ICP 19: Reinsurance Case Study

Advanced-level Module

Background Note:
Issues for Supervisory Review in Relation to Non-life Reinsurance Programs
This module was prepared by Jeffrey Carmichael. Mr. Carmichael is chief executive officer of Promontory Australasia. Until recently a full-time consultant, he was previously chairman of the Australian Prudential Regulation Authority. His career also includes senior positions with the Reserve Bank of Australia, seven years as professor of finance at Bond University, and appointment to a number of government and private sector boards and inquiries, including the Wallis Inquiry into the Australian financial system. He has published in a number of the world’s top economics and finance journals, including the *American Economic Review* and *Journal of Finance*.

This module was reviewed by Michael Hafeman, Tom Karp, and John Palmer. Michael Hafeman is an actuary and independent consultant on financial sector supervision and related issues. He has held senior positions in both private and public sector organizations in the financial services industry in Canada and the United States. Most recently, he was assistant superintendent of the specialist support sector at Canada’s Office of the Superintendent of Financial Institutions (OSFI) and served as a member of the Executive Committee and the Technical Committee of the International Association of Insurance Supervisors (IAIS) and as chair of its Solvency Subcommittee. Tom Karp is executive general manager of supervisory support at the Australian Prudential Regulation Authority (APRA). Prior to his career at APRA, he was the acting insurance and superannuation commissioner and a key figure in establishing APRA and determining its initial infrastructure. He is a qualified actuary with more than 15 years of commercial experience in health, life, and general insurance. He is a member of the Insurance Regulation Committee of the International Actuarial Association. John Palmer is an adviser on financial sector regulatory matters based in Toronto and Singapore. His professional background includes service with two financial institutions and senior positions with KPMG Canada, including deputy chairman and managing partner. He was superintendent of financial institutions for Canada and deputy managing director of the Monetary Authority of Singapore. He is now chairman of the Toronto International Leadership Centre for Financial Supervision.
A. Introduction ................................................................. 1
B. Framework of each treaty program: Matching class to product .......... 2
C. Matching up exclusions .................................................. 3
D. Scale of each treaty program ........................................ 7
E. Interprogram risks ....................................................... 12
F. Contractual language issues ......................................... 13
G. Timing of reinsurance treaty and facultative coverage .............. 17
H. Credit quality of the reinsurers ..................................... 20
I. Information provided ..................................................... 22
Appendix I. Glossary of terms ........................................ 23
A. Introduction

This background note provides guidance as to the issues that supervisors, particularly in emerging-market countries, need to review in relation to non-life reinsurance programs. This background note is not intended to present an exhaustive list of all things that merit review. It would be rash even to attempt to enunciate such a list of issues with any claim to objectivity. However, there are many instances in which buyers of reinsurance would benefit from some supervisory guidance on how to improve their practices. The following provides some commentary as preparation for the cases studies that follow.

Participants are also expected to have read the IAIS “Supervisory Standard on the Evaluation of the Reinsurance Cover of Primary Insurers and the Security of Their Reinsurers.”
B. Framework of each treaty program: Matching class to product

For marketing purposes, insurers usually organize their business by “product.” For example, in many countries, the insurer represents (and often believes) it is selling “motor” insurance, while, in actuality, the motor policy typically provides the following:

- Motor own damage (excluding natural perils)
- Motor natural perils
- Motor third-party liability, first and third party; in Australia, the third-party bodily injury is insured separately as CTP
- Motor theft
- In some countries, also motor personal accident.

Similarly, a “small business” policy typically provides the following:

- Fire and allied property perils
- General third-party liability
- Employer’s liability
- Some other classes.

From a governance and regulatory perspective, it should be a key discipline to ensure that reinsurance is purchased to cover all the individual risk lines and not simply the main peril in the product line.

For example, in the early 1980s a number of German insurers committed a classic error when they seriously underestimated the extent to which their motor accounts were exposed to natural perils. The 1984 Munich hailstorm did immense damage to many thousands of vehicles, both parked and mobile on roads. Major reinsurance limits had been purchased for third-party liability, but insufficient cover was placed for natural perils.

In a similar vein, but in a less sophisticated context, a U.K.-based insurer once carefully bought cover for a small business portfolio with a “risk excess” up to the top property value required. This also absorbed the general third-party liability limit issued. However, the employer’s liability limit was 10 times as large as the third-party liability limit, with the outcome that the top 90 percent of the employer’s liability limit was not reinsured, simply because the insurer thought that this section of the risk was not important.
C. Matching up exclusions

A major problem has emerged in recent years as a result of the tendency for insurers to operate with reinsurance exclusions that are different from those in force at the level of direct insurance. Traditionally, reinsurers aimed to offer “back-to-back” reinsurance, it being normal practice for their coverage to have exclusions that were as close to the original policy wording as possible. As markets moved from quota share and other forms of proportional reinsurance toward excess of loss, reinsurers increasingly sought to apply lists of exclusions to reinsurance treaties that more and more departed from the coverage provided under the direct insurance policies.

Fortunately, to date, the use of these “unmatched” exclusions has been confined mainly to the casualty field, with particularly elaborate lists often in force for the classes of general third-party liability and employer’s liability. But the same principles hold good for all classes.

An important step for the supervisor is to see whether the direct insurer reviews the treaties when they arrive, sometimes months after the arrangement was entered into. The supervisor should insist that the treaties be reviewed and compared to the slips, with any differences noted for follow-up action. This is the point at which the treaties could be checked for desired clauses such as those described below.

Exclusions fall into a number of categories, and supervisors need to have a clear grasp of these.

Original policy exclusions

It is normal in many markets for original insurance policies to exclude certain types of risks. War, nuclear damage, and, more recently, terrorism in various contexts are standard exclusions across many classes of insurance. Provided the reinsurance treaty carries exclusions that exactly match those in the original policy wording, there should be no supervisory concern. Where the wordings are significantly different, both the insurer and the supervisor should be aware of the implications and exposures being taken. In particular, the supervisor needs to assess the extent of risk transfer, taking into account these differences in wording.

In practice, minor differences in wording can have catastrophic consequences. The preferred text within the reinsurance contract is the following: “It is a condition of the reinsurance that the original insurance policy carries the following exclusionary text.”

A clause like this ensures that the original judicial interpretations, even though they might seem strange at the level of direct insurance, will nonetheless be covered at the level of reinsurance. In this context, it is important to remember that the country in which the original policy judgment will be interpreted may be different from the one in which the reinsurance language stands to be understood.
**Original behavior exclusions**

A second type of exclusion relates to generic business behaviors. Typical exclusions here include the following:

- Delegation of underwriting authority
- Participation in market pools
- Reinsurance acceptances
- Business classes not entertained by reinsurers under the treaty concerned.

Often these exclusions have no active impact on the effectiveness of the treaty concerned and merely exist to formalize something that both parties assume should be taken for granted. However, insurers in emerging-market countries sometimes engage in these types of activities without realizing that they are absolutely excluded by their reinsurance.

Supervisors and management need to work together to establish that the meaning of such exclusions is fully understood and that the active business practice of the insurer does not contravene them.

**Underwriting risk exclusions**

A third type of exclusion may target specific (usually hazardous) risk genres, such as nuclear damage, hazardous products, and medical products. Here there are three main management and supervisory issues:

- Underwriters may overlook the exclusion altogether for a particular risk that is submitted.
- Underwriters may not be alert to the fact that a risk that might appear to be covered (by virtue of its principal occupation not being an excluded class) is nevertheless at least partly excluded (by virtue of a secondary occupation being excluded); it is very important that the wording of the reinsurance and the insurer’s underwriting rules be consistent with one another.
- The insurer may find itself committed to an excluded risk through some form of delegated authority. (For example, some insurers give their brokers signing authority, but the broker may not always follow the insurer’s guidelines.) This may arise despite conditions in the delegated authority, particularly if the intermediary has insufficient assets and insufficient insurance for errors and omissions.

Here the supervisor (or management) needs to investigate the control processes that are established within the insurer. The controls should ensure that the insurer does
not write any of the restricted classes. They will vary with the size and organizational structure of the insurer. The supervisor might review the underwriting guidelines and controls as well as past claims (to see if any were excluded under the reinsurance).

**Underwriting peril exclusions**

As a general principle, reinsurance buyers should aim to reject demands from reinsurers to impose “peril” exclusions. For example,

- Asbestos exclusions
- Exclusions where the outcome is named rather than the occupation, such as “explosion.”

The only satisfactory way to ensure adherence (consistency) between insurance and reinsurance in such circumstances is to import the reinsurance exclusion (with appropriate language amendments) into every insurance policy. This step is often undesirable.

Supervisors should review exclusion lists with a view to identifying any exclusions falling within this category. They should satisfy themselves that the insurer has taken appropriate actions to ensure adequate adherence of coverage.

**Changes and timing of application of exclusions**

At times, reinsurers may impose new exclusions. For full adherence between insurance and reinsurance, new exclusions can only apply to new and renewal insurance business attaching on or after a specified date, by which date the insurer should have had sufficient time to bring the new requirements of the reinsurance treaty into its operating guidelines. Otherwise the new provisions will create gaps in coverage regarding the “runoff” of policies not yet expired or renewed before the new arrangements can be effected.

This is a tricky area because, in the informal arena of reinsurance, the reinsurer or the reinsurance broker does not always tell the reinsurance managers about a new exclusion, and it may not show up on the slip that is issued to confirm the verbal agreement on the reinsurance arrangements. It may first appear in the treaty (contract) that may arrive weeks after the reinsurance arrangements have been put in place. Direct insurers need to put procedures in place (and the supervisor should check that they are in place) to ask the reinsurer or reinsurance broker whether the arrangements contain any new exclusions. Then, when the treaty finally arrives, it should be reviewed carefully to ensure that all material provisions of the treaty are consistent with the slip and with
what the reinsurance manager of the direct insurer was told at the time the reinsurance arrangements were made.

Supervisors should watch for changes in exclusion arrangements and satisfy themselves that the insurer has taken appropriate actions to ensure adequate adherence of coverage. However, this is a difficult area for supervisors because of their own lack of expertise and, frequently, the absence of adequate processes and controls within the direct insurer. It may be more practical for the supervisor to require the direct insurer to have a procedure in place to identify and evaluate exclusions. The supervisor can then test the procedure.
D. Scale of each treaty program

Historically, the single most common cause of insurer failure is an insurer’s inability to meet its liabilities following a major catastrophic event. Excess-of-loss reinsurance was invented as a counter to this hazard. To this day, the exercise of good judgment as to the appropriate limits of indemnity required remains a major challenge for management and supervisors alike.

While the phrase “appropriate limits” means different things in different contexts, three particular variations require clarity.

**Appropriate risk limits**

The need to buy reinsurance up to appropriate per-risk limits is the easiest of the three. In most cases, there should be no difficulty establishing the requisite per-risk limits issued by the insurer. Reinsurance should cover up to this limit.

Potential pitfalls include the following:

- *Property probable maximum loss (PML) underwriting.* Underwriting authority for commercial and industrial property business is often expressed in terms of the PML assessment for the risk concerned. PML assessment has always been an uncertain science. Management and supervisors need to satisfy themselves as to the processes by which any risk is absorbed in excess of PML limits and the reinsurance that is in place to address this risk. Supervisors must also be satisfied that the methodology for establishing the PML limit is robust, is consistent with industry best practice, and produces a reasonable limit.

  A classic example of misappreciation of PML arose with the September 11 terrorist attacks on the World Trade Center. Some underwriters had written the fire risk, committing lines based on the assumption that no fire could realistically be expected to spread beyond five floors of the overall building. Other underwriters had assumed that only a handful of their clients could be expected to have established tenancy in the same building, and yet at least one insurer had dozens of insureds involved in the loss.

- *Motor “unlimited” vertical risk.* Although the legislation in many jurisdictions other than the United States often requires insurers to issue unlimited insurance certificates, the reality is that no reinsurance can be unlimited in practice—the indemnity available to any reinsured is always going to be limited to the ultimate net worth of the reinsurer concerned. This risk can be mitigated somewhat through the purchase of reinsurance having a very high per-occurrence limit, such as $5 million–10 million; although it is possible that a single occurrence could exceed these amounts, the likelihood might be considered acceptably low.
Supervisors and management need to review motor treaty reinsurance arrangements with particular care in this context.

- **Products liability frequency risk.** A potentially critical flaw within many casualty and specific general third-party liability and products liability treaty programs is that the original risk is written on an aggregate basis (and thus may pay many small claims, which is commonly how products claims emerge), but their reinsurance is almost invariably placed on a “per-event” basis. A notorious market problem is the equitable determination of what should correctly be considered one event. Generally, the courts determine this with a rather narrower view than market practitioners expect.

  Examples here are quite widespread, but they include the thalidomide drug losses (very many claimants, but few if any large enough to be a recoverable event), various animal feed losses over the years from the “Texas cattle” losses onward, silicone breast implant losses, Coca Cola ring-pull can losses, and a wide range of automobile product claims, among many others.

  Supervisors should insist that all losses arising from a single product defect be defined as a single event. In the absence of such a definition, the insurer’s exposure would be unacceptably high.

  These are the most significant issues in this context. Less important, but still meriting due care and attention, are the following:

  - Worker’s compensation/employer’s liability (WCA/EL) may or may not have effective policy limits in various areas. Reinsurance should be structured appropriately.
  
  - Many general third-party liability policies have no limit in relation to costs in addition. Similar considerations apply for many professional indemnity coverages. A judicious allowance needs to be made for this risk in assessing the appropriate overall reinsurance requirements for these classes.
  
  - Inherent in the business of being an insurer is the hazard of a court making an award against the insurer over and above the stated policy limit. Awards in excess of policy limits are fairly unusual outside the United States (although they are not unheard of: for example, in the United Kingdom in the 1990s the court found that Royal and Sunalliance had sufficiently obstructed the handling of a general third-party fire liability claim that it was held liable to pay a sum greater than the original policy limit). It is likely that this type of legal activity may spread more broadly; thus as time passes, it will become increasingly appropriate for managers and supervisors to consider this type of exposure in assessing reinsurance arrangements.
**Appropriate catastrophe limits**

This is surely the single most important decision taken in the process of determining the appropriate reinsurance program for any insurer.

Modern techniques for the modeling of wind, flood, earthquake, and other natural hazards are now sophisticated to such a degree that both the original risk and the impact it might have on an insurer’s portfolio can be modeled to high levels of refinement. The largest insurers have moved toward developing their own modeling capabilities, but most smaller and middle-size insurers are happy to use the services of a range of reinsurance brokers, many of whom can provide the requisite analysis to a high level of consistency.

From a supervisory perspective, it is important for the supervisors to see the following:

- Management’s decision process as to what level of remoteness (typically, loss scenarios of risk frequency ranging from 1-in-125-years up to 1-in-250-years) is considered (a) necessary and (b) affordable in relation to shareholders’ risk appetites
- Fully detailed modeling processes by which the relevant conclusions are reached.

Catastrophe modeling considerations apply to many classes, not just property. Classic errors of risk misappreciation in this context include the following:

- *Motor own damage.* Common natural catastrophe hazards include hailstorms (refer to section 2 in relation to the disastrous Munich hailstorm of 1984). Hail is a major issue in Australia, South Africa, France, Germany, Argentina, Chile, the United States, Canada, and other countries. It has even been conjectured that there is a meteorological correlation between the occurrence of hail catastrophes and the location of good wine-growing regions.
- *Crop insurance.* Similar considerations apply. It may be hard to demonstrate the extent to which different loss locations form “one occurrence” in crop insurance. This often gives rise to a preference for a stop-loss structure in this class.
- *Personal accident.* The disastrous tsunami loss in the Indian Ocean surprised some insurers, particularly in Scandinavia, when the terrible loss of life gave rise to substantial unknown personal accident accumulations. There is an obvious correlation between personal accident and property in relation to the earthquake hazard.
- *Marine (hull and cargo).* Marine insurers have long been conscious of the scope for unknown accumulations in their business. The disastrous 1976 conflagrations at the Julfa customs post on the Iran-Azerbaijani border gave rise to un-
expectedly large losses because administrative delays held up traffic, creating major backlogs.

- **Worker’s compensation/employer’s liability.** Underground mines have been producing serious disasters for centuries; even today the death rates in China are serious. The Alexander Kielland and Piper Alpha losses in the North Sea (1980 and 1988, killing 123 and 167 people, respectively) showed that industrial technology has not always kept pace with evolving hazards. Piper Alpha is still being litigated 16 years later, with the ultimate costs of employer’s liability loss running well in excess of £100 million. The World Trade Center attacks produced worker’s compensation claims running into the billions.

Property exposures themselves can be immensely complex to analyze and model. The generalities above are clearly true enough in relation to private dwelling home portfolios and are significantly true for small and medium commercial business, but large industrial property business can be a very different matter, particularly where business interruption or difference-in-conditions coverages are involved.

Motor third-party risks were long thought to be benign as regards the peril of attracting unexpectedly large claims. Reinsurers for many years were willing to presume that exposure above levels of say €25 million or €50 million was nominal enough to be disregarded. However, the experience of catastrophes such as the Mont Blanc Tunnel fire in 1999 (39 dead, but incalculable business interruption) and the contemplation of terrorism risks after the World Trade Center attack have led some insurers to contemplate probable maximum losses in excess of €1 billion for this class.

**Systemic risks**

The ebb and flow of the economic cycle often correlates with different types of losses. For example, exposures such as arson and theft tend to escalate in down cycles and diminish in up cycles. These can have predictable cyclical impacts on insurers’ results, which should be planned for.

More serious for insurers are the types of risks that are harder to predict or manage, but that can have highly correlated outcomes when they do occur. Examples include the following:

- **Actuaries’ professional indemnity.** Actuaries often use the same analytic systems and processes in the course of their business. If it emerges that their basic approach to giving advice in one or another context is centrally flawed, the claims would be dramatic and possibly crippling in expense.

- **Property-related professional indemnity.** The 1990–93 U.K. property crash brought with it a welter of surveyors’ and other professional indemnity claims.
Individually they were manageable; collectively they amounted to significant sums.

- **Other forms of professional indemnity.** Many other forms of professional indemnity carry systemic exposure.

- **Directors’ and officers’ liability.** This is a class with severe systemic exposure. Following the “dot.com” boom and bust, large numbers of the related directors’ and officers’ liability policies were subject to substantial claims.

- **Personal injury liability.** Personal injury litigation is inherently subject to systemic risk. Each time the “Ogden Tables” have been revised in the United Kingdom, personal injury insurers have had to increase the entirety of their large-claim reserve perspective. The recent Courts Act (2003) similarly affects all known significant personal injury claimants within the United Kingdom. Comparable developments have affected insurers in many countries, but the issue has been much more serious for countries with an Anglo-Saxon legal heritage than for those with other European backgrounds. Germany and the Netherlands enjoy personal injury compensation frameworks that have been significantly more robust in absorbing social inflation pressures than the equivalent in Australia, the United Kingdom, and the United States.

- **Employer’s liability.** Employer’s liability has similar systemic risks as those just mentioned, but in addition many past employer’s liability and worker’s compensation insurers in many countries have suffered enormously from occupational disease problems.

- **General third-party liability.** Many forms of general third-party liability (including products liability) have systemic exposures. In general, these are not as pronounced as they are within professional indemnity, but many insurers wrestling with asbestos and other “legacy” problems have deep regrets that they ever entertained this class of business.

Stop-loss reinsurance can be useful in dealing with these types of risks, although such coverage is often very expensive.
E. Interprogram risks

Supervisors and management should always be conscious that, although it is standard insurance practice to buy reinsurance to protect individual portfolios of risks and individual classes of business, there are many loss scenarios in which claims will affect multiple portfolios or classes.

The most dramatic example of this occurred at the World Trade Center in September 2001, when as many as a dozen different classes of insurance were all heavily affected by the same event: aviation hull, aviation liability, fixed property, property contents, business interruption, liability, workman's compensation, personal accident, and life are just a few that spring to mind. Insurers had to absorb their per-class and per-portfolio retentions several times on the one event.

This is unusual enough as a phenomenon that it should not necessarily trigger the purchase of specific cross-class retention accumulation protections. Rather, it is important to recognize that this type of scenario can arise and that, if it does occur, there is scope for a balance sheet to be more affected than would be the case with a single per-class retention.
**F. Contractual language issues**

The purchasing insurer can fall into a plethora of “traps” in relation to the “small print” of treaty contractual detail. Twenty years ago it would not have occurred to most reinsurers to ask for contract wordings that so clearly give scope for major divisions of interest between the reinsured and the reinsurer. But the current world is quite different.

Both management and supervisors need to be alert to the presence within reinsurance contracts of a wide range of details through which the fortunes of the insurer may fail to be separated from the fortunes of the reinsurer. They need to read detailed reinsurance documentation with a careful eye to ensure that contractual conditions are not likely to impair the effectiveness of the coverage at precisely the time when it is needed most. Supervisors should exert pressure on insurers to have unacceptable clauses amended or removed from their reinsurance contracts.

**Hours clause limitations**

It is normal market practice to agree to time limits (often 168 hours or 72 hours) within which certain types of catastrophe are to be deemed to occur. Wind and flood disasters often spread over time periods greater than a single day. It would be obviously inappropriate to purchase wind or flood catastrophe cover with (for example) a 24-hour limitations clause.

A major gap appeared in one Australian insurer’s combined casualty program in 1982/83 when the hours clause was applied to all casualty classes (not just motor physical damage). An outbreak of bushfires in Victoria and South Australia gave rise to an original general third-party liability policy settlement that was on the order of 13 original policy limits (thanks to a reinstatement limitation in the direct insurance). However, the reinsurance program was structured to respond only to one limit. It took some years of careful negotiation to resolve this problem, which would have had significant impact on the free solvency of the insurer concerned.

**Claims control clauses**

It is a critical everyday reality that the insurer, not the reinsurer, is “in the firing line” as regards claims. The insurer issues the policy and is liable for the claim.

Increasingly, reinsurers are seeking to intrude in this process. “Claims control clauses” are becoming more common, and sufficient thought is not always given to their implications. The contractual implications may be draconian and give rise to the following types of questions:
• Is it feasible for a multiplicity of reinsurers all simultaneously to “control” the decisionmaking process within the evolution of a claim file?
• Timing pressures can often make the strict adherence to some clauses absolutely impracticable. How is non-adherence to be resolved in such cases?
• Legal process may demand a certain pattern of behavior of an insurer that is beyond the behavior envisaged either by a reinsurer or a claims control clause. Is the reinsurer entitled to apply contractual remedies despite the insurer acting evidently in good faith?
• Specific consultation or approval provisions may be inherently impractical. Recent examples within the United Kingdom include the requirement that an insurer must obtain prior approval of all reinsurers before purchasing an annuity. In some cases, it is envisaged that the court may order the purchase of the annuity. This would give reinsurers a very simple technique with which to avoid all liabilities in an obviously unfair manner.

Such clauses may give the reinsurer the right to withdraw or deny coverage if the requirements of these clauses are not met. This has implications for provisioning.

**Claims notification clauses**

Many problems have arisen through poor communication between insurers and reinsurers. As a consequence, reinsurers have often imposed “claims notification” conditions. Some of these are quite onerous, requiring the reporting of many claims of modest potential in order to ensure that large claims are identified and managed appropriately.

These clauses can have disastrous consequences for the insurer. The Australian Government Insurance Office in the 1970s was finally convinced to accept some extremely limited reparations from reinsurers when it was discovered that substantial numbers of severe injury cases rested on their books without specific case provisions and without appropriate reporting to reinsurers. These undermined the validity of the reinsurance placements to a degree that might well have had serious balance-sheet implications for a nongovernment carrier.

Such clauses may give the reinsurer the right to withdraw or deny coverage if the requirements of these clauses are not met. This has implications for provisioning.

**Warranties and conditions precedent**

An unfortunate tendency in reinsurance contractual language over many years has been the introduction of legal terms such as “warranty” and “condition precedent.” These
terms have legal implications that often are wholly disproportionate to their context and can be immensely damaging for an insurer. Best practice is to eradicate their use.

**Claims-made language discrepancies**

Original policy language can vary considerably in the context of “claims-made” classes like professional indemnity, directors and officers, and medical malpractice. The distinction among the date the first medical practitioner is consulted, the date the claim is notified to the original insured, the date the claim proceedings are initiated, and the date the insurer is first notified can be a minefield for the effectiveness of reinsurance.

A recent example in a European country arose when the insurer issued coverage on the basis of “claims made against the insured” during the policy period. The insurer then administered all its business on the assumption that its policies operated on the basis of “claims made against the insurer” during the policy period. The reinsurer denied liability for some large claims because of this unintended maladministration. Fortunately, the reinsurer concerned only had a small participation, but on a larger scale this could have created significant difficulties for the insurer.

**Acts-in-force clauses**

Reinsurers often have tried to control their exposure to developing legislative changes by introducing “acts-in-force” and “change-in-law” clauses. The aim of these clauses is usually to have the reinsurance continue to be administered on the theoretic principle that the law did not change and that a reinsurer’s liabilities should be assessed only on the basis of acts in force at the treaty’s inception.

Both supervisors and management should insist that insurers not accept these clauses. The principle should stand clear that the insurer is buying reinsurance to cover its exposures on the same basis as the original exposures are accepted.

**Most favored reinsurer clauses**

These clauses can cause unimagined problems and can invalidate otherwise perfectly good reinsurance placements. They should not be accepted for many reasons, not least because nobody can predict at inception how different reinsurers’ lines may vary even during currency (with special acceptance requests) or after expiry (with commutation agreements possibly being concluded for specific, perhaps impaired, reinsurers; other reinsurers could then demand the same favorable terms).

Reinsurers may want assurance that they are being treated equitably in comparison with other reinsurers, but there are powerful arguments to resist such conditions, and
both management and supervisors should be alert to the potential for damage to an insurer's balance sheet if they are present in contractual conditions.

**Jurisdiction limitation clauses**

Another highly undesirable form of exposure control that reinsurers occasionally attempt to introduce is the jurisdiction limitation clause. Regardless of language in the direct insurance policy that may seek to limit the jurisdiction, there is always a risk that, through one legal process or another, the insurer may find itself drawn into a dispute within another jurisdiction (such as the United States). It is a serious hazard to the validity of a reinsurance indemnity that the development of insurance claims in an excluded jurisdiction might of itself invalidate the reinsurance coverage.
G. Timing of reinsurance treaty and facultative coverage

It is surprising how often the reality of commercial pressures leads insurers to put themselves in the temporary position of issuing insurance cover without having matching reinsurance coverage. This happens in a number of ways. Good management and good regulation should seek to eradicate as many of these as possible. We list four main instances.

Late placement

In the case of excess-of-loss placements, negotiations often are protracted toward the renewal date, with a final agreement only being reached with leading reinsurers shortly before the due date. This late-negotiation procedure has elements of “playing poker” on both sides: additional options may materialize for the buyer during the extended negotiation period, or the buyer may run out of time to complete the placement prior to “going on risk” at the due date. The reality can be that, as the due date passes, some of the supporting reinsurers may not have had time to study the information, ask questions if necessary, and pass through internal acceptance procedures before confirming cover to the insurer.

A key discipline ought to exist, in every case of both treaty and facultative reinsurance, that full placement is confirmed to the insurer prior to the due date of going on risk.

Runoff exposure

For good reasons, many excess-of-loss treaties are placed on the principle of cover being triggered by “losses occurring during” the period. This separates the reinsurance coverage timing from the original policy coverage timing—the insurer buys natural peril catastrophe cover (for example) for losses occurring during 2005 (for example), and this protects original policies incepting during 2004 (the June 1, 2004, to May 31, 2005, policy year direct insurance risk would be protected by the 2005 treaty for its final five months of exposure) as well as those incepting during 2005 (likewise the March 1, 2005, to February 28, 2006, direct insurance risk has its first 10 months of exposure covered by the 2005 treaty).

A potential difficulty arises as the year 2005 progresses in relation to the uncertainty whether comparable cover for 2006 can be renewed. The fact that for many years comparable cover has always been available is no guarantee that this will continue. A classic example arose in the final months of 2001 after the World Trade Center attacks: many insurers were on risk with full terrorism coverage in force for many aspects of their business, but reinsurers were understandably reluctant to renew treaty
coverage for 2002 without stringent terrorism exclusions. Aviation war insurers had prepositioned themselves against this contingency by including 14-day-notice periods in original policies, which were promptly triggered, but many insurers of other classes of business simply were unable to cancel their original insurance exposures, although they were unable to renew comparable reinsurance coverage. As is well known, the U.S. government was pressured into enacting the Terrorism Risk Insurance Act to resolve this and other issues, but such political responses cannot be guaranteed.

One way to address this problem is to purchase reinsurance on a “risks-attaching” basis (whereby reinsurers provide cover for all risks incepting during a given period). This is inherently less suitable for catastrophe coverage than it is for per-risk and casualty coverage. An alternative is to insist that reinsurance treaties carry a “runoff” clause that guarantees coverage for the “runoff” (that is, the unexpired period of original risks that otherwise were in force at the expiry date of original insurances).

Care needs to be taken with such clauses, as they often amount to a statement of loose intent (“at terms to be agreed”), which can be impractical to enforce in difficult situations, as experienced by many insurers in the closing weeks of 2001.

Risks quoted but not yet bound, risks bound but not yet incepted

A similar problem exists in relation to risks quoted or bound prior to their inception: the insurer is committed to providing the cover (even though it may not yet be formally on risk), but the reinsurance cover is not placed. Few insurers are able to address this element of the “timing” risk comprehensively. Best practice would require insurers to secure reinsurance prior to committing themselves to providing original coverage, but this is beyond the current requirements of most insurers and regulators.

Matching of periods: Discovery issues

Both regular and irregular insurance policy periods should be matched by comparable reinsurance conditions. In classes like professional indemnity and directors’ and officers’ liability, the original policy period has a “discovery” provision (often providing coverage for extended periods of time, sometimes as long as six years after expiry, for the insured to “discover” claims that had occurred prior to expiry and that in some sense “should have been” reported to the policy year in question). Reinsurers often aim (and sometimes succeed) in having their liability as to timing curtailed in specific ways, but best practice requires full matching cover.

A Bermudan insurer of directors’ and officers’ liability once found itself in the position of issuing coverages with six-year extended reporting provisions (“discovery” clauses), while buying a losses-occurring-based treaty without adequate runoff provisions. When a number of original insureds elected to trigger their “discovery” clauses,
the insurer found itself faced with six years of unreinsured exposure and minimal premium with which to purchase any coverage.
H. Credit quality of the reinsurers

Although reinsurance typically transfers underwriting risk from an insurer to one or more reinsurers, it leaves the insurer exposed to credit risk with respect to its reinsurer counterparties. Dealing with this risk is an enormous subject, and the text that follows provides just a few basic principles.

**Short-tail criteria versus long-tail criteria**

Higher credit quality criteria are typically required for reinsurers that assume longer-tail exposures. The natural pattern of the counterparty credit risk is that time is a great dissipater of credit quality. What might seem acceptable in the context of a 12-month or 18-month time frame has to be given an entirely different perspective when it comes to classes like casualty, where recoveries may be required over 10 or more years.

Current standards usually contemplate an acceptance range down to Standard and Poor’s (S&P’s) “A minus” (or equivalent with other ratings agencies) for short-tail business and S&P’s “A plus” for long-tail business. However, specific relationships and understandings give rise to different interpretations for different insurers and reinsurers.

Both supervisors and management need to ascertain that acceptable corporate disciplines are in place, including the following:

- To make an appropriate assessment of the short- and long-term credit quality of individual reinsurers
- To prevent the use of reinsurers that lack appropriate security
- To ensure that best efforts are made at all stages of purchasing reinsurance toward minimizing counterparty credit risk and avoiding the concentration of such risk (even with a highly rated reinsurer)
- To monitor the quantum and spread of exposure to individual counterparty credit risks, both by economic exposure to known case provisions and actuarily estimable incurred but not reported claims, and to realistic disaster scenarios, such as major catastrophes
- To monitor the claims payment response times of individual reinsurers
- To monitor the evolving credit exposure to reinsurers with current economic exposure to the insurer, whose credit rating has been downgraded
- To take appropriate action to manage credit exposure in the light of any deteriorating patterns highlighted by the above monitoring processes.

The reinsurance recoverable asset is commonly one of the most substantial items in an insurer’s balance sheet, and its quality is a key determinant of the health of any insurer. In the past, regulators have generally taken only a limited interest in the reinsurance recoverable asset, but time has shown how central the quality of this is to the...
health of all insurers, and they have gained a greater understanding of the underlying issues. This trend is likely to continue.
I. Information provided

Insurance and reinsurance alike are contracts that in virtually every jurisdiction are subject to the Uberrima Fides principle. This makes for immense difficulties for the supervisor, for whom checking that the information provided to reinsurers fulfills the relevant duties of disclosure and accuracy must be a next-to-impossible task.

Yet the failure to provide full and accurate disclosure to a reinsurer can be the simplest reason for a reinsurer to deny liability. Thus the validity of any reinsurance program, no matter how comprehensive and well designed it might appear on paper, is subject to complete nullification in the event of failure on the part of the insurer to fulfill this fundamental principle. This, in turn, can substantially undermine the financial standing of any insurer.

Accordingly, a significant part of the supervisory process should be to ensure that the steps and procedures in place at any insurer are correctly founded to deliver sufficient and accurate information to reinsurers and to minimize the risk of reinsurance placements being overturned on grounds of nondisclosure.

Key points on which to focus include the following:

- Accurate declarations of premiums
- Accurate and timely declarations of claims
- Appropriate reporting to reinsurers of all issues of material exposure
- Full updates including all material changes to be provided to reinsurers at each renewal.

Appropriate updates need to accompany each and every contractual change—for example, the request to endorse or change the arrangements for any facultative or treaty risk bring with them a fresh disclosure obligation.
Appendix I. Glossary of terms

AASB
Australian Accounting Standards Board. Responsible for the development and promulgation of accounting standards.

AAT
Administrative Appeals Tribunal. Body which provides independent review of a range of administrative decisions made by the Commonwealth Government and some non-government agencies.

Act
Insurance Act 1973. Formed the basis for the regulation and supervision of general insurance companies from 1974 until 1 July 2002.

AGA
Australian Government Actuary.

AP
Average Provision. Provision discounted by number of reported and outstanding claims.

APRA
Australian Prudential Regulation Authority. Prudential regulator of the Australian financial services industry.

ASC
Average Settlement Cost. Settlement cost during a period divided by number of claims finalized during period.

ASIC
Australian Securities and Investments Commission. ASIC is the Government body responsible under the Corporations Law for regulating companies, the issue and sale of shares, trust units, company borrowings, and investment advisers and dealers. ASIC administers those provisions of the Corporations Law dealing with the conduct and disclosure obligations of financial service providers, including general insurers.

ASX
Australian Stock Exchange. Main Australian marketplace for the trading of equities, government bonds and other fixed interest securities.
AWE
Average Weekly Earnings. This is the index commonly used as a basis for general claims inflation.

Central estimate
Statisticians refer to measures of central tendency of distributions. Such measures include the mode, median and mean. The mean is usually the intended measure of actuaries measuring the central estimate of a liability.

CHE
Claims Handling Expenses. Refer to FCHC.

CMV
Commercial Motor Vehicle. A class of insurance.

Combined Ratio
The ratio of management and general expenses and claims cost to premium. Although a combined ratio in excess of 100% might suggest loss-making business, investment earnings also need to be factored into such considerations.

Corporations Law
A national system of law and regulation for corporations and the securities market (now the Corporations Act 2001).

CPI
Consumer Price Index. A quarterly measurement of movements in the prices of a fixed basket of household goods and services.

CTP
Compulsory Third Party. A compulsory class of insurance covering motor vehicle drivers against injuries to third parties.

DACs
Deferred Acquisition Costs. The portion of acquisition costs not recognized as an expense during the period when incurred but carried forward for the purpose of matching against subsequent revenues that will be bought to account in later financial years.

D&O
Directors and Officers Liability. A class of insurance.
DID
Diversified Institutions Division. Supervisory division of APRA with responsibility for conglomerates with business activities in more than one financial sector industry and groups with significant foreign operations or foreign connections.

DMV
Domestic Motor Vehicle. A class of insurance.

E&O
Errors and Omissions. A class of insurance.

EL
Employer’s Liability. A class of insurance.

FCHC
Future Claims Handling Costs. The provision for the costs to be paid in the future in respect of managing claims in respect of incidents that have already occurred (and have been provided for). The acronym CHE is often used for claims handling expenses and may, depending on context, refer to future CHE.

FITB
Future Income Tax Benefit. Intangible asset representing the estimated amount of future saving in income tax likely to arise as a result of either the reversal of timing differences or the recoupment of carried forward tax losses.

GST

GTPL
General Third Party Liability. A class of insurance

HH
Home and householders. A class of insurance.

HRR
Highest Risk Retention. The largest sum insured retained by a direct insurer.

IATA
Insurance Acquisitions and Takeovers Act. The IATA sets out the rules in relation to control of, and compulsory notification of proposals in relation to:
• the acquisition or leasing of assets of Australian registered insurance companies; and
• the entering into of agreements relating to directors of Australian registered insurance companies.

**IBNER**
Incurred But Not Enough Reported. The (usually non explicit) component of a claims provision which is the difference between case estimates and the amount provided for all reported claims.

**IBNR**
Incurred But Not Reported. The (often non explicit) component of a claims provision which allows for the cost of settling claims that have not been reported to the insurer but for which the incident giving rise to a claim has already occurred.

**ISC**
Insurance and Superannuation Commission. The supervisor of insurance companies and superannuation funds prior to the establishment of APRA.

**ISR**
Industrial Special Risks. A class of insurance.

**JV**
Joint Venture.

**LOC**
Letter of Credit. Contractual agreement to facilitate trade by substituting the credit of a bank for that of the customer.

**LOD**
Losses Occurring During.

**Long tail**
Classes of insurance are usually classified as either short tail or long tail depending on what period typically elapses between an incident giving rise to a claim and settlement of the claim. Although there is no specific cut off point for the division, where this delay is typically more than 1 year the class would be long tail where as where it is less than 6 months it would be short tail.

**LR**
Loss Ratio. Ratio of claims expense to premium.
MER
Maximum Event Retention. The highest probable loss an insurer is exposed to usually as a result of natural disaster causing many losses (e.g. homes and cars) in a single geographic region on several policies.

MOU
Memorandum of Understanding. An MOU is entered into with foreign regulators to encourage cooperation and information sharing about conglomerates which they supervise.

NCI
Net Claims Incurred. Claim payments plus increase in claims provision, net of reinsurance and other recoveries.

NCP
Net Claims Paid. Claim payments net of reinsurance and other recoveries.

NMV
Net Market Value. The amount which could be expected to be received from the disposal of an asset in an orderly market after deducting costs expected to be incurred in realizing the proceeds of such a disposal.

Normal inflation
In assessing an appropriate rate of increase for future claims it is usual to start from a base or “normal” level of price increase based on a general economy-wide measure of inflation such as the change in Average Weekly Earnings (AWE) or the change in the Consumer Price Index (CPI). The base is then adjusted to reflect specific inflation in the type of claim (see “Superimposed Inflation” below) relative to the economy-wide measure.

NPL
Non-performing Loans. Loans where the borrower has failed to repay on time or in full, but which are not considered to be in default.

NTA
Net Tangible Assets. Total assets less total liabilities less intangible assets (such as goodwill).

OCP
Outstanding Claims Provision. The provision in an insurer’s accounts for claims in respect of incidents that have already occurred (including IBNER and IBNR). For claims
made classes of insurance this provision is only in respect of reported claims, since only these are covered.

**PA**
Personal Accident. A class of insurance.

**PCE**
Projected Case Estimates. A claim projection technique, used for liability estimation based on patterns of development of reported incurred cost (claims paid plus case estimates).

**PI**
Professional Indemnity. A class of insurance.

**PL**
Public Liability. Also often refers to Public and Product Liability. A class of insurance.

**PML**
Probable Maximum Loss.

**PPCF**
Payment Per Claim Finalized. A claim projection technique, used for liability estimation, based on a rate of finalization (claims finalized per period divided by number outstanding at beginning of period) and average finalization size, each segmented by development period. Generally used for long tail classes.

**PPCI**
Payment Per Claim Incurred. A claim projection technique, used for liability estimation, based on a payment amount per development period in respect of all claims incurred for a given accident period. Generally used for short tail classes.

**PRC**
Policy, Research and Consulting. The PRC Division of APRA provides specialized risk management and consulting services to the other divisions of APRA. It also conducts research activities and has primary responsibility for developing prudential policies relevant to all types of institutions supervised by APRA.

**Provision**
The amount set aside in a company accounts to provide for an expected liability.

Note also that in the Australian context, the insurance jargon often uses the expression “reserve”. The more correct expression is “provision” since a provision is an expense item deducted from revenue in the matching process underlying the periodic
measurement of profit, whereas a reserve is an allocation made from profit. Participants should be aware that many references to “reserves” throughout the Case Study material (especially in the provisioning Case Study) should more correctly be termed “provisions”.

Note that “Provisions” can be called by various names in other countries, including: “Reserves”, “Technical Reserves”, “Claims Reserves” and “Actuarial Reserves”.

**Prudential Margin**
The difference between the provision an insurer holds for a liability and the central estimate of the amount needed.

Note that “Prudential Margin” can be called by various names in other countries including “Provision for Adverse Deviations”.

**RBA**
Reserve Bank of Australia. Central bank and prudential supervisor of banks prior to the establishment of APRA.

**RBC**
Related Body Corporate. Assets of a related body may be counted towards solvency upon approval by the regulator under Section 30.

Also used sometimes to refer to Risk-Based Capital.

**Related Body Assets**
Loans to or investments in related companies. “Related” refers to the ability to control or significantly influence the company. For example, subsidiaries, joint ventures and associated companies. Refer to RBC.

**Reserve**
An allocation from profit to provide for contingencies.

**Risk Margin**
See prudential margin. The term “risk margin” has largely replaced “prudential margin”.

**RRA**
Reinsurance Recoverable Asset.

**RSM**
Required Solvency Margin.
Section 30 Approvals
Section 30 of the Act defines a series of assets not allowable for solvency purposes and gives scope for approval of some classes of those assets to be included in the solvency calculation.

Short tail
See long tail.

SID
Specialized Institutions Division. Supervisory division within APRA with responsibility for institutions and groups operating within one financial sector industry.

Solvency Coverage
Usually used as a ratio of net assets (adjusted for S30 assets in the Australian context) to RSM.

Solvency Surplus
Either the dollar amount of adjusted net assets less RSM or the ratio of the two.

Superannuation
A means of setting funds aside during working life for use as retirement income. Similar to pension plans.

Superimposed inflation
When average claims costs rise at a rate faster than normal inflation, the difference between actual (whether measured historic or expected future) is referred to as superimposed inflation. So, for example, if expected future AWE inflation is 4%pa and overall claims inflation of 8.5% is expected, superimposed inflation is 4.5%.

Technical provisions
Provisions for outstanding claims and unearned premium (though in Australia the latter has been replaced by a premium liability for some purposes).

TPL
Motor Third Party Liability. A class of insurance.

UPP
Unearned Premium Provision. Provision established at the time a premium is received (accrued) and run down over the period of insurance coverage so that the net effect is that premium is taken to income only as periods of claims exposure pass.

WCA
Workers’ Compensation. A class of insurance.