164. Primary (ceding) insurer increases its technical provisions for liability business by 600 monetary units. Of those 600, it cedes 300 to a reinsurer, which receives a premium of 200. The cedant deducts this amount from its premium income in its income statement.

Income statement	Without loss portfolio transfer	With loss portfolio transfer
Earned premiums	1000	800
Paid losses	(100)	(100)
Increase in loss reserves	(600)	(300)
Underwriting expenses	(350)	(350)
Technical result	(50)	50
Investment income	50	50
Overall result	0	100

Balance sheet			
Assets	Liabilities	Assets	Liabilities
2000		1800	
Loss reserves	600		300
Other debt	1100		1100
Equity	300		400

Key financial ratios		
Loss ratio	70%	50%
Expense ratio	35%	43.75%
Combined ratio	105%	93.75%
Solvency margin	30%	50%

An empirical system for verifying the transfer of the underwriting risk and the timing risk

165. Within the wider framework of alternative instruments for the transfer of risks the last few years have seen the spread of so-called “finite” treaties, structured on an individual basis by the reinsurer in order to answer to the specific requirements of the ceding insurer.

166. The main characteristic of these contracts is that, when determining the premium, they take mainly or exclusively into account the financial aspect, that is the value of money over time, with a predetermined or reduced transfer (or no transfer at all) of the portfolio insurance risk to the reinsurer.

167. Generally speaking, from the point of view of a correct technical approach, it would certainly be correct to establish that if the treaty does not actually reduce the ceding insurer's risk of portfolio, i.e. if there is no possibility of an economic loss for the reinsurer, a reduction of the solvency margin cannot be allowed if the ceding insurer's risks, and therefore its probability of ruin, remain unchanged.

168. From an accounting point of view it follows that the treaty should bear no effects on the balance on the technical account, on the solvency margin and on the representation of technical reserves.

169. In light of the above and of the fact that any type of reinsurance treaty (either proportional or not) can or cannot transfer the insurance risk by means of adequate provisions in reinsurance contract terms, as it is self-evident from the simple examples

quoted, it is necessary to examine each reinsurance contract on an individual basis and in the totality of insurance risk transfer between the parties.

170. In this regard the NAIC has adopted an empirical system (the so-called “risk transfer test”) capable of verifying the possible results of each treaty for the purpose of establishing whether it is “reasonably possible” that the reinsurer may realise a “significant loss” resulting from the transfer of the insurance risk, that is to say of both the underwriting and the timing risk.

Non-life prospective - finite quota share (*United States*)

171. Regulatory concerns about the following example include the fact that the insurer has been experiencing aggressive growth (written premium has increased five fold in four years). The average annual increase over the past three years is 73%.

172. The historical data used by the insurer no longer appears to be valid for projecting future expected losses. The mean historical loss ratio is about 77% with a standard deviation of 9%.

Contract provisions:

Quota share percentage:	60% capped at 92.5% of ultimate loss ratio
Reinsurer's margin	8% of subject premium
Funds withheld account	Interest credited at 2.5%
Commission	Sliding scale with provisional = 39% (min = 29% at 68% LR and max = 49% at 47% LR)
Subject premium	Approximately \$ 170 million
Commutation	Insurer can commute only with the consent of the reinsurer, all ceded ultimate net loss outstanding.

173. The insurance risk transfer analysis demonstrates that there is just a little over 10% (10.2% to be exact) chance that the reinsurer's loss is 10% or more, but never more than 13.5%. The reinsurer's maximum loss is about 13.5% when the loss ratio is 92.5% or more and the probability of which is approximately 6%. On average, the present value (PV) of the reinsurer's profit is 4,149, which is about 7% of the ceded premium less provisional commission. Also on average, the PV of the reinsurer's profit is 4,149, which is 5% of PV of the funds withheld balance of 75,653. The expected reinsurer deficit (ERD – defined as the average reinsurer deficit over all values where a deficit exists) is –7%.

174. The regulatory concern is that this is a reinsurance contract that appears to just meet the auditing and actuarial “rule of thumb” of the 10-10 rule. In addition, if the ultimate loss ratio is over 92.5%, the cedant pays all of those losses. When an insurer is growing at 73% annually, the loss ratios will generally deteriorate. Therefore, it can be expected that loss experience will deteriorate, but the amount cannot be quantified. The insurer receives immediate surplus relief and additional capacity which enables the cedant to write even more business.

Non-life prospective – excess of loss (*United States*)

175. The following example concerns a cedant ceding business to an unauthorized reinsurer with only \$ 6 million in surplus as of 12/31/2003. The cedant also was unable to provide a financial statement of the reinsurer as of 12/31/2002 even though coverage inception on 1/1/2003. The cedant's mean historical loss ratio is about 84% with a standard deviation of 5%.

Contract provisions:

Type	Excess layer for losses incurred in 2003
Subject premiums	Approximately \$ 800 million.
Ceded premiums	\$ 35 million
Attachment point	65% of ultimate loss ratio
Maximum ceded layer %	12% but not in excess of \$ 110 million
Funds withheld account	Interest credited at 6%
Agreement date	September 28, 2003

176. The insurance risk transfer analysis reveals that there is a 99.5% chance that the reinsurer will lose 10% or more. The probability that the reinsurer profits is extremely remote. Regulatory concerns for this reinsurance contract include the following:

- reinsurer's surplus is only \$ 6 million while the maximum ceded amount is \$ 115 million
- the reinsurer is virtually guaranteed a loss, why would they write the cover (are there any side agreements?)
- the ceding insurer attempted to write the reinsurance contract even though there should have been many obvious concerns about the viability of the reinsurer (including no documentation of underwriting files, correspondence, etc.

Non-life prospective cover- aggregate stop loss (*United Kingdom*)

177. An insurer (Insurer A) had a wholly owned subsidiary (Subsidiary B), based in another jurisdiction. In late 1999 it became apparent that Subsidiary B's results for the year were likely to be worse than expected. The directors sought ways to improve them. They entered into a stop loss agreement (SLA) with a reinsurer (Reinsurer C). In parallel, however, Insurer A gave Reinsurer C a letter of guarantee undertaking to repay, with interest, any net loss which Reinsurer C sustained under the SLA. Ultimately, Subsidiary B claimed 22.9 million under this contract.

178. Insurer A did not want to have to reflect the letter of guarantee in its own financial statements and, before the close of its own financial year, it replaced this with retrocession agreements and a profit commission waiver, to the benefit of Reinsurer C. It also issued a letter of confirmation that these agreements and the SLA should be viewed as components of a single transaction, and that Insurer A would compensate Reinsurer C for all the monies advanced to Subsidiary B, plus interest and a 1.5% management fee. The arrangements therefore were in effect a loan from Reinsurer C to Subsidiary B, though they were accounted for as reinsurance.

179. In March 2000, Insurer A announced a proposed merger with Insurer D, and it was agreed that full repayment of Reinsurer C should be made before the merger date. To achieve this, further deceptive arrangements involving other insurers were used.

180. There was also in early 2000 a cash injection into Subsidiary B from Insurer A disguised as reinsurance, and falsely dated, in order to avoid taxes.

181. As a result of these arrangements, six directors of Subsidiary B were banned by one jurisdiction.

Non-life prospective cover – multi-year stop loss (*Australia*)

182. One jurisdiction cited a large multi year stop loss reinsurance contract that was designed to spread losses over a 5-year period with a fund that would attract interest and pay back any surplus at the end of the period. It looked to contain significant insurance risk transfer - \$200 million in fact. The expectation was that it would reduce volatility; however two large losses (one in 1999 and the other in 2001) caused the limit to be exceeded and proved embarrassing for the reinsurer. There was a clause that allowed for the cancellation of the reinsurance contract should the CEOs of the parties change during the contractual period. This could be an example where a “hand shake” replaced a side letter. The business relationship result has just reached break-even in 2005 after at least 2 very profitable years.

Life reinsurance examples

183. In the examples below, a ceding company seeks support for the financing of new business by realising the future profits on a closed book of business. To this end XYZ Re, a reinsurer, “purchases” the portfolio through an indemnity proportional reinsurance or through a block assumption transaction. The subject business consists of a portfolio of term assurance policies.

184. XYZ Re purchases this portfolio at a price of CU1.5 million and receives an initial risk premium of CU1 million that is reduced over 20 years by 5 per cent per annum from lapses and deaths. Since the contractual partner of the policyholder is still the primary insurer, ABC Life, who has to incur the costs for general and claims administration, XYZ Re refunds to ABC Life 10 per cent of the premium as reinsurance commission on an annual basis.

185. To maintain ABC Life’s commitment to a proper administration of claims a special form of profit participation is agreed. Under this profit-sharing scheme, ABC Life can retrieve the portfolio and generate profits on its own account until the expiration of the time limit agreed if XYZ Re has realised a satisfying profit. This is done using a so-called Experience Refund, also called a Deficit Account. Importantly, the Experience Refund can only be positive or zero and it cannot result in a required additional payment by ABC Life to XYZ Re. It would be a regulatory concern if the treaty allows ABC Life (cedant) to make additional payment to XYZ Re (reinsurer) when there is a negative experience refund, which will limit the amount of losses suffered by the reinsurer, as indicated in example 2 below.

Example 1 – Losses based on projected for portfolio

Calendar Year	Reinsurance Premium	Purchase Price	Reinsurance Commission	Annual Loss Ratio	Annual Claims	Cash flows	Experience Refund
1	1,000,000	-1,500,000	-100,000	15.0%	-150,000	750,000	-996,462
2	950,000		-95,000	20.0%	-190,000	665,000	-533,181
3	902,500		-90,250	25.0%	-225,625	586,625	-106,882
4	857,375		-85,738	30.0%	-257,213	514,425	285,522
5	814,506		-81,451	35.0%	-285,077	447,978	646,947
6	773,781		-77,378	40.0%	-309,512	386,890	980,151
7	735,092		-73,509	45.0%	-330,791	330,791	1,287,742
8	698,337		-69,834	50.0%	-349,169	279,335	1,572,195
9	663,420		-66,342	65.0%	-431,223	165,855	1,766,915
10	630,249		-63,025	70.0%	-441,175	126,050	1,941,017
11	598,737		-59,874	75.0%	-449,053	89,811	2,096,298
12	568,800		-56,880	80.0%	-455,040	56,880	2,234,446
13	540,360		-54,036	85.0%	-459,306	27,018	2,357,046
14	513,342		-51,334	90.0%	-462,008	0	2,465,588
15	487,675		-48,767	100.0%	-487,675	-48,767	2,536,133
16	463,291		-46,329	120.0%	-555,949	-138,987	2,522,364
17	440,127		-44,013	140.0%	-616,177	-220,063	2,426,847
18	418,120		-41,812	170.0%	-710,805	-334,496	2,208,198
19	397,214		-39,721	200.0%	-794,429	-436,936	1,868,857
20	377,354		-37,735	270.0%	-1,018,855	-679,236	1,253,659
Total	12,830,283	-1,500,000	-1,283,028	70.0%	-8,979,081		

Note: Loss ratios are calendar year losses (that increase as portfolio ages) divided by calendar year premiums (that decrease over time due to lapses and deaths).

186. The examples used here are based on the assumption that XYZ Re deducts 15 per cent of the premium for a risk and expense charge. The Experience Refund works here as follows:

- In the first year, the initial purchase price of CU1.5 million is increased by a fixed contractual 8 per cent interest charge (sometimes called a capital charge) and XYZ Re's first year result is deducted (i.e. reinsurance premium less 15% less commissions less claims plus interest charge assuming premiums, commissions, and claims paid mid-year).
- At the end of the first year, the Experience Refund has been thus reduced to negative CU996,462. In the next year, this amount is again increased by the interest charge and reduced by the second year's result, resulting in an amount of negative CU533,181.
- The same method is applied year after year.

187. The loss ratios increase as premiums decrease and the portfolio ages and deaths increase. In the contractual terms of the agreement, ABC Life may be entitled (although not obligated) to demand a retransfer of the portfolio where the Experience Refund is positive. Although the Experience Refund is positive at the end of the fourth year, XYZ Re may have a minimum profit requirement that only allows a retransfer after a preset time period or ABC Life may require more certainty on the underlying mortality trends before considering a retransfer.

Example 2 – Losses deteriorate significantly from those projected for portfolio

Calendar Year	Reinsurance Premium	Purchase Price	Reinsurance Commission	Annual Loss Ratio	Annual Claims	Cash flows	Experience Refund
1	1,000,000	-1,500,000	-100,000	20.0%	-200,000	700,000	-1,048,423
2	950,000		-95,000	25.0%	-237,500	617,500	-638,663
3	902,500		-90,250	35.0%	-315,875	496,375	-314,593
4	857,375		-85,738	40.0%	-342,950	428,688	-27,907
5	814,506		-81,451	50.0%	-407,253	325,803	181,475
6	773,781		-77,378	55.0%	-425,580	270,823	356,820
7	735,092		-73,509	60.0%	-441,055	220,528	499,956
8	698,337		-69,834	65.0%	-453,919	174,584	612,525
9	663,420		-66,342	80.0%	-530,736	66,342	627,055
10	630,249		-63,025	90.0%	-567,224	0	578,973
11	598,737		-59,874	100.0%	-598,737	-59,874	469,735
12	568,800		-56,880	110.0%	-625,680	-113,760	300,423
13	540,360		-54,036	125.0%	-675,450	-189,126	43,678
14	513,342		-51,334	140.0%	-718,679	-256,671	-299,590
15	487,675		-48,767	150.0%	-731,512	-292,605	-703,663
16	463,291		-46,329	170.0%	-787,595	-370,633	-1,217,349
17	440,127		-44,013	220.0%	-968,279	-572,165	-1,977,956
18	418,120		-41,812	255.0%	-1,066,207	-689,899	-2,918,335
19	397,214		-39,721	290.0%	-1,151,922	-794,429	-4,039,316
20	377,354		-37,735	420.0%	-1,584,885	-1,245,267	-5,715,404
Total	12,830,283	-1,500,000	-1,283,028	100.0%	-12,831,039		

Note: Loss ratios are calendar year losses (that increase as portfolio ages) divided by calendar year premiums (that decrease over time due to lapses and deaths).

188. In Example 1, the loss experience is projected assuming mortality of approximately 20 per cent better the average for the population as a whole based on ABC Life's underwriting criteria and actual loss experience to date. The projected loss ratio for the portfolio as a whole is approximately 70 per cent. In Example 2 below, the initial loss experience deteriorates significantly and the actual mortality rates deteriorate to approximately 5 per cent worse than the average for the population as a whole. A 25 per cent deterioration in mortality across all years from that expected is a very significant movement for a well underwritten diverse portfolio. With this deterioration, the projected loss ratio for the portfolio as a whole is approx 100 per cent.

189. In Example 2, the Experience Refund goes negative in the fourteenth year and, assuming that ABC Life has not (and/or is not contractually entitled to) requested a retransfer prior to this period, the portfolio remains with XYZ Re until expiry.

190. Regulatory concern would arise where the reinsurance arrangement did not indemnify the cedant in respect of the contingencies contemplated in Example 2 or otherwise provide for a transfer of risk. In our examples above, where there is no requirement to repay the negative Experience Refund, ABC Life has been indemnified in respect of the contingencies contemplated without any requirement to repay XYZ Re for their losses.

Appendix V - Accounting and insurance risk transfer testing

191. This appendix explains the difference between treating a reinsurance contract as effective reinsurance, and treating it as a loan or deposit. The example uses US regulatory accounting conventions. Although the details would be different under other existing accounting conventions, the broad effect would be similar. The appendix then goes on to examine the accounting approach used in Germany. Then, the appendix addresses insurance risk transfer testing based on the US approach and also provides an example based on the European Union approach.

Application of international accounting standards¹²

192. The introduction of IFRS 4 on 1 January 2005 has significantly changed at least the consolidated financial statements of reinsurers. The use of international financial reporting standards is expected to increase convergence of financial reporting requirements.

193. For reinsurers, as for insurers, the introduction of such standards comes in two stages. This first phase of the IASB's Insurance Contracts Project is meant to be a "stepping stone" towards a final standard. Phase I of the project has resulted in IFRS 4 ("Insurance Contracts"), which an interim standard is dealing only partly with the accounting issues related to insurance contracts. As a result, following the adoption of IFRS 4 with effect from 2005, and until Phase II of the Insurance Contracts Project is completed, there will be no comprehensive standard on insurance assets and insurance liabilities. Instead, the major rules will be found in IAS 39 ("Financial Instruments: Recognition and Measurement") and in the interim standard IFRS 4.

194. The IASB has now launched the second phase of the project and created the Insurance Working Group, which in September 2004 started its deliberations on a future permanent standard. According to its most recent work plan, the IASB is not expecting to publish an initial Discussion Paper before the third quarter of 2006, and it is unlikely that reinsurers would be required to apply the final insurance standard before 2011.

195. The Regulation No. 1606/02 of the European Parliament and of the Council of 19 July 2002 on the application of international financial reporting standards relates to the consolidated accounts of the European Commission (EC) listed entities and publicly traded entities. As a result of this Regulation, endorsed IFRSs are automatically applicable as of 2005 to the consolidated financial statements of listed insurers and reinsurers and those with listed debt instruments. However, some Member States have chosen to require or permit the application of IFRS to other types of insurers and reinsurers as well as to annual (individual) accounts.

196. As mentioned above, the use of IFRS is now required for the consolidated accounts of insurers and reinsurers, while - for the moment - this is generally not the case for annual (individual) accounts. A number of jurisdictions, however, allow, but do not require, the application of IFRS to both consolidated and annual accounts. Consequently, in these countries, the real impact largely depends on insurers' choices.

197. The main areas where further discussion may be necessary regarding how IASB/IFRS projects will affect reinsurers are the same as for direct insurers :

- the mismatch issue arises from reporting assets on a fair value basis (IAS 39) whilst liabilities in most countries are based on historical cost (IFRS 4 maintains local GAAP during Phase I). This may result in equity volatility due not only to economic conditions but also to this inconsistency between measurement

¹² Refer to section 5 for detailed discussion on IFRS 4 requirements regarding reinsurers.

methods for assets and liabilities. A number of solutions to this "mismatch" issue have been discussed with the IASB but none has achieved general acceptance.

- the IFRS 4 provides a definition of an insurance (and reinsurance) contract which is based on the "significance" of insurance risk accepted by the (re)insurer. This definition may have significant effects on the financial statements of reinsurers, where a part of the current portfolio may not contain "significant" insurance risk. The ineligibility for certain contracts to be considered (re)insurance contracts may affect the level of technical provisions. Furthermore, the lack of guidance on the definition of insurance risk and of its "significance" could potentially damage the comparability of financial statements and, as such, cause concern to supervisors.

198. These are areas which have the potential to cause a lack of transparency between different reinsurers even after the changes are adopted.

US' approach

199. The US SSAP No. 61 in the NAIC Accounting Practices and Procedures Manual, Life, Deposit-Type and Accident and Health Reinsurance, generally requires a transfer of all significant risks inherent to the business reinsured. The regulation does not address the probability of loss to the reinsurer at all in defining transfer of risk. "Significant risks" are defined with reference to a table of risks and reinsurance contract types. The supervisor should consult SSAP No. 61 for details concerning the evaluation of insurance risk transfer for life and health reinsurance arrangements. The SSAP specifically prohibits the use of side agreements, which differs from the non-life treatment of side agreements.

200. Traditional reinsurance can provide "financing" or "available surplus capital relief" when an adequate amount of risk is transferred between the parties. The following is an example of how the financial ratios can be ameliorated using a simple quota share reinsurance contract that fully transfers risk.

Quota Share 80%			
Commission Rate 30%	6/30/02	80%	6/30/03
Override Commission 5%	Before	Q/S	After
	Reinsurance	Reinsurance	Reinsurance
INCOME STATEMENT			
PREMIUMS WRITTEN	10,000,000	(8,000,000)	2,000,000
CHANGE IN UPR	4,000,000	(3,200,000)	800,000
PREMIUMS EARNED	6,000,000	(4,800,000)	1,200,000
LOSSES INCURRED	3,000,000	(2,400,000)	600,000
LOSS EXP. INCURRED	550,000	(440,000)	110,000
OTHER UND. EXPENSES	3,000,000	(2,800,000)	200,000
UNDERWRITING DEDUCTIONS	6,550,000	(5,640,000)	910,000
UNDERWRITING INCOME	(550,000)	840,000	290,000
INVESTMENT INCOME	250,000		250,000
OTHER INCOME/LOSS			
TAXES	0		365,000
NET INCOME	(300,000)	840,000	175,000
LOSS RATIO	59.17%		59.17%
PW/Surplus	285.71%		57.14%
Commission Ratio	30%		10%

Impact of quota share

80% Quota share

Balance Sheet		6/30/02	0.8	6/30/03
ASSETS		Before	Q/S	After Reinsurance
-----		Reinsurance	Reinsurance	-----
INVESTMENTS & CASH		20,980,000	-5,200,000	15,780,000
AGENTS' BALANCES		1,650,000		1,650,000
REINSURANCE RECOV.		150,000		150,000
MISC. ASSETS		135,000		135,000
		-----	-	-----
TOTAL ASSETS		22,915,000	-5,200,000	17,715,000
=====		=====	=	=====
LIABILITIES				

LOSSES & LAE		15,250,000	-2,840,000	12,410,000
REINSURANCE PAYABLE		450,000		450,000
UNEARNED PREMIUMS		4,000,000	-3,200,000	800,000
OTHER EXP. & TAXES		150,000		150,000
MISC. LIABILITIES		65,000		65,000
		-----	-	-----
TOTAL LIABILITIES		19,915,000	-6,040,000	13,875,000
		-----	-	-----
CAPITAL AND SURPLUS				
CAPITAL		2,750,000		2,750,000
UNASSIGNED SURPLUS		750,000		750,000
REINS.BEN.			840,000	840,000
		-----	-	-----
POLICYHOLDERS' SURPLUS		3,500,000	840,000	4,340,000
		-----	-	-----
TOTAL LIAB. AND SURPLUS		23,415,000	-5,200,000	18,215,000
		=====	=	=====
Ratio of liab. to surplus		569.00%		319.70%

201. Since acquisition expenses must be expensed immediately, but premiums must be earned over the life of the contract, there is a timing disconnect between income and expense recognition. In the example, the reinsurer reimburses the ceding insurer for those acquisition expenses via a ceding commission. This will help the cedant offset its cost for production of business (agent commissions, underwriting expenses, etc.) In addition, there may be an override or a contingent commission that may be paid due to the volume of business written or also can compensate the ceding insurer for the profitability of the business ceded to the reinsurer. Since the losses are shared between the insurer and reinsurer in a 1:1 proportional relationship, the loss ratio does not change after the effects of reinsurance. However, since the reinsurer has compensated the expenses of writing new business, the available surplus capital relief is evident in the premiums written/available surplus capital ratio. Before reinsurance, the cedant has a leverage ratio of 285% premiums written to available surplus capital while that ratio has been reduced to 57% after the reinsurance transaction. In addition, the expense ratio has been reduced from 30% to 10% since the "Other Underwriting Expenses" were shifted to the reinsurer (\$ 2,800,000 = 35% commission [30% commission + 5% override commission] * \$ 8,000,000 in ceded premiums to the reinsurer). Also, the ratio of liabilities/available surplus capital improved from 554% to 308%.

202. Paragraph 9 of FAS 113 outlines two tests that must be passed in order for reinsurance of short-duration contracts to be considered to indemnify the ceding insurer against loss or liability. These two tests, which are often referred to as the "risk transfer" tests, are as follows:

- A. "the reinsurer assumes significant insurance risk under the reinsured portions of the underlying contracts.

- B. it is reasonably possible that the reinsurer may realize a significant loss from the transaction.

203. A reinsurer shall not be considered to have assumed significant insurance risk under the reinsured contracts if the probability of a significant variation in either the amount or timing of payments by the reinsurer is remote. Contractual provisions that delay timely reimbursement to the ceding enterprise would prevent this condition from being met.”

204. If any reinsurance contract does not meet the insurance risk transfer requirements, then it receives “deposit accounting treatment.”

- No reduction in loss reserves or liabilities
- Gains are not recognised until the termination of the contract
- All cash flows processed through a deposit account.

Deposit accounting

Balance Sheet			
ASSETS			
INVESTMENTS & CASH	20,980,000	-3,250,000	17,730,000
AGENTS' BALANCES	1,650,000		1,650,000
REINSURANCE RECOV.	150,000		150,000
MISC. ASSETS	135,000	3,250,000	3,385,000
TOTAL ASSETS	22,915,000	0	22,915,000
LIABILITIES			
LOSSES & LAE	15,250,000	0	15,250,000
REINSURANCE PAYABLE	450,000		450,000
UNEARNED PREMIUMS	3,500,000	0	3,500,000
OTHER EXP. & TAXES	150,000		150,000
MISC. LIABILITIES	65,000		65,000
TOTAL LIABILITIES	19,415,000		19,415,000
CAPITAL AND SURPLUS			
CAPITAL	2,750,000		2,750,000
UNASSIGNED SURPLUS	750,000		750,000
REINS.BEN.			0
POLICYHOLDERS' SURPLUS	3,500,000		3,500,000
TOTAL LIAB. AND SURPLUS	22,915,000	0	22,915,000

205. US generally accepted accounting principles (GAAP) on deposit accounting for reinsurance contracts that do not transfer insurance risk differs somewhat from US statutory accounting practices (SAP) on deposit accounting. Among other things, GAAP allows contracts that transfer underwriting risk but not timing risk to be accounted for in the income statement of the insured as an offset against incurred losses. SAP does not allow deposits to affect the underwriting accounts, which means that those contracts won't affect the combined ratio.

206. Under GAAP, embedded derivatives are not subject to exemptions from the general principle of separation and fair value measurement when they are not closely related to the host contract. FAS 133 (accounting for derivatives) requires to bifurcate derivative components from insurance components (if not insurance related).

207. GAAP has no single definition of an insurance contract. The classification of contracts under GAAP is performed by reference to the combined requirements of several different standards (FAS 60, FAS 97, FAS 113 and FAS 120).

208. Unbundling (i.e. separating reinsurance contract elements) is required if liabilities are not recognised under existing GAAP and if cash flows are independent, unbundling if an embedded derivative exists (unless embedded derivatives are considered insurance contracts). Embedded derivatives need to be accounted for under IAS 39 at fair value (movements recorded in P&L).

209. In addition, if an entity elects to adopt the fair value option under IFRS, the accounting for liabilities associated with investment contracts can be different from GAAP, where these liabilities are typically reflected at their account value. In the context of fair value, the IFRS requirement to keep the liability at no less than the amount payable on demand (also known as the 'deposit floor') adds another difference to the accounting for investment contracts.

210. Reinsurance is one area where contracts are not accounted for as insurance under GAAP but may be defined as insurance contracts under IFRS. Another area where differences in definition arise is the concept of the insured event.

211. In the early 1990s, GAAP (FASB 113) accounting as well as US statutory accounting (SSAP No. 62) rules were amended in order to require that, in order to receive proper accounting treatment for reinsurance transactions, real insurance risk transfer must take place which placed an emphasis on underwriting risk being transferred as well. It should be emphasised, that traditional reinsurance transactions have similar effects of improving financial ratios, stabilising income and boosting available surplus capital. Effective 1 January 2005, International Financial Reporting Standard (IFRS) 4 is the first guidance from the IASB on accounting for insurance contracts. However, a second phase of the IASB's Insurance Project is under way.

Germany's approach

212. Accounting treatment of reinsurance contracts under the Commercial Code (German GAAP)

213. The German commercial accounting law is a principle-based body of accounting rules. A pivotal role is played by the sound accounting principles (Grundsätze ordnungsgemäßer Buchführung), in particular the principle of completeness, the prudence principle and the imparity principle. Insurers and reinsurers are obliged to establish technical provisions to the extent necessary by reasonable commercial standards in order to ensure that funds are available at any time to meet present and future policyholders' liabilities.

214. The specific (re)insurance requirements demand an even higher degree of prudence than is requested in other economic sectors; this is further reinforced by the need to build equalisation provisions.

215. One of the basic principles in German accounting standards is "substance over form". In view of this principle and of the commercial law provisions specified, a reinsurance program in total and any single reinsurance contract must be assessed on an overall basis and treated in the accounts according to the insurance risk transfer provided (e.g. specifically considering any future obligation by the insurer). An impairment test is mandatory and there exist in addition specific reporting requirements by the auditors which have to be adhered to. This applies to all types of reinsurance contracts.

216. Laying down a standardised legal quantitative limit as a criterion for the existence – limit exceeded – or the non-existence – limit not reached – of insurance risk transfer would be contrary to these commercial principles.

217. These general rules of the Commercial Code (HGB) specify that contracts without sufficient insurance risk transfer are accounted as loans and not as reinsurance. The Federal Financial Supervisory Authority (BaFin) is entitled by law (§ 81 and § 121a insurance supervision law (VAG) respectively) to enforce a respective adequate accounting. Moreover BaFin requires the auditors of (re) insurers to specifically report on the reinsurance / retrocession program and its economic substance in a detailed (long form) auditor's report to BaFin.

218. If as a result of the overall assessment described above a contract is categorized as a reinsurance / retrocession contract, it is shown in the "technical account". The assets and liabilities resulting from the contract, and earnings and expenses are shown separately gross, re and net.

219. If as a result of the overall assessment described above a contract is not categorised as a reinsurance contract, it has to be shown in the "non-technical account".

220. A contract not categorised as a reinsurance contract has to be treated as an investment or service contract. The assets and liabilities resulting from these contracts are accounted for in line with general accounting principles and therefore shown as (investment) asset / liability in the accounts and only the applicable fee (margin) is shown in the non-technical profit and loss.

221. Reinsurance/retrocession is a keystone in insurer risk management. Therefore it is management and supervisory board responsibility to ensure that the insurer has an adequate reinsurance program and that this is accounted for in accordance with general accounting standards. The auditor is required to report to the (supervisory) board of directors on the reinsurance programme as well as on the consistent accounting of this reinsurance program. This is complemented by the reporting of the management and auditors to BaFin.

Insurance risk transfer testing

222. The supervisor should review the procedures followed by the insurer in accordance with the selection of reinsurers and the ongoing monitoring of their financial condition. It is important to review all reinsurance documentation (placement slips, cover notes, reinsurance arrangements and any addenda thereto) for completeness, accuracy and timeliness.

223. For a fee that can total several million dollars, a reinsurer might create a financing vehicle that allows the insurer to move real or expected losses off its balance sheet. On its face, the finite reinsurance deal has transferred the risk to the reinsurer. However, through side agreements premiums are ceded back to the insurer, which then takes the charges or losses over multiple periods.

224. Supervisors should require that significant insurance risk transfer take place prior to giving insurers reinsurance accounting treatment. For US statutory accounting purposes "risk" is defined in SSAP No. 62, Property and Casualty Reinsurance, of the NAIC Accounting Practices and Procedures Manual as consisting of two distinct elements: underwriting risk and timing risk.

- Underwriting risk is the possibility that losses and expenses recoverable by the cedant from the reinsurer will exceed the consideration received by the reinsurer, thus resulting in an underwriting loss to the reinsurer
- Timing risk exists when anticipated loss payment patterns are not considered during the development of recoverable losses under the reinsurance agreement, and result in a reduction in investment income to the reinsurer as an effect of the accelerated loss payments.

225. The NAIC Casualty Actuarial Task Force (CATF), along with the American Academy of Actuaries (AAA), has also been asked to re-evaluate insurance risk transfer requirements for reinsurance contracts. The AAA has stated that one of the traditional functions of reinsurance has always been to protect insurers against potential losses whose probabilities are unknown and, in some instances, unknowable.

226. Two examples of risks that were unknowable at the time reinsurers accepted them are the emergence of asbestos losses and the terrorist attacks of 11 September. Although the probabilities of such extreme events may have been deemed remote or even zero at the time the reinsurers wrote the underlying contracts, nevertheless these events occurred and have been a significant share of reinsurers' underwriting losses. The RTS does not believe that a test that hinges on a reasonable estimate of the probability of the reinsurer's loss is sufficient to encompass the instance of the true transfer of unknown risk.

227. The AAA identified several matters for the CATF's consideration:

- We do not believe a bright-line approach, without allowance for judgment, is an optimal approach. There are some contracts for which cash flow testing using a standard of "reasonable possibility of significant loss" as prescribed in SSAP 62 cannot always be appropriately applied, and for which a reasonable bright-line threshold would be difficult or impossible to establish. For example, there are contracts where, as it regards the business being reinsured, the ceding insurer's expense is fixed and known at the date it enters into a contract and the reinsurer is assuming the variability of the resultant loss experience. In these circumstances, when the probability of loss to the reinsurer is unknown or thought to be very small but the potential loss is very large, insurance risk transfer can often be deemed self-evident, and cash flow testing coupled with bright-line standards may be neither appropriate nor relevant. Therefore, we believe these contracts, in which risk and reward are effectively transferred away from the cedant regardless of the probability of loss, should not be subject to cash flow testing using a standard of "reasonable possibility of significant loss" as prescribed in SSAP 62. We note that expansion of the Paragraph 11 Exception may be controversial, but that there may be other justifications sufficient for this purpose.
- Just as there are many acceptable loss-reserving methods, we believe that there can be many acceptable insurance risk transfer testing methods. No one method will always be better than the others, and the appropriateness of any given method will depend on the individual circumstances. Furthermore, just as with loss reserving, it is possible that a best practices approach for evaluating insurance risk transfer might involve input from a combination of approaches.
- We believe that the Expected Reinsurer Deficit test described in the CAS Working Party report may be a useful testing method that follows the precepts for cash flow testing outlined in SSAP 62. However, we do not believe it is appropriate to apply it as a bright-line standard test, and we believe that further analysis is required to determine what threshold may be reasonable under various circumstances.

228. Although the 10-10 rule is not codified under current statutory or GAAP pronouncements, the US insurance industry, accounting profession and the actuarial community routinely follow it. Regulators are considering whether a system of unbundling would be more appropriate to match the economic substance of the reinsurance agreement with the accounting and disclosure treatment of the contract.

229. The Casualty Actuarial Society (CAS) in the US issued recommendations about how to define and test for insurance risk transfer in short duration reinsurance contracts as required by US generally accepted and regulatory accounting principles. The CAS has demonstrated that "...the "10-10" rule in the US (10% probability of a 10% loss on ceded

reinsurance premium) test is inadequate for use as a universal insurance risk transfer test, because it cannot correctly identify contracts that are clearly risky. The CAS has proposed an alternative test based on the concept of expected reinsurer deficit, or ERD, which incorporates both frequency and severity of underwriting loss into a single measure. The embedded severity measure is the TvaR (Tail Value at Risk) at the economic breakeven point. TvaR has the advantages over VaR of reflecting all the information in the right tail of the underwriting result distribution as well as being a coherent measure of risk. The CAS' second method involves a framework based on right tail deviation (RTD) that tightly links insurance risk transfer testing and risk loading. While the RTD-based approach has theoretical appeal, it has the drawback of being more complex and thus less understandable to a non-actuarial audience than the ERD approach."¹³

230. The American Academy of Actuaries (AAA) has reviewed the CAS report as well as surveys of the US insurance industry. The AAA concludes that "just as there are many acceptable loss reserving methods, we believe that there can be many acceptable insurance risk transfer testing methods. No one method will always be better than the others, and the appropriateness of any given method will depend on the individual circumstances. Furthermore, just as with loss reserving, it is possible that a best practices approach for evaluating insurance risk transfer might involve input from a combination of approaches. The AAA believes that the Expected Reinsurer Deficit test described in the CAS Working Party report may be a useful testing method that follows the precepts for cash flow testing outlined in SSAP 62. However, we do not believe it is appropriate to apply it as a bright-line standard test, and we believe that further analysis is required to determine what threshold may be reasonable under various circumstances."¹⁴

Example of application of the insurance risk transfer test (European Union approach)

231. The reinsurance contract is an excess of loss treaty for general liability insurance. All the losses occurred in the year in which the contract is in force will be reimbursed within the seven following financial years.

Contract terms

1 000 000 per loss and per occurrence in excess of 1 000 000

Lump-sum annual premium: 2 000 000

Commissions: 15%

Remarks

232. Loss ratio: it is reasonably possible that the ultimate loss ratio on the reinsurance contract could range from 75% to 120% of premiums ceded.

233. Payment pattern: the payment pattern could vary; the majority of claims may be paid within the 2nd or 3rd year or later. It is reasonably possible that payments may be made in three payment speeds (slow, medium, fast) under each possible ultimate loss ratio.

¹³ Casualty Actuarial Society, Risk Transfer Testing of Reinsurance Contracts: Analysis and Recommendations, August 1, 2005.

¹⁴ American Academy of Actuaries, Risk Transfer in P & C Reinsurance: Report to the Casualty Actuarial Task Force of the National Association of Insurance Commissioners, American Academy of Actuaries, Committee on Property and Liability Financial Reporting, August 2005.

234. To determine whether there is a “significant insurance risk transfer” the three following steps of the test should be performed:

1st step: Is there any uncertainty on the ultimate amount of payments due under the reinsurance contract (has the underwriting risk been transferred)?

Yes. The reinsurance contract has reasonable potential variability in the amount of losses. In fact, these could vary from a minimum of 1 500 000 (annual premium multiplied by a 75% loss ratio) up to a maximum of 2 400 000 (annual premium multiplied by a 120% loss ratio). The reinsurance contract does not envisage any other clause limiting the variability of the maximum amount of the loss to be borne under the treaty.

2nd step: Is there any uncertainty on the timing of payments to the ceding undertaking? (has the timing risk been transferred?)

Yes. The reinsurance contract envisages a payment pattern of seven years. The majority of losses could be paid in the first few years as well as in the last ones. No provisions in the reinsurance contract limit the timing of payments.

3rd step: Does the reinsurer have a reasonable possibility of a significant loss resulting from the treaty?

This can be verified by determining the present value of the expected cash flows at the date when the reinsurance contract becomes effective and by applying a number of different assumptions on the loss ratio and the pattern of payments. There is no strict bright line number to determine what constitutes a “reasonable possibility”. However, in some accounting guidance, it is defined as more than “remote”. To explain more clearly we quote a concrete example based on the assumption of a loss ratio of 120% and a medium speed of reimbursement of losses.

Assessment of the possible loss borne by the reinsurer

235. The premium has been paid in advance at the first day of reinsurance contract period; loss payments have been made on 31st December of each financial year.

Insurance Component

Assumptions - loss ratio: 120%;

- Payment pattern (medium speed of payment):

Year 1	10%
Year 2	20%
Year 3	30%
Year 4	20%
Year 5	10%
Year 6	6%
Year 7	4%
	100%

Financial Component Assumptions - The interest rates applied are those established by public bodies.

CASH FLOWS

Years	1/1/X1	31/12/X1	X2	X3	X4	X5	X6	X7	Total
	2 000 000								2 000 000
Premiums									
Commissions	(300 000)								(300 000)
Loss payments		(240 000)	(480 000)	(720 000)	(480 000)	(240 000)	(144 000)	(96 000)	(2 400 000)
TOTAL	<u>1 700 000</u>	<u>(240 000)</u>	<u>(480 000)</u>	<u>(720 000)</u>	<u>(480 000)</u>	<u>(240 000)</u>	<u>(144 000)</u>	<u>(96 000)</u>	<u>(700 000)</u>

PRESENT VALUE OF CASH FLOWS

Assumed rates	0	3.5%	4.4%	4.9%	5.4%	5.9%	6.0%	6.4%	---
Present Value	<u>1 700 000</u>	<u>(231 884)</u>	<u>(440 393)</u>	<u>(623 744)</u>	<u>(388 937)</u>	<u>(180 190)</u>	<u>(101 514)</u>	<u>(62 184)</u>	<u>(328 846)</u>

Potential loss borne by the reinsurer

Total present value of payments by the reinsurer (328 846) = (16.4%)

Total present value of payments by the ceding insurer

(gross of commissions) 2 000 000

236. The example shows that the sum of the present value of all future payments amounts to a loss to the reinsurer of 328 846. This sum, compared to the value of the advance premium of 2 000 000 (gross of commissions), determines the potential loss to which the reinsurer is exposed, which in this example is 16.4%. This percentage has been judged significant by US authorities.

237. Given that it is reasonably probable that the reinsurer may realise a significant loss arising out of the treaty, we may say that the reinsurance contract has got through the 3rd step of the test.

238. Finally, since all the three steps of the test have been passed, the contract can be recorded in the accounts as a reinsurance treaty.

239. However, in practice it is very difficult to apply this test because its application rests upon valuations and assumptions that might strongly influence the results.

240. Moreover there is the need to establish a minimum threshold to assess when the potential loss to be borne by the reinsurer becomes significant. US trade associations have not established this threshold, yet in normal practice they deem it acceptable, for insurance purposes, that a contract, at the end of its multi-year term, may realise a total loss of at least 10% of premiums ceded.

241. When an insurer tries to circumvent the method by adding a reinsurance cover to the cosmetic cover, the two covers should be examined separately.

242. It is also necessary to issue specific guidelines on the accounting treatment of items relating to treaties that do not meet the requirements of the above-mentioned test. In the US these items must be recorded as deposits with reinsurers.

243. Finally it is important to underline that before applying the said test or making any valuation on a treaty it is always necessary to gather exhaustive documents on the contract. The experience of supervisors has shown that the ceding insurer itself and the auditors sometimes have difficulties in obtaining such documents.

244. The other elements of risk, including credit risk or yield risk, are inherent in most reinsurance arrangements, and result in a reduction in investment income to the reinsurer as an effect of the accelerated loss payments. There is no defined quantitative level of insurance risk transfer that must be met before the transaction can be accounted for as reinsurance. The language in SSAP No. 62 requires only that the reinsurer assume significant insurance risk (i.e., underwriting and timing risk) and that a reasonable possibility exists that the reinsurer, in so doing, may sustain a significant loss from the transaction. The determination of what amount of risk is "significant" is to be made on a case-by-case basis by the regulator. The term "reasonably possible" is defined as any probability that is "more than remote".

245. One jurisdiction has specific guidance concerning low frequency and high severity risks: "In order to assess a reinsurance contract for sufficient insurance risk transfer, combination of greater than 120% loss ratio possibility on a discounted basis and a reasonable man approach to assessing probability. Are the events giving rise to a maximum loss so remote that a reasonable man would not expect them to possibly occur and therefore not purchase?"

246. In the simplified illustration that follows, if the probability of a loss ratio of 100% or higher on the business reinsured does not illustrate a greater than "remote" possibility one would have to conclude that the transaction does not transfer sufficient risk to the reinsurer to warrant reinsurance accounting treatment.

Simplified illustration of cash flow analysis

Assumptions:

- ultimate loss ratio will be no lower than 75% and no greater than 125%
- \$5,000,000 premium less 20% ceding commission will be paid at inception
- interest rate = 5%, compounding annually
- paid losses will be recovered from the reinsurer at the end of each year as follows:

Year 1	20%
Year 2	35%
Year 3	20%
Year 4	15%
Year 5	10%
	<hr/>
	100%

Cash flows @ 75% loss ratio

Net Premium:	Paid Losses					Total
	Year 1	Year 2	Year 3	Year 4	Year 5	
\$4,000,000	(\$750,000)	(\$1,312,500)	(\$750,000)	(\$562,500)	(\$375,000)	(\$3,750,000)
Present Value						
\$4,000,000	(\$714,286)	(\$1,190,476)	(\$647,878)	(\$462,770)	(\$293,822)	(\$3,309,232)

Gain/(Loss) to Reinsurer: \$4,000,000 – \$3,309,232 = \$690,768 = 17% gain

Cash flows @ 100% loss ratio

Net Premium:	Paid Losses					Total
	Year 1	Year 2	Year 3	Year 4	Year 5	
\$4,000,000	(\$1,000,000)	(\$1,750,000)	(\$1,000,000)	(\$750,000)	(\$500,000)	(\$5,000,000)
Present Value						
\$4,000,000	(\$952,381)	(\$1,587,302)	(\$863,838)	(\$617,027)	(\$391,763)	(\$4,412,311)

Gain/(Loss) to Reinsurer: \$4,000,000 – \$4,412,311 = (\$412,311) = 10% loss

Cash flows @ 125% loss ratio

Net Premium:	Paid Losses					Total
	Year 1	Year 2	Year 3	Year 4	Year 5	
<u>\$4,000,000</u>	<u>(\$1,250,000)</u>	<u>(\$2,187,500)</u>	<u>(\$1,250,000)</u>	<u>(\$937,500)</u>	<u>(\$625,000)</u>	<u>(\$6,250,000)</u>
Present Value						
<u>\$4,000,000</u>	<u>(\$1,190,476)</u>	<u>(\$1,984,127)</u>	<u>(\$1,079,797)</u>	<u>(\$771,284)</u>	<u>(\$489,704)</u>	<u>(\$5,515,388)</u>

Gain/(Loss) to Reinsurer: \$4,000,000 – \$5,515,388 = (\$1,515,388) = 38% loss

247. In determining whether reinsurance accounting is allowable, it should be noted that in certain instances the business covered by the reinsurance agreement might be inherently profitable. As long as the provisions of the reinsurance agreement place no limitations on the obligations of the reinsurer, (i.e., the reinsurer's underwriting result can be expected to mirror that of the ceding insurer) commission impact aside, it would be appropriate to allow reinsurance accounting.

Appendix VI - Examples of supervisory approaches to finite reinsurance

248. A number of responses were received from various jurisdictions to an IAIS questionnaire sent to members of the Reinsurance and Other Forms of Risk Transfer Subcommittee concerning the supervisory approaches to finite reinsurance in different jurisdictions. These are summarised in this appendix and provided to outline the range of supervisory approaches that can be used.

Australia's approach

249. Since 1994 Australian prudential regulation has required that all "limited insurance risk transfer" reinsurance contracts be approved by the regulator. A circular letter was sent to all insurers and reinsurers setting out what types of contracts needed to be agreed. The insurer's auditors had responsibility for evaluating and agreeing the proper accounting treatment and where they were not comfortable the regulator's approval was to be sought.

250. It is the Australian Prudential Regulation Authority's (APRA) intention to continue this approach with the redrafting of the *Prudential Standard GPS 230 Reinsurance Management*. This is currently undergoing industry consultation and is expected to be implemented in January 2006.

Relevant excerpts from this draft are:

Approval of limited insurance risk transfer arrangements

251. An insurer must submit to APRA details of all proposed limited insurance risk transfer arrangements for approval prior to entering into such arrangements. At a minimum, the submission for approval must include:

- a. draft reinsurance contract wording or other draft proposed agreement and collateral or 'side' agreements, and any other documentation or information relevant to the transaction (including a written description of any verbal understandings and/or undertakings that are material to the operation of the arrangement)
- b. details of the proposed accounting treatment and the effect of the proposed arrangement on the balance sheet and capital adequacy of the insurer for each accounting period and over the full period of the arrangement, certified by the Approved Auditor, and the manner in which this will be disclosed.

252. Where (a) is not available, the insurer must submit to APRA a comprehensive description of the proposed arrangement including details of any insurance risk transfer and financing elements.

253. When seeking approval, the insurer must demonstrate to APRA that it has formal written policies and procedures addressing the purpose, nature and use of limited insurance risk transfer arrangements¹⁵. Specifically, the insurer must at a minimum demonstrate that:

- a. the purpose and effect of any limited insurance risk transfer arrangement is fully understood
- b. the associated risks have been identified and addressed

¹⁵ Such policies and procedures must form part of the insurer's Reinsurance Management Strategy. For further details, refer to Prudential Standard GPS 230 Reinsurance Management and Guidance Note GGN 230.1 Reinsurance Management Strategy and Guidance Note GGN 230.2 Reinsurance Arrangements Statement.

- c. appropriate internal approvals have been identified and implemented
- d. the approved actuary and approved auditor have indicated whether the arrangement, in their view, meets the description of a limited insurance risk transfer arrangement as outlined in this Guidance Note
- e. all documentation has been scrutinised by suitably qualified and experienced staff of the insurer.

254. APRA will only approve a limited insurance risk transfer arrangement where the following criteria are met:

- a. the arrangement has a legitimate purpose and effect
- b. the arrangement will not disguise, or is not designed to disguise, a material risk to the insurer's current or continuing profitability, solvency or capital adequacy from any party
- c. the financial costs and benefits of the arrangement, and the nature and potential quantum of any potential risks to policyholders, are adequately reflected in the application for approval and the proposed accounting and disclosure arrangements
- d. there will be no adverse effect on the insurer's balance sheet and capital position in any one period or over the entire term of the arrangement
- e. the insurer has reviewed the effect of the arrangement within the context of their overall risk management and control systems
- f. the arrangement will not adversely affect the interests of policyholders.

255. For applications which are approved, APRA will consider the nature and purpose of the arrangement and deem the arrangement to be either reinsurance or financing (as appropriate) for the purposes of:

- a. the calculation of the insurer's MCR (minimum capital requirement)
- b. reporting under reporting standards made under the Financial Sector (Collection of Data) Act 2001.

256. APRA will advise the insurer of this fact in writing.

Reinsurance arrangements

257. APRA will generally consider a limited insurance risk transfer arrangement to be a reinsurance arrangement where the purpose and effect of the arrangement is to genuinely transfer significant insurance risk from the insurer to another (re)insurer.

258. A limited insurance risk transfer arrangement that is approved by APRA as a reinsurance arrangement must be treated accordingly by the insurer for prudential purposes¹⁶.

¹⁶ Refer Prudential Standard GPS 110 Capital Adequacy and reporting standards made under the Financial Sector (Collection of Data) Act 2001

Financing arrangements

259. A limited insurance risk transfer arrangement that is approved by APRA as a financing arrangement must be accounted for by the insurer so that:

- a. the arrangement has a legitimate purpose and effect; and
- b. the arrangement will not misrepresent, or is not designed to disguise, a material risk to the insurer's current or continuing profitability, solvency or capital adequacy from any party.

The terms and conditions of the financing arrangement will determine the appropriate accounting treatment.

260. Where APRA determines that a limited insurance risk transfer arrangement is a financing arrangement, the insurer must not treat the arrangement as reinsurance for the purpose of determining their minimum capital requirement under Prudential Standard GPS 110 Capital Adequacy or as reinsurance for any other purpose.

Canada - OSFI's approach

261. Under the Office of the Superintendent of Financial Institution's (OSFI) Guideline D7 applicable to non-life business, the ceding insurer is required to assess whether there is a reasonable possibility that the reinsurer may realize a significant loss from the transaction by comparing the present value of claims that could be settled under the reinsurance contract for various scenarios with the present value of the premiums paid to the reinsurer. If the reinsurer does not assume a significant insurance risk, the transaction is to be considered as financing and not reinsurance.

262. For life business, all future policy and investment cash flows arising from life reinsurance contract should be included in the reserving calculation unless there is no transfer of risk. If no insurance risk transfer occurs, the reinsurance contract should be accounted for as a financing/funding contract.

263. Regulatory reporting disclosure requires both life and non-life insurers to also disclose reinsurance risk management policies, including the role of the board of directors and management in the development, review, approval and implementation of reinsurance risk policies and procedures in place to effectively monitor and control reinsurance risk. Where the reinsurance ceded business of an insurer is identified as a "Significant Activity", the insurer is required to implement a full Risk Management Control Function ("RMCF"), which includes financial analysis, compliance, internal audit, risk management, senior management and the board of directors oversight.

264. For life business, appointed actuaries are required to review reinsurance contracts in order to make the following disclosure in the appointed actuary Report. Where reinsurance is material, a description of the reinsurance structure with respect to risks and allowances should be included. Disclosure should also include any new reinsurance arrangement, assumed or ceded, the effective and expected termination dates, the type of reinsurance, a description of the products covered, recapture provisions, any significant reserve and capital impact, and whether the arrangement involves a true transfer of risk for financial reinsurance.

265. Similarly, non-life appointed actuaries are required to be aware of any problems with respect to reinsurance contracts and describe the insurer's reinsurance agreements and any changes to the agreements during the experience period. In the non-life appointed actuary report, the appointed actuaries must indicate the amounts that were assumed to be recoverable from reinsurers and specify any unusual problems or delays that are expected to be encountered in the collection of the relevant amounts from the reinsurers. In addition, the appointed actuary should disclose material amounts by type of reinsurance, i.e. affiliated,

unaffiliated, registered, and unregistered reinsurers judged to have an impact on the insurer's operations.

266. Ceding insurers are also required to seek prior approval for reinsurance transactions that are not in the “ordinary course of business” or are with related parties.

267. As part of its supervisory work, OSFI assesses the effectiveness of an insurer's governance and risk management practices as they relate to reinsurance. Recently, OSFI has been increasing its focus on financial reinsurance. OSFI particularly wants to know the degree to which the board of directors of an insurer is engaged and the extent to which the insurer is involved in financial reinsurance, and more importantly the understanding by the insurer of the risks (reputation, financial and otherwise) inherent in financial reinsurance and the actions undertaken or proposed by the insurer to mitigate these risks.

European Union's approach

268. Owing to the special nature of finite reinsurance activity, the European Commission *Directive on Reinsurance* (2005) includes a definition of finite reinsurance (see Appendix III of this paper) as well as giving the option to member states of laying down specific provisions for the pursuit of finite reinsurance activities.

269. The options available to home member states include requiring mandatory conditions to be included in all contracts issued as well as being able to lay down specific provisions concerning the pursuit of finite reinsurance activities in the following areas:

- Sound administrative and accounting procedures, adequate internal control mechanisms and risk management requirements
- Accounting, prudential and statistical information requirements
- The establishment of technical provisions to ensure that they are adequate, reliable and objective
- Investment of assets covering technical provisions in order to ensure that they take account of the type of business carried on by the reinsurance undertaking, in particular the nature, amount and duration of the expected claims payments, in such a way as to secure the sufficiency, liquidity, security, profitability and matching of its assets
- Rules relating to the available solvency margin, required solvency margin and the minimum guarantee fund that the reinsurance undertaking shall maintain in respect of finite reinsurance activities.

Germany's approach

270. Insurance undertakings must have appropriate risk management in place that enables them to identify risks in time and to mitigate the imminent dangers by taking adequate counter-measures. Such measures may also include the conclusion of so-called finite or financial reinsurance contracts. However, such contracts should not be concluded without first ensuring the necessary transparency, since otherwise an accurate assessment of the risk situation and thus the insurer's financial position would not be possible.

271. The principles, methods and criteria Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) applies in relation to finite reinsurance can basically be assigned to the following three assessment areas (insurance risk transfer, collection of data plus transparency and BaFin's possibilities of intervention including prohibitions and requirements):

I. Insurance risk transfer

- Finite reinsurance contracts are reinsurance contracts that ceding insurers conclude mainly for their finance functions whereas the transfer of technical risks is rather of secondary importance
- Finite reinsurance contracts (as all traditional reinsurance contracts) have to comprise sufficient insurance risk transfer, i.e. there has to be a sufficient likelihood of a certain impending loss to the reinsurer
- The individual reinsurance contracts have to fit reasonably with the whole of the reinsurance program. Albeit sufficient insurance risk transfer is necessary for each contract.
- In case of doubt insurance risk transfers have to be verified by appropriate tests, for instance scenario calculations (cf. II item 'documentation'). For this purpose, all cash flows to be linked in future to the contractual relationship have to be taken into account. In this connection, there are no objections against applying internationally accepted procedures also to individual contracts for the preparation of a consolidated account (like for example the so called "10 / 10 rule of thumb", which is used in some instances by accounting professionals).
- Contracts with sufficient insurance risk transfer are classified and shown in the balance sheet as reinsurance contracts
- No or too little insurance risk transfer means that the reinsurance contract will be classified as a loan and has to be shown as such in the balance sheet
- There has to be a transfer of both technical risk and timing risk
- For mixed contracts, a separation of technical contents from the other contract components should, where possible, be required so that the necessary transparency can be maintained, in particular if besides the technical insurance risk other risks (for example arising from investments) have to be covered.

II. Collection of data and transparency

- Contract data should be collected by the insurer concerned separately and on-site
- Reinsurers should apply adequate internal risk management methods for both traditional and non-traditional contracts. The complexity and difficult assessment of finite reinsurance contracts require that for their checking and the insurer's decision-taking special methods be established at special boards of control and in certain areas of responsibility. The responsibility on the field of risk management has to be attached to a certain area of responsibility within the board of directors of management.
- Collateral agreements that are not documented in the reinsurance contract and significantly alter the risk are inadmissible
- It is required to document additional contracts that modify, limit or even supersede the documented insurance risk transfer (e.g. linked through options)
- Contracts should document their financial targets, the intended effectiveness, the risk checks conducted (see above) and the accounting made
- Regular reporting to the supervisory authority will support sufficient transparency. For the time being BaFin has already standardized reporting requirements in place (i.e. notifications and reporting obligations of the auditor). BaFin aims at enhancing the reporting formula taking into account the industry's own internal procedures and scenario testing to identify the level and spread of insurance risk transfer on the basis of the 10/10 rule.

- At least in relation to contracts with supreme importance for their own organisation and/or the contracting party, the insurer (including an involvement of its own auditor) must disclose its own accounting towards its contractual partner and document this.

III. BaFin's possibilities of intervention - prohibitions and requirements

- From a primary insurer's perspective, a finite reinsurance contract with or without sufficient insurance risk transfer can be regarded as unauthorised borrowing (business not directly related to insurance business pursuant to section 7 (2) of the *Insurance Supervision Act [Versicherungsaufsichtsgesetz – VAG]*), which can be inadmissible according to the current rules.
- Under the solvency requirements the supervisory authority is authorised to limit the required solvency margin if a reinsurance contract includes only little or no insurance risk transfer (section 81b (2) c VAG)
- If the management or the board of directors is involved in accounting manipulations (breach of duty) the supervisory authority may impose sanctions (caution, prohibition from continuing to exercise their functions and / or dismissal) and fines. Moreover the supervisory authority may replace management or the board of directors by a special commissioner.

Ireland's approach

272. On the 15th of July 2006, Ireland signed into law Statutory Instrument 380 transposing EC Council Directive 2005/68/EC, otherwise known as the Reinsurance Directive. Based on experience, the Irish supervisor is of the view that disclosure and transparency are the best ways of ensuring the continuing acceptance of finite reinsurance as a legitimate form of reinsurance. As such, for finite reinsurance, Irish law provides for the following:

- The Irish supervisor may from time to time make rules providing for, amongst others, the available solvency margin, the required solvency margin and the guarantee fund for a reinsurer writing finite reinsurance.
- A finite reinsurance contract constitutes all of the contractual arrangements agreement between the parties with respect to the business being reinsured there under and that there are no undisclosed understanding(s) between the parties other than as expressed in the contract.
- A finite reinsurance contract must ensure that the cedant undertakes to comply with the notification requirements (if any) imposed by the competent authority in the jurisdiction of the cedant. Where there are no notification requirements imposed by the competent authority, then the cedant must notify the competent authority where the finite reinsurance contract has a material financial impact upon the business of the cedant.
- Any finite reinsurance contract that has a material financial impact upon the business of the cedant must be notified to its auditor.
- Any change or modification to the finite reinsurance contract be agreed by all of the parties to the contract and the relevant persons shall be notified of the change or modification.

United Kingdom's approach

273. The United Kingdom is proposing to introduce new rules which require general insurance companies to disclose the effects of finite reinsurance contracts in their annual returns. These will come into effect in time for the 2006 year end.

US approach

274. Under current US statutory accounting practices (SAP) and generally accepted accounting principles (GAAP) accounting and disclosure standards, no distinction is made between traditional reinsurance and so-called finite or financial reinsurance arrangements. Despite being characterised by the parties as traditional or finite, a reinsurance transaction either meets the insurance risk transfer and other requirements of SSAP 62 and FAS 113, or it does not. If it does, then the transaction is accounted for as insurance/reinsurance. If it does not, it does not receive reinsurance accounting and is accounted for as a deposit. For those finite reinsurance transactions where reinsurance accounting treatment is sought the parties generally take great care to assure that the applicable accounting rules are followed. A common method established by auditors and actuaries that there must exist at least a 10% probability that the reinsurer could sustain a loss of at least 10% of the premium on the transaction (or the so-called “10/10” rule). Transactions that cannot satisfy statutory insurance risk transfer requirements must be accounted for as deposits rather than reinsurance.

275. The US has specific accounting guidance for non-life reinsurance and a model regulation for life reinsurance that are enacted in all jurisdictions that are discussed below.

276. Current guidance in SSAP No. 62 – Property and Casualty Reinsurance (non-life):

277. In addition to credit for reinsurance requirements applicable to reinsurance transactions generally, no credit or deduction from liabilities shall be allowed by the ceding entity for reinsurance recoverable where the agreement was entered into after the effective date of these requirements unless each of the following conditions is satisfied:

- The agreement must contain an acceptable insolvency clause
- Recoveries due the ceding entity must be available without delay for payment of losses and claim obligations incurred under the agreement, in a manner consistent with orderly payment of incurred policy obligations by the ceding entity
- The agreement shall constitute the entire contract between the parties and must provide no guarantee of profit, directly or indirectly, from the reinsurer to the ceding entity or from the ceding entity to the reinsurer
- The agreement must provide for reports of premiums and losses, and payment of losses, no less frequently than on a quarterly basis, unless there is no activity during the period. The report of premiums and losses shall set forth the ceding entity's total loss and loss expense reserves on the policy obligations subject to the agreement, so that the respective obligations of the ceding entity and reinsurer will be recorded and reported on a basis consistent with this statement.

278. Regarding the CEO attestation, supervisors should require that the ceding insurer and the reinsurer maintain the underwriting files that contain the actuarial analysis supporting the proper insurance risk transfer and accounting procedures. In some instances, the outside auditor or the reinsurance intermediary may be the only place where that information is stored, which makes the assessment of insurance risk transfer more difficult. Simply reviewing the contract terms of an agreement may not be sufficient to determine whether insurance risk transfer has actually occurred. Two reinsurance contracts that have the identical terms and structure might differ in terms of transfer of risk depending on the underlying types of business being reinsured and the assumptions that go into the insurance risk transfer analysis.

NAIC Life and Health Reinsurance Agreement Model Regulation requirements

279. In the US SSAP No. 61 in the NAIC Accounting Practices and Procedures Manual, Life, Deposit-Type and Accident and Health Reinsurance, generally requires a transfer of significant risks inherent to the business reinsured. The regulation does not address the probability of loss to the reinsurer at all in defining transfer of risk. "Significant risks" are defined with reference to a table of risks and contract types. The supervisor should consult SSAP No. 61 for details concerning the evaluation of insurance risk transfer for life and health reinsurance arrangements. The SSAP specifically prohibits the use of side agreements, which differs from the non-life treatment of side agreements.

280. For life and health reinsurance, the evaluation of insurance risk transfer is quite different from that for property-casualty reinsurance. The NAIC Life and Health Reinsurance Agreements Model Regulation defines "transfer of risk" in terms of a transfer of all of the "significant risks" inherent in the business reinsured. The regulation does not address the probability of loss to the reinsurer at all in defining transfer of risk. "Significant risks" are defined with reference to a table of risks and contract types. Consult the Model Regulation for details concerning the evaluation of insurance risk transfer for life and health reinsurance agreements. The NAIC Life and Health Reinsurance Agreements Model Regulation specifically prohibits the use of side agreements with respect to agreements subject to that regulation. This differs from the property-casualty treatment of side agreements.

281. The NAIC Life and Health Reinsurance Agreements Model Regulation requirements include:

Section 5. Written Agreements

- A. No reinsurance agreement or amendment to any agreement may be used to reduce any liability or to establish any asset in any financial statement filed with the Department, unless the agreement, amendment or a binding letter of intent has been duly executed by both parties no later than the "as of date" of the financial statement.
- B. In the case of a letter of intent, a reinsurance agreement or an amendment to a reinsurance agreement must be executed within a reasonable period of time, not exceeding ninety (90) days from the execution date of the letter of intent, in order for credit to be granted for the reinsurance ceded.
- C. The reinsurance agreement shall contain provisions, which provide that:
 - 1. the agreement shall constitute the entire agreement between the parties with respect to the business being reinsured there under and that there are no understandings between the parties other than as expressed in the agreement; and
 - 2. any change or modification to the agreement shall be null and void unless made by amendment to the agreement and signed by both parties.

Enhanced Disclosure

282. Regulators have indicated that current disclosure requirements are inadequate and should be ameliorated (perhaps even requiring reinsurance intermediaries to provide information concerning the contracting parties). Here is a draft proposal from insurance supervisors concerning additional financial statement disclosure of these agreements:

NAIC Annual Statement - Part 2 – Property & Casualty Interrogatories

Current Guidance - Question 7.1

Has the reporting entity reinsured any risk with any other entity under a quota share reinsurance contract which includes a provision which would limit the reinsurer's losses below the stated quota share percentage (e.g., a deductible, a loss ratio corridor, a loss cap, an aggregate limit or any similar provisions)?

Based on the 2004 filing, 350 out of approximately 2,700 US property and casualty insurers answered, "Yes". However, some possible misreporting has been noted.

Proposed Additional Guidance

7.3 If yes, does the amount of reinsurance credit taken reflect the reduction in quota share coverage caused by any applicable limiting provision(s)? Yes___ No___

Current Guidance: Question 8.1

Has this reporting entity reinsured any risk with any other entity and agreed to release such entity from liability, in whole or in part, from any loss that may occur on this risk, or portion thereof, reinsured?

Based on the 2004 filing, 143 US property and casualty insurers answered affirmatively to this interrogatory. Again, possible misreporting has been noted.

Proposed Additional Guidance

9.1 Has the reporting entity ceded any risk under any reinsurance contract (or under multiple contracts with the same reinsurer or its affiliates) for which during the period covered by the statement: (i) it recorded a positive or negative underwriting result greater than 5% of prior year-end surplus as regards policyholders or it reported calendar year written premium ceded or year-end loss and loss expense reserves ceded greater than 5% of prior year-end surplus as regards policyholders; (ii) it accounted for that contract as reinsurance and not as a deposit; and (iii) the contract(s) contain one or more of the following features or other features than would have similar results:

- a. A contract term longer than two years and the contract is not cancellable by the reporting entity during the contract term;
- b. A limited or conditional cancellation provision under which cancellation triggers an obligation by the reporting entity, or an affiliate of the reporting entity, to enter into a new reinsurance contract with the reinsurer, or an affiliate of the reinsurer;
- c. Aggregate stop loss reinsurance coverage;
- d. A unilateral right by either party (or both parties) to commute the reinsurance contract, whether conditional or not, except for such provisions which are only triggered by a decline in the credit status of the other party.
- e. A provision permitting reporting of losses, or payment of losses, less frequently than on a quarterly basis (unless there is no activity during the period); or
- f. Payment schedule, accumulating retentions from multiple years or any features inherently designed to delay timing of the reimbursement to the ceding entity.

9.2 Has the reporting entity during the period covered by the statement ceded any risk under any reinsurance contract (or under multiple contracts with the same reinsurer or its affiliates) for which during the period covered by the statement it recorded a positive or negative underwriting result greater than 5% of prior year-end surplus as regards policyholders or it reported calendar year written premium ceded or year-end loss and loss expense reserves ceded greater than 5% of prior year-end surplus as regards policyholders; excluding cessions to approved pooling arrangements or to captive insurance companies that are directly or indirectly controlling, controlled by, or under common control with (i) one or more unaffiliated policyholders of the reporting entity, or (ii) an association of which one or more unaffiliated policyholders of the reporting entity is a member, where:

- a. The written premium ceded to the reinsurer by the reporting entity or its affiliates represents fifty percent (50%) or more of the entire direct and assumed premium written by the reinsurer based on its most recently available financial statement; or
- b. Twenty-five percent (25%) or more of the written premium ceded to the reinsurer has been retroceded back to the reporting entity or its affiliates in a separate reinsurance contract.

9.3 If yes to 9.1 or 9.2, please provide the following information in the Reinsurance Summary Supplemental Filing for General Interrogatory 9:

- a. The aggregate financial statement impact gross of all such ceded reinsurance contracts on the balance sheet and statement of income;
- b. A summary of the reinsurance contract terms and indicate whether it applies to the contracts meeting the criteria in 9.1 or 9.2; and
- c. A brief discussion of management's principal objectives in entering into the reinsurance contract including the economic purpose to be achieved.

9.4 Except for transactions meeting the requirements of paragraph 30 of SSAP No. 62, Property and Casualty Reinsurance, has the reporting entity ceded any risk under any reinsurance contract (or multiple contracts with the same reinsurer or its affiliates) during the period covered by the financial statement, and either:

- a. accounted for that contract as reinsurance (either prospective or retroactive) under statutory accounting principles ("SAP") and as a deposit under generally accepted accounting principles ("GAAP"); or
- b. accounted for that contract as reinsurance under GAAP and as a deposit under SAP?

9.5 If yes to 9.4, explain in the "Reinsurance Summary Supplemental filing For General Interrogatory 9-Section D" why the contract(s) is treated differently for GAAP and SAP.

9.6 The reporting entity is exempt from the Reinsurance Attestation Supplement 20-1 under one or more of the following criteria:

- a. The entity does not utilize reinsurance; or
- b. The entity only engages in a 100% quota share contract with an affiliate and the affiliated or lead company has filed an attestation supplement 20-1; or

- c. The entity has no external cessions and only participates in an intercompany pool and the affiliated or lead company has filed an attestation supplement 20-1.

US GAAP Financial Statements

2.2.3 The Sarbanes-Oxley Act of 2002 requires the following:

“SEC. 302. CORPORATE RESPONSIBILITY FOR FINANCIAL REPORTS.

(a) REGULATIONS REQUIRED.—The Commission shall, by rule, require, for each company filing periodic reports under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m, 78o(d)), that the principal executive officer or officers and the principal financial officer or officers, or persons performing similar functions, certify in each annual or quarterly report filed or submitted under either such section of such Act that—

1. the signing officer has reviewed the report;
2. based on the officer’s knowledge, the report does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which such statements were made, not misleading;
3. based on such officer’s knowledge, the financial statements, and other financial information included in the report, fairly present in all material respects the financial condition and results of operations of the issuer as of, and for, the periods presented in the report;
4. the signing officers—
 - A. are responsible for establishing and maintaining internal controls; (B) have designed such internal controls to ensure that material information relating to the issuer and its consolidated subsidiaries is made known to such officers by others within those entities, particularly during the period in which the periodic reports are being prepared;
 - B. have evaluated the effectiveness of the issuer’s internal controls as of a date within 90 days prior to the report; and
 - C. have presented in the report their conclusions about the effectiveness of their internal controls based on their evaluation as of that date;
5. the signing officers have disclosed to the issuer’s auditors and the audit committee of the board of directors (or persons fulfilling the equivalent function)—
 - A. all significant deficiencies in the design or operation of internal controls which could adversely affect the issuer’s ability to record, process, summarise, and report financial data and have identified for the issuer’s auditors any material weaknesses in internal controls; and
 - B. any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer’s internal controls; and (6) the signing officers have indicated in the report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of their evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.”

Appendix VII - Reinsurance corporate governance

283. This appendix contains excerpts regarding reinsurance corporate governance which have been taken from the IAIS Supervisory standard No. 7: Supervisory Standard on Evaluation of Reinsurance Cover of Primary Insurers and the Security of their Reinsurers (January 2002).

284. Many global reinsurers have branch or affiliate offices in many countries around the world. It has been noted that the CEO may not be aware of all reinsurance transactions and that some of the questionable transactions have been completed by middle management operating a branch in a particular jurisdiction and may want to enhance the legal entity financial results before divulging those results to the parent company. If the branch manager has the authority to bind reinsurance coverage, then these transactions may not be brought to the attention of executive management without the proper internal controls in place to disclose these transactions.

285. There should be internal control systems in place to ensure that claims are reported to the appropriate reinsurer and that reinsurance claims payments are being promptly collected.

286. The underwriting control may include an actuarial assessment of the risk and whether it has been transferred as presumed. This assessment may also include a review of the reinsurance contracts. The board of directors should receive regular and comprehensive reports on the effectiveness and performance of the claims system and the reinsurance protection. Insurers' internal control systems should be subject to regular audit examination.

287. Where the risk profile has life insurance attributes, reinsurers' economic capital must allow for the specific risks arising from the reinsurance contract structure. Life reinsurance can include long-term premium guarantees and exposure to selective options, either in the contract with the cedant or in the contract between the cedant and the policyholder. Long-term premium guarantees expose the business to adverse trends. Changes in investment conditions can expose embedded options. These need to be identified, understood and adequately priced, and subsequently monitored and mitigated. Supervisors should expect reinsurers to adopt best market practice to control such risks.

288. In addition, like primary insurers, reinsurers are exposed to a variety of operational risks such as those arising from employees (e.g., mismanagement, human error and internal fraud), technology (e.g., technological failure and deteriorating systems), customer relationships (e.g., contractual disputes) and external sources (e.g., external fraud or changes in legal interpretations).

Board of directors

289. Every insurer should have a reinsurance strategy, approved by their board of directors that is appropriate to its overall risk profile. The reinsurance strategy will be part of the insurer's overall underwriting strategy. The board of directors should review the reinsurance strategy annually (in the case of life insurers, possibly less frequently). In addition, the reinsurance strategy should be reviewed when there have been changes in the insurer's circumstances, its underwriting strategy, or the status of its reinsurers.

290. The reinsurance strategy should define and document the insurer's strategy for reinsurance management, identifying the procedures for:

- the reinsurance to be purchased
- how reinsurers will be selected, including how to assess their security
- what collateral, if any, is required at any given time
- how the reinsurance programme will be monitored (i.e. the reporting and internal control systems).

291. The board of directors should ensure that all legal and regulatory requirements are met. It should set limits on:

- the net risk to be retained
- the maximum foreseeable amount of reinsurance protection to be obtained from the approved reinsurers.

Senior management

292. Senior management should document clear policies and procedures for implementing the reinsurance strategy set by the board of directors. This includes:

- setting underwriting guidelines that specify the types of insurance to be underwritten, policy terms and conditions, and aggregate exposure by type of business
- establishing limits on the amount and type of insurance that will be automatically covered by reinsurance (e.g. treaty reinsurance)
- establishing criteria for acquiring facultative reinsurance cover.