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General Insurance Run Off in Australia – Phoenix or Fowl?

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1 Introduction

Our objectives in writing this paper are twofold. First is to highlight that general insurance run off in Australia is, in its own right, a substantial segment of the overall insurance market. One in which actuaries can take an active role. Secondly, as practitioners in the field, we have set out to describe and discuss the topics we have encountered that we believe are of interest generally and to actuaries in particular. Our intention is that these topics will both serve to inform and to inspire some discussion. Since our experience is primarily with running off business for one of Australia's largest solvent run off companies, solvent run off is the main focus of our discussion.

In more mature insurance markets, including Australia, run off is estimated to be around 25% of total outstanding liabilities. Run off business is seen by some as the ugly duckling of the insurance industry, being a negative management distraction and having arisen out of past problems that people would rather forget. We are of the view that run off deserves positive acknowledgement and attention in its own right, with potentially Phoenix like qualities to deliver value.

The run off industry is now a substantial part of the insurance sector, both globally and in Australia, and there are certainly some unique features worthy of discussion. At least in Australia, the subject does not appear to have been significantly addressed in actuarial literature. We find this surprising. Whilst one paper cannot, and will not, provide a complete view of the subject, we hope that it will provide some insight into the features of and approaches required in the run off environment.

Our discussion reflects our personal experience to date with run off, with an emphasis on the practical problems we have encountered and how they might be addressed. Whilst we have aimed for the paper to be accessible and informative, we have not attempted to author a paper that addresses the run off sector and associated actuarial inputs from first principles.

In terms of approach, we start with brief overviews of what the market is and how it has developed recently. From there we have a high level discussion of some key issues, followed by more in depth discussion of selected topics that we believe are of particular actuarial interest.

2 What is run off?

By “run off” business we are referring to insurance (or reinsurance) companies or portfolios that are closed to new business and where the remaining exposures and claims are being managed to zero. The term applies equally to entire companies and to relevant portfolios within ongoing companies. We also use “run off” to describe the process of managing a run off business.

Whilst we do not intend to explore in depth the reasons behind why a business may go into run off, consideration of the insurance cycle is a useful starting point for a discussion on run off business. In simple terms the cycle runs as follows:

1. Competition in the market is relatively light, enabling high prices;
2. The market is seen as being highly profitable, and thus attracts new capital – creating increased competition;
3. The increased competition leads to a lowering of prices and hence lowered profitability;
4. Particularly in the longer tail businesses and inwards reinsurance markets, lower prices become unsustainable, yet persist too long as the true claims cost emergence is deferred;
5. Eventually competitors realise that the price competition is unsustainable and many withdraw from a market – often because they are running out of capital or are not generating adequate returns on their capital;
6. Prices start to increase as capital is withdrawn from the market; and
7. The cycle starts over again.

Each time the cycle repeats, blocks of orphan business which are no longer being actively underwritten, and sometimes entire companies, are left over with substantial claims (both by value and volume) needing to be run off.

Whilst the cycle is the main generic generator of run off, from time to time business will be put into run off for other reasons. For example, in Australia in recent years the overhaul of insurance prudential regulation appears to have been a catalyst, whilst issues such as the ongoing Australian crises in liability claims costs and medical indemnity have also been contributory factors.

Industry rationalisation can also be a creator of run off. Following a takeover, there will often be pressure to rationalise or streamline product lines, as well as a need to simplify corporate structures in order to realise synergies. These factors will create both run off portfolios and, possibly, subsidiary companies in run off.

Extending this idea further, we regard older books of business capable of generating latent claims as part of run off. The current emerging asbestos experience on older liability policies is a prime example.

Some people regard run off as simply specialist claims management, often having arisen from failure of previous weak management. We do not share this view. Whilst admittedly putting a business or a portfolio into run off may have been a consequence of historical bad management, it equally should be about good management and addressing of some of the following questions:

- Does the business continue to use capital in the most efficient manner?
- Do we have the abilities to profitably compete on this line of business, both in terms of competence to deliver and / or positively complementing other business?
- Has the environment changed to undermine our previous assumptions?

Run off is also wider than just claims management. It is necessary to have a focus on other insurance issues including liability reserving, capital management and recovery of value for assets (particularly investments and reinsurance and retrocession related assets).

Nonetheless, even pure claims management can require a different approach in run off. Often the shareholders no longer have concerns about protecting a brand to use in building new business, and simply require some form of ‘finality’ as cost effectively as possible. This in turn flows through to the claims management strategy. For example, in a reinsurance run off a strong focus on getting off risk through unwinding (commuting or cancelling) complete contracts may be needed.

Whilst initially run off claims management is likely to encompass a wide range of short tail and long tail business, the emphasis shifts quickly to predominantly long tail, requiring appropriately specialist skills and a focus on effective litigation management. Actuarially these will often be some of the more diverse and challenging liabilities to value.

As indicated, run off extends to a wide range of insurance management skills. There is still a need for a full suite of financial support, including actuarial involvement in valuation and capital management. Indeed, in the early days of run off, the company has often been in serious financial trouble and the need for appropriately skilled professional input, with a focus on liability reserving and capital management, is paramount. This may extend to a need for skills in transferring portfolios of business, closing companies down and in dealing with regulators.

Run off is not simply constrained to companies that are no longer writing new business. Many healthy ongoing organisations have entire portfolios of business, which they are no longer writing and are running off. This includes the late emerging latent claims, such as asbestos. Such portfolios present several challenges including:

- They are often an unwelcome distraction, not to mention costly (claims may be increasing seemingly unchecked, management effort may be diverted, etc.);
- Often the records are incomplete or difficult to access (eg. original underwriting or reinsurance information), resulting in the portfolios being difficult to understand, identify and/or quantify;
- The portfolios are hard to isolate / contain, and hence to dispose of (other than via reinsurance, which is not a complete solution as it is usually capped and leaves residual credit risk); and
- The skills and resources that originally supported the writing and management of the business may be long gone.

3 **The market**

3.1 **Australia**

Whilst now, perhaps, emerging on the other side, in recent years the Australian insurance industry has been in turmoil. A number of high profile insurers and reinsurers have found themselves in serious difficulty, with some going into liquidation. Many of these are now in run off. Perhaps the most spectacular of these was the HIH/FAI collapse in 2001.

Alongside this there has been a period of substantial rationalisation, both in terms of acquisition and a tighter focus on the types of business insurers are prepared to underwrite. One consequence is that many ongoing insurance groups have blocks of business (or indeed entire subsidiary entities) in run off.

Examples of sources of run off for ongoing companies include:

- Business written through pools such as Australian World Underwriters, the market marine pool, the state insurance PIDO pool, etc.
- Small lines of inwards reinsurance often dating back several decades,
- Discontinued business lines (eg. the recent exits from builders warranty insurance), and
- Historical latent claim exposures (such as asbestos – which can also arise from non-insurance entities).

Even some life insurance companies have turned out to have some general insurance run off, eg. through exposures to workers compensation.

As a gauge of the extent of the run off market in Australia, the following statistics taken from the general insurance section of the Australian Prudential Regulation Authority (“APRA”) web site are instructive¹.

There are currently 9 authorised general insurance Non-Operating Holding Companies and 110 insurers authorised to write new business. By comparison there are 32 insurers only authorised to conduct run off business. These statistics exclude the HIH / FAI companies and New Cap Re, which are not formally authorised, yet are definitely in the broadest sense ‘insurers’ in run off. In other words at least 22.5% and, perhaps, 25% of current Australian insurers are in run off.

Overlaying this, 18 insurers have had their insurance authorisations revoked since 1 January 2002. Assuming these companies were in run off prior to revocation, this means that only a year ago perhaps as many as 30% of Australian insurers were in run off.

Reliable statistics to assess the relative size of run off by insurance liabilities are less readily available. Analysis of APRA data for 30 June 2002 compared with their current list of insurers in run off suggests that there are run off liabilities of around \$1.7 billion inside Australia. However, amongst others, this excludes HIH, New Cap Re, and the outside Australia assets of Gordian RunOff Limited (formerly GIO Re). There is also no easy way to identify run off portfolios sitting within ongoing companies. In reality therefore the figure is understated by several billion dollars. When factoring in the

¹ Data sourced from APRA web site www.apra.gov.au as at 24 October 2003.

omissions, we estimate that the true run off market in Australia is likely to exceed \$8 billion in insurance liabilities.

The following table shows the 32 run off insurers broken down by year of entering into run off.

Year	1985	1987	1992	1993	1997	1999	2000	2001	2002	2003
No.	1	1	4	4	1	3	3	4	9	2

Where no year is shown then no companies went into run off in that year.

The table highlights a couple of interesting features:

- Many companies have been in run off for 10 years or more (and one for 18 years);
- There are at least two peaks in the data – 1992/3 and 1999/2002. Note that the HIH and New Cap Re events would fall within the second period, but are not captured by the data.

The 1992/3 and 1999/2001 peaks are indicative of the insurance cycle in action, but, whilst not necessarily unrelated, 2002 (and 2003) also reflect the industry response to the introduction of new prudential regulation.

On the basis of a crude extrapolation, 2007 looks like it may be the next peak for insurers going into run off. Implicit in that thought is a challenge to the industry and to regulators to prevent it being an unduly negative and harmful event – we still have 4 years.

The above statistics indicate that run off is a substantial sector of the Australian insurance industry in its own right, even without factoring in run off portfolios that sit within ongoing companies. Not only that, but the companies newly in run off will be around, and require managing, for many years to come.

In response to the above, specialist run off managers are now starting to appear in Australia. Our own organisation Cobalt RunOff Services is one of these, having sprung initially from the need to effectively manage GIO Re out of its problems in 1999. There are also other organisations servicing the run off market, including claims managers, lawyers, specialist auditors and consulting actuaries.

Notwithstanding the above, the run off market in Australia is relatively in its infancy as a recognised niche.

APRA have clearly recognised the existence of run off. In a sense, through their tight supervision of marginal companies, one could argue that they themselves are already in the business of run off management. More generally APRA operate tight constraints around capital extraction from a run off entity.

3.2 Other markets

Whilst our focus is primarily on the Australian market, we thought it would be useful to make some brief observations on the run off industry elsewhere.

There is a large and active global run off market, particularly in the USA and the UK. Whilst we have not been able to obtain reliable statistics on global size, anecdotal indications are that global run off liabilities could be closing in on US\$500 billion.

We have obtained some specific data on the UK run off industry, which is more established than in Australia. In part this stems from the high profile establishment of the Lloyd's run off entity, Equitas, in the mid 1990's.

For the UK alone at the end of 2002 there were £33.3 billion of run off liabilities, increased from £30.5 billion at the end of 2000. Of these Equitas accounted for 23% (down from 31% at the end of 2000). Overall this is equivalent to 28% of total UK non-life market liabilities.²

It is clear that in recent years the UK run off market has grown significantly despite the continued decline in Equitas liabilities.

Perhaps not surprisingly, there is now a substantial run off industry in the UK with a range of niche service suppliers, as well as run off managers.

² Data in this paragraph sourced from 'The UK Run-Off Survey' by KPMG LLP (UK), published with the August 2003 edition of Run off Business magazine.

4 Features of run off

We discussed above what we perceive run off to be. In this section we look at some of the specific features of run off that we have encountered and some of the challenges that need to be addressed in the run off environment, but with the topics of more specific actuarial interest held over to the following section.

4.1 Transition into run off

There are many reasons why an insurer or portfolio may be placed into run off. These include:

- Statutory or regulatory changes reducing or removing the market for insurance, such as the nationalising of an insurance line.
- A change in strategic direction for a company that places a portfolio into run off. This is often the case when a company purchases another, with the acquiring company strengthening market share in a key portfolio and placing other portfolios into run off where these do not fit the acquirer's strategy.
- Reduced capital backing and, in the extreme case, actual or impending insolvency that causes an entire company to enter run off. In these cases the decision to enter run off often involves regulatory input or intervention. The recent run offs in Australia are no exception.
- A feature of the Australian run off market that may be seen less elsewhere is the closure to new business due to the instructions of a parent company under capital constraints.

When a company or portfolio enters run off, it is important to develop a clear run off strategy and to have a management prepared to act promptly and decisively. This involves strategic planning to determine how best to run off the liabilities.

The strategy may be to maximise the profits emerging over time, with claims actively managed over the life of the run off. Alternatively the shareholder focus may be to achieve finality and release capital as quickly as possible. In this case "success" may be defined as negotiating claim settlements quickly, in line with balance sheet provisions, rather than aiming for savings to balance sheet with extended negotiations. In an ideal world claims would be settled quickly at a large discount to the balance sheet, releasing capital as well as generating profit!

The strategy chosen will have implications for the management approaches taken across the run off.

4.2 Getting off risk

When going into run off, addressing the live exposures must be a priority, particularly so for inwards reinsurance. This is as true for portfolios going in to run off as for entire companies. The approach taken must align with the chosen run off strategy, acknowledging the company's appetite for risk, capital constraints and the extent and quality of existing outwards reinsurance protections. Nonetheless, whilst there is often a case to be made for a phased exit, a quick exit from live risk allows management to re-focus on longer-term strategies or on other parts of the business.

In the first instance, exiting live exposures means looking for and invoking any contract cancellation clauses. However, where there is no right of cancellation, often the correct business decision is to seek to pay policyholders or reinsureds to cancel. One way to achieve this is via refund of premium and complete cancellation of the contract from inception.

The tangible business case for exiting may look marginal, but we have seen the intangible benefits such a strategy can offer. A series of contracts cancelled for one client in 1999 and 2000 resulted in complete avoidance of exposure to a range of events, including World Trade Center, Enron, and the Paddington Train Crash.

More generally, other benefits of getting off risk include:

- the ability to re-allocate capital to other parts of the business;
- a shorter period of run off and faster reduction in the size of the run off, which may lead to cost savings; and
- a reduced need for further reinsurance costs.

We believe a strategy of early exit through cancellation naturally evolves into a strategy of continued pro-active getting off risk, primarily through rigorous contract and claim review (supported by audit where appropriate), contract commutation and negotiated settlement.

4.3 The people

An active company offers a range of roles and opportunities without (in general) an obviously reducing role over time. In contrast a run off insurance company will have a reducing portfolio of exposures, claims and assets to manage and, ultimately, many seek to exit from operation.

To carry out an orderly transition into run off it is often important, at least initially, to retain and engage the right people and to preserve corporate knowledge. One of the bigger challenges is the perception by existing and prospective staff that it is a 'dead end'. For example, an actuary might perceive that run off only provides (limited and reducing) valuation experience. We hope that the later sections of this paper, focusing on some of the actuarial topics, may help to combat that specific view.

One advantage of a specialist run off manager, with a mandate to seek new run off portfolios to manage, is the sense of being part of a developing and growing organization, with opportunities for individuals to broaden their skills and career prospects.

4.4 The regulator

The regulator's role in run off is often as the instigator of run off decisions and, for solvent companies in run off in Australia, as the regulator as the company winds down.

In Australia, subject to any individual specific transition concessions under the recent prudential regulation, APRA requires solvent companies in run off to meet the same prudential requirements as ongoing insurers. These include maintenance of formal compliant risk and reinsurance management strategies, and full ongoing APRA reporting requirements (including an Approved Actuary Report). Portfolios in run off within an active company must be covered within APRA reports and returns.

As the end of the transition period under the new prudential regulation nears in June 2004, there is only a limited framework for meaningful ongoing compliance concessions to be made available to run off companies. It is to be hoped that the GI Mark II proposals for prudential reform address this topic.

In our view it is best to seek to build a regulatory relationship characterised by trust and transparency. Whilst a regulator clearly has a focus on protecting the policyholder, this does not have to be at odds with a run off strategy focused on getting off risk fairly, quickly, and within the law.

The alternative is where management approaches the relationship in an adversarial manner, believing that this demonstrates to boards and shareholders that they don't just capitulate at every request (particularly on capital requirements). Such a stance could prove very costly where regulatory assistance and understanding is required to exit a book of business.

4.5 Other issues

Apart from the items touched on above and the more actuarial topics below, there are other items to consider in a run off context. Briefly some of these are:

- As the run off matures and reduces there is the potential for significant diseconomies of scale to emerge. This can be of particular concern in an environment where, other than some form of capital reallocation / raising, the only sources of funds to meet expenses are existing expense provisions, investment income on allocated capital / shareholder funds, and any savings generated in resolving claims for less than liabilities (including any risk margins). This creates particular challenges for establishing and maintaining appropriate liabilities for claims administration expenses – discussed later in the paper. One of the important needs over time is to create an environment where costs are substantially scalable, yet the benefits of industry expertise remain available. A professional run off manager may be part of the solution.
- A particular concern for a declining portfolio is the IT Platform on which to manage it. Whilst there remains an important need for access to historical information, ultimately all that will need to be managed is a small number of outstanding claims. It can rapidly become un-economic to maintain a full-blown IT system to do this. Again some form of scalable solution is required, albeit that in extremis a simple PC based system may suffice.
- Often the goal of a run off is to deliver overall finality for the portfolio. Obtaining true finality, other than over the very long term, can be extremely difficult, especially where liability business or reinsurance is involved. One approach is through sale of a legal entity, which purely transfers the risk to another party. Alternatively reinsurance of the risk can substantially reduce the impact of the portfolio. However, obtaining uncapped reinsurance is unlikely, there is no guarantee of an acceptable price and there will always be a degree of residual counterparty credit risk with the reinsurer. Another area to explore is to seek a

scheme of arrangement³, either as a legally enforceable means to transfer the business to another entity, or to seek closure with creditors.

³ A scheme of arrangement is a court approved means to obtain binding legal rulings impacting all policyholders / creditors for a structured transfer or wind up of the business.

5 Actuarial issues / opportunities in run off

In this section we explore some of the actuarial topics in more detail.

5.1 Liability assessment

The process of establishing insurance liabilities for a portfolio in run off is very similar to reserving for any insurance portfolio. There is data to collect and examine, models to complete, reinsurance covers to assess, assumptions to set, comparisons of actual against expected results to be made, and presentation and explanation of results. However, there are areas that may have a greater importance when reserving for portfolios in run off.

5.1.1 Understanding changes in claim handling practices

When examining historical claim development, it is important to understand the impact of any changes in claim handling practices. These can result in acceleration or deceleration of payments, sudden changes in the level of reserves across a portfolio, or the frequency with which claims are reviewed. These features may or may not continue going forwards.

For an ongoing insurance company, the claims handlers and underwriters may remain with the company and manage other claims. This staff continuity gives a valuable source of corporate knowledge, which can be tapped to understand what changes to practices occurred in the past, as well as continuity of existing practices. However, if the entire company goes into run off, staff may leave or be distracted from routine tasks by increased uncertainty, with claim updating suffering correspondingly. The events leading to run off, and decision to enter run off, may themselves lead to distortions in claim handling practices such as delays in settling claims.

In our experience, it is important to have a standard set of procedures and guidelines for managing claims and determining case reserves. When a portfolio or company enters run off, the claims should be reviewed in depth as quickly as possible (say over a six month period), in line with the standard reserving principles. This “line in the sand” exercise is likely to result in numerous closures of old files, or large changes in outstanding reserves, on claims that had not been recently reviewed. The exercise also has the benefit of familiarising the claims handling and actuarial team with the key claims within the portfolio. The actuarial data may reflect high finalisation rates on some classes, and lumpy incurred development on others, due to this exercise.

Such changes will partly reflect portfolio experience vastly different from previous assumptions, but may also bring forward claims development that would have emerged in the normal course of events. The former requires a change in provisions, while the latter results in a movement between case estimates and IBNER with little overall reserve movement. Ultimately the decision as to where the result lies between these two extremes is a matter of judgement as much as science. The important thing is to understand that the spikes in development from the initial claims review are not expected to recur.

5.1.2 Actuarial control framework

Any portfolio may have different levels of actuarial review. One actuary may be responsible for preparing and analysing the data, another for valuing a sub-class of business, and another be the Approved Actuary for the company. Valuation reports and work will commonly be peer-reviewed (and may eventually have to be independently peer reviewed following the HIH recommendations). Each will rely on the work of others to some degree.

In this environment it is important to clearly set out agreed roles and responsibilities. The test boils down to “If [this part] goes horribly wrong, who will be in front of the Board/ judge/ Royal Commission explaining what wasn’t done?”!

It is important to both have a strong risk management and control framework yourself, and understand the framework applied by those you rely on. We use an Actuarial Controls Questionnaire, which is a checklist-style list of questions to internal actuaries, valuation actuaries and Approved Actuaries. This is designed to check that all actuarial controls are in place and working correctly for each party, including compliance with relevant standards, particularly in relation to the regular actuarial valuation of insurance liabilities.

5.1.3 Data quality

In our experience, run off companies often face data limitations and the difficult decision of a cost/reward balance in reproducing detailed data for actuarial valuations. Locating underwriting files and information can be difficult as underwriting staff may have left, and the focus leading in to run off can be on writing new business to gain premium income, rather than documenting correctly (or adhering to underwriting guidelines). Premium data and reinsurance information can similarly suffer.

The quality of available data will impact the choice of valuation method. Poor policy or premium information will limit the understanding of historic exposure, and methods reliant on these (eg the Bornheutter-Ferguson variations) may need to be restricted. Instead methods utilising claim development information will become more prevalent.

Poor data quality will also increase uncertainty about the result, and hence affect the risk margin. Any lack of information about the reinsurance programme may also require a higher provision for doubtful debts and result in a higher minimum capital requirement, particularly if the view is taken that unidentified reinsurers should be assumed to be poorly rated.

5.1.4 Risk margins

As a portfolio runs off, the required risk margin increases in percentage terms (although it will decrease in dollar terms). This is due to:

- a) Reducing numbers of open claims resulting in reserves that are more highly influenced by individual large claims, hence the impact of random volatility increases.

- b) Over time, classes of business within the portfolio will run off entirely or reduce to the point where they become immaterial. After several years of run off, the short tail lines will have largely been paid out, with the liability classes dominating the portfolio. There is therefore reduced diversification benefit across the portfolio as a whole.

(In the extreme tail, this effect could, in theory, reverse. As the remaining portfolio becomes a small group of largely uncorrelated claims, the diversification benefit should increase. This will be more than offset by the random volatility in this stage of run off, so attempting to allow for any diversification benefit can be inappropriate!)

- c) As the number of claims reduces, individual claims handlers will manage increasing proportions of the portfolio. The systematic risk correspondingly increases, as a block of claims can move together if there is a change in claims management approach. This correlation from standard claim handling practices is always a factor, but is outweighed by claims volatility in a larger portfolio.

On the other hand, the risk margin percentage may decrease in the very early stages of run off as the manager gains greater certainty and understanding of the risks.

It is difficult to fit a shape to the tail of the claim distribution, to determine the 75% sufficiency level. This is particularly true if approximate or case-estimate based valuation methods are used. There are entire papers devoted to this topic, so we will not cover it here. It is worth noting that, in the volatile tail, the requirement for the risk margin to be at least half the standard deviation is likely to apply.

There is also the need to balance the need for accuracy against the cost of developing detailed models, particularly when the models may only be relevant for a shorter time in the run off situation.

5.1.5 Outwards reinsurance

One of the major relationships of any (re)insurance company is with its reinsurers. After investment assets, reinsurance recoveries are likely to be the next biggest asset on the company's balance sheet. The actuarial valuation approach to this asset will depend on the complexity of the arrangements and the size of the portfolio. In particular, any methods based on the average rate of past recoveries may need adjusting as claims run off or following any commutation of outwards protections. (Commutations are discussed further in Section 5.4.2.)

5.1.6 Claim administration expenses

GGN210.1 requires that “an appropriate allowance should be made for the future costs of claim administration that are not allocated to individual claims”. It also notes “expense levels are often higher for older, more complex claims”. As the portfolios run off, the Claim Administration Expense (“CAE”) provision will increase (in percentage terms), since:

- a) The remaining claims are more complex, so will require more attention than the historical average.

- b) Administration costs tend to move in “steps”, as the number of support staff does not vary directly with claim numbers, so will remain as a cost until they are reassigned.
- c) Diseconomies of scale arise with reducing size. Certain administration requirements do not reduce at all as a portfolio runs off. For instance, the Finance area will need to complete statutory returns while the company exists, and APRA returns until the last claim is run off and the company de-authorised!

There may also be an upfront effect when a company enters run off. Prior to run off, an active company is able to spread certain overhead costs among all operations, including those not directly relating to claims management, such as underwriting and pricing. On entering run off, arguably the only reason the company remains is to manage the remaining claims. At the extreme, *all* overhead costs can be argued to be “costs of claim administration”. As the CAE provision needs to allow for the present value of all future administration costs, this gives rise to a potentially significant increase in the CAE provision at the time a company enters run off.

However, even in run off, some functions may not be regarded as claim administration costs, if the aim of these functions is to improve claim experience beyond that currently expected. These functions can be treated as separate “value-adding” work, rather than day to day claims administration. For example, the cost of preparing for commutations may not be recognised in advance as these typically add value to the balance sheet and may therefore be seen as “self funding”.

5.1.7 Portfolio monitoring

A key part of a valuation involves comparing recent experience to that assumed in the previous valuation. As the portfolio runs off, this comparison becomes more difficult. Projected cash flows or claims development are necessarily at portfolio level and are “average” forecasts. As the remaining portfolio reduces, claim movements in any period are more dominated by individual claims in the volatile “tail” of the distribution. The experience analysis is therefore likely to exhibit actual developments considerably different to expected, which does not necessarily mean that the “average” valuation assumptions are wrong. Clearly considerable scope for applying “actuarial judgement” exists!

5.1.8 Importance of case estimates

As portfolios run off and volatility increases, the ability to predict the future based on the history of the (much larger) portfolio reduces. At the same time, as more information is collected about claims over time, the case estimates for the remaining claims become increasingly robust. Appropriate actuarial valuation techniques will therefore move towards case estimate-based methods, with an assumed payment pattern overlaid to give a basis for discounting. (An allowance for IBNR may be made by examining the number of late notifications in earlier accident years to derive an explicit number of IBNR claims, with an explicit average claim size.) This highlights the importance of the case estimates being robustly calculated. Claims team performance measures should be structured around these objectives – how to assess performance is discussed further in Section 5.2.

As individual claims increasingly dominate the remaining portfolio, expert estimates of how these claims will develop become a useful valuation tool. The assessing claims officer can complete a Maximum Probable Loss (“MPL”) field, where the maximum claim may be materially different from the current estimate. This can help assess the possible development of large claims for the valuation. Over time the actual developments relative to the previously estimated MPL can be tracked to determine the accuracy of these estimates.

5.1.9 Premium liability

For a portfolio in run off, the premium liability can very quickly reduce to immaterial levels. However, there may be some residual premium liability for some time due to multi-year policies or policies with a period of guaranteed renewal. (As an aside, in this situation it is important to ensure that outwards reinsurance protections are not allowed to lapse until the final policy period has expired.) It is reasonable to use approximate valuation methods once the ongoing exposures have reduced to immaterial levels.

5.2 Claims performance

As the portfolio runs off, increasing emphasis is placed on case estimates when valuing the outstanding claim provisions. Performance measures therefore need to appropriately reward the claims managers for:

- Consistency of reserving philosophy across all staff and over time
- Case reserves accurately reflecting all information received.

This is in addition to rewarding claims managers for actively managing claims to meet the agreed strategy. This may include:

- Actively negotiating with claimants/cedants to reduce ultimate payments
- Negotiations to settle claims quickly
- Maximising available recoveries on claims paid.

5.2.1 Claim handling strategy

The claims handling strategy will differ for different classes of business, as well as differ to allow for shareholder requirements as discussed in section 4.1.

Within an agreed business strategy, the claims handling strategy will vary for different classes of business. For directly written liability classes, superimposed inflation can increase claim sizes above the general level of inflation, due to court award precedents, changing attitudes in society and other causes. Over time these increases will outweigh the effect of discounting, so the later a claim is paid, the more is required now as a reserve. The focus for these classes should therefore be on actively settling claims whenever reasonably possible rather than on extended negotiations or legal arguments.

Where claims do not increase over time, the opposite is true. This may be the case for excess of loss (“XOL”) claims or excess layer claims where the maximum exposure is capped and the claim is currently close to the maximum. XOL claims are also less exposed to superimposed inflation, as the retention levels are not indexed or indexed only in line with wage or CPI inflation. The maximum shareholder value in this case comes from taking a more passive approach and allowing claims to develop naturally over time,

while double-checking and challenging every aspect of the claim and negotiating wherever there is ambiguity.

From an actuarial point of view, it is important to understand the claim management strategy in order to project liabilities, as it will have a direct impact on expected claim development experience. Further examination may be required to understand the impact of any changes in strategy on finalisation or payment patterns.

As an illustration of possible strategies, our approach to (direct) claims handling involves several steps. When a new run off portfolio is taken on, a detailed review of all open claims is undertaken. This ensures that case reserves held are appropriate, processing backlogs (eg. in finalising claims) are removed, and allows claims handlers to fully understand their portfolio of claims. It can also be used to set a “line in the sand” for future performance measurement of the portfolio.

Claims are then split into “buckets”. These buckets are:

1. Small claims where indemnity is clear-cut. These claims are settled as quickly as possible.
2. Large claims where strong grounds exist to deny indemnity. These claims are actively contested.
3. Remaining claims (the largest group) where indemnity is uncertain or material information is not yet available. These are carefully managed. For directly insured claims, settlement conferences are regularly held, where claims managers meet directly with claimants around the country, chequebook in hand, to try to agree a settlement.

5.2.2 Performance measures

As with a live portfolio, clear claims performance measures are required. Measures must be specific, easy to measure, easy to communicate, and drive the appropriate behaviours. Some measures we have found useful in run off are:

- Savings on commuted reinsurance contracts, measured against the balance sheet value of liabilities.
- Savings on negotiated claims/settlements, relative to the case estimate
- Value of claims where, as a result of thorough investigation, a claim for which indemnity was previously granted, is denied
- Claim recoveries (from third parties) above expected
- Portfolio size reduces by x% (number or value of claims) in the year
- The proportion of reopened claims is below y% over the year.

There are many issues with agreeing performance measures. These include:

- Whether to measure savings gross or net of reinsurance (and other recoveries). The ultimate impact to the bottom line is the movement net of recoveries. However, different departments are likely to be responsible for settling the gross claim and collecting the recoveries.
- Should savings be measured on all claim movements, or only when a claim (or inwards treaty) is finalised? Measuring all claim movements has the advantage that “savings” move more consistently with total profit for the portfolio. However, a change in estimated case reserves may reverse in a later period. Measuring only

claims finalised is simpler and is less likely to reverse. But if reserves on open claims blow out, the result may be positive claim “savings” at the same time as large overall losses for the portfolio. This requires careful explaining to the Board and other stakeholders!

- How to prevent conflicts of interest, or reconcile conflicting objectives? For instance, if savings are measured relative to reserves held at the start of the year, what procedures are in place to prevent “hollow-logging”, whereby reserves are increased at the end of the previous year to inflate the savings in the next year? Similarly, if staff are rewarded for finalising their claims, the number of reopened claims needs to be tracked to prevent claims being finalised prematurely.
- Are staff measured only on what they can control, or any claim movements? Ideally staff are only measured on what they can influence, for instance if the size of a claim is reduced as a result of thorough investigation or proactive negotiation. New information or new claims may cause portfolio deterioration (or improvement), which is outside the control of claims staff (hence the need for IBNR and IBNER allowances). However, allocating movements between accountable and non-accountable causes generally requires a laborious manual exercise (not to mention some truly passionate arguments!) As with all measures, a trade off between accuracy and effort will be required.
- Should people be additionally rewarded for only “doing their job”? For example, does a reserve reduction constitute a saving if it is purely correcting a mistake made in the previous period? Is collecting a particular recovery, part of which was previously considered “doubtful”, a success, when much of the setting of doubtful debt provisions uses averages across the portfolio? Ideally savings are only measured which arise from a proactive or innovative approach being followed or introduced.

While many of these issues do not directly affect the actuary or the valuation, actuaries are well placed to contribute to these discussions. This can be at a senior level, to ensure strategies are soundly set and performance measures encourage the correct behaviours. It can also be because actuaries collect and manipulate large volumes of data, so are likely to be best placed to set up any automatic measuring systems required. Actuaries may also be seen as independent, with no vested interest in the result. This can become a “policing” role, providing an excellent opportunity to practice negotiating skills (and possibly self defence)!

5.3 Asset recovery

When an insurance company cedes business to another insurance company, this creates an obligation to pay claims under the conditions specified in the reinsurance contract. As claims occur that are covered under the reinsurance contract, a reinsurance asset is created. Asset recovery involves collecting any outstanding reinsurance assets. Assets recoverable also extend to salvage, subrogation and third party recoveries.

The recovery asset is not always recognised for the value it contains. Unmanaged, these items lie dormant or, worse, expose the company to escalating expenses and resources required to collect the debt. In addition, the credit risk with respect to the counterparty can be significant if the debt remains outstanding for an extended period. In our experience,

having a dedicated asset recovery team is essential in delivering an effective asset recovery strategy. This team needs a close working relationship with actuaries to ensure all potential debt is identified and quantified.

In this section we will examine options to manage such exposure in more detail.

5.3.1 Identification of outstanding recoveries

A challenge in run off is the identification of reinsurance assets. A major impediment for most companies in identifying their reinsurance receivables is the underlying information system used to record outwards reinsurance. As the reinsurance industry has developed, so too have information systems. Companies operating under older systems (presuming they've moved on from manual records!) will find it difficult to efficiently identify debt, due to the system's limitations in first allowing a necessary level of detail to be input, then in producing meaningful data and reports. An ongoing risk is that valid reinsurance protections are not identified, and the asset is not recognised.

Once the asset is identified, other challenges include verification and reconciliation against broker records, complications if the reinsurers are identified to be part of an underwriting pool (collections may need to be made from individual reinsurers), and any hindrances arising from market disputes.

5.3.2 Convert the outstanding asset into cash

Once the appropriate systems are in place and recoveries can be attributed to individual counterparties, the first approach is to simply ask for the debt to be paid (which may quickly achieve the desired outcome). However, if there is reluctance on the counterparty's part to pay, then we need to examine how to convert that debt into cash.

5.3.2.1 Approaching the reinsurers directly

Thorough preparation is required before approaching the reinsurer, to constrain costs and time. This means having all required details and background, and most importantly an understanding behind the reason for the reluctance on the part of the reinsurer to pay. The ability to attain a reasonable outcome may boil down to preparation and knowledge or understanding of the contracts in place. Actuaries must understand the range of outcomes, as the result may ultimately be a negotiation rather than agreeing "the right answer".

5.3.2.2 Utilising effective broker relationships

The changing reinsurance market has produced changes in the broking industry, which has influenced reinsurance collection techniques. Broking firms have identified the existence of a market for fee paying debt collection and offer an alternative for recovering debt when companies are unable to deal with the situation themselves.

5.3.2.3 Offsets, commutations and negotiated settlements

Often the reality of managing costs and time may lead to both parties agreeing to compromise by offering offsets or negotiated settlements. For more comprehensive relationships a global commutation may also be possible.

Offsets involve reducing balances owing by the amount of outstanding recoveries owed from the same counterparty. It is important to identify opportunities for offset before opting for alternative measures.

5.3.2.4 Legal avenues

This is the least preferred option. However, this may be the only alternative to settling outstanding balances once all other avenues have been exhausted. Sometimes the threat of legal action is enough to achieve the desired outcome. However, there must be a strong resolve to carry it out if necessary.

5.4 Strategies for exiting risk

Effective strategies are required to manage an orderly and efficient exit from the business. A strategy for a company facing a long-term run off is to manage the run off with a focus on capping or eliminating liabilities. In Section 5.2.1 we addressed the strategy around effective management of the claims run off process. Other key exit strategy components include commutations and maintaining a resolute audit and inspection philosophy.

5.4.1 Audit and inspection

Assumptions are often made about the validity of insurance and reinsurance liabilities - how the contracts were formed, legitimacy of reported claims, expected future cost of claims, even the integrity of the parties forming the contract. Performing an audit and inspection reduces the degree of reliance on assumptions, and allows management to make intelligent proactive decisions based on the facts.

Audit and inspection is particularly relevant for an inwards reinsurer with concerns about a cedant, and much of our discussion below is from this perspective. However, in some situations, a direct insurer may also need to carry out an audit and inspection, eg. where the insurer is a participant in an insurance pool.

Typical triggers for an audit and inspection include poor loss ratios, abnormally large claim frequency/size or perceptible misrepresentations. For an inwards reinsurer, one sign of possible misrepresentation is premium income volumes far exceeding represented estimates, indicating that the cedant's underwriter may have exceeded their delegated authority. Vague contract wording, claims ceded without sufficient supporting documents, and late reporting of claims are all indications that a cedant may warrant closer scrutiny.

Within audit and inspection, some key activities are:

1. Prioritise each audit and inspection activity
2. Review each party's obligation under the contracts
3. Identify problematic contracts / claims and agree in advance with the cedant what is to be provided
4. Apply an understanding of local market conditions
5. Quantify any savings made from the audit activity
6. Recommend an approach for further action
7. Assess the potential for commutation options

Actuarial input into the audit and inspection process is most influential early on, before the audit commences. Given their detailed knowledge of the underlying data and claims development, actuaries can assist in targeting individual cedants or claims that may require closer inspection. The ability to identify problematic claims may lead to a more focused audit that effectively addresses the underlying issues.

Achieving a positive outcome from an inspection will depend on careful preparation, planning, and most importantly, adequate co-operation from the cedant. If the cedant fails to provide the information agreed in advance, this will lead either to postponing the audit or continuing refusal to indemnify claims on the basis of inadequate supporting documents. This is a common outcome and, in most cases, the reinsurer is often forced to “make do” with the information they were able to access.

At the conclusion of an audit, if possible, final “review” meetings should be held with representatives of the ceding company. It is sensible to give the ceding company the opportunity to provide answers and explanations to any issues raised during the inspection to avoid any misunderstandings.

A report of the audit process is typically prepared addressing the objectives, approach, findings, observations and conclusions. This document should be provided to management and, if appropriate, addressed to lawyers to consider any issues which have arisen and to preserve privilege. It may indicate a clean bill of health, which may require only updates in the reinsurer's reserves, otherwise more serious differences between the parties may require some form of dispute resolution procedure such litigation or arbitration.

5.4.2 Commutations

A commutation is an agreement between a reinsurer and a cedant in which one payment or a series of payments settle contractually covered claims that are currently due or will become due in the future.

Expressed slightly differently, commutations are essentially settlement agreements reached between a reinsured and a reinsurer, which effectively terminate the obligation of the reinsurer to pay any future liability. The settlement is reached via an agreement by the reinsurer to pay, at present value, an amount that covers any present or future liability.

Commutations in direct insurance business are rare, so we have focussed our discussions on reinsurance commutations.

5.4.2.1 Reasons for commutations

The importance of commutations will vary by company. An active company may choose to commute contracts in lines of business that it no longer underwrites, while companies in run off may adopt an aggressive strategy to proactively eliminate outstanding liabilities. Commutations are, as covered above, an important mechanism for ‘getting off risk’.

The reasons for commuting will vary between reinsureds and reinsurers.

For reinsureds, ie. who are commuting outwards protections, reasons include:

- Collect any outstanding debt and thereby assist cash flow
- Remove amounts due from troublesome reinsurers where collections are costly and time consuming
- Crystallise reinsurance assets to avoid possible reinsurer failure and the need to hold doubtful debt provisions
- Remove reliance on intermediaries that no longer value the relationship with the reinsured, thus avoiding administration and collection problems
- Resolve a dispute between the parties. Commutation is a commercial alternative to arbitration and litigation and can resolve a dispute where there might otherwise be a re-occurrence of the dispute in the future

For reinsurers, ie. who are commuting inwards exposures, reasons include:

- Achieve finality
- Cap exposure, remove potential for future deterioration, and avoid possible latent issues
- Achieve possible savings against carried reserves
- Remove carried reserves to reduce the risk margin requirement, in particular if commuting more volatile cedants
- Reduce costs by removing paperwork and ongoing claims administration, and ultimately staff needed to administer the business
- Commute with reinsureds in need of capital to leverage the commutation option in exchange for immediate cash
- Resolve a dispute between the parties

A “global” commutation, that removes both inwards and outwards reinsurance arrangements with a counterparty, may also be a consideration where a complete break of relationship is desirable.

5.4.2.2 The commutation process

Not surprisingly it is our experience that there is a direct correlation between the level of focus on the commutation process and the value extracted from final settlement. A focussed approach to commutation involves modelling of contract and cedant volatility, prioritising each project, and understanding in real time the balance sheet value of each contract. Release documents that secure the deal and sign off processes that reflect corporate governance requirements are also critical.

A summary of the stages of a commutation process is:

- Cedant selection – discussing the possibility of commutation with the cedant, both parties agree to supply independent figures for negotiation
- Agreement of scope – agree on cut off dates and contracts covered in the commutation
- Reconciliation – reconciling current balances and agree to starting position
- Evaluation of outstanding liabilities including IBNR – actuaries from both parties to determine future liability

- Negotiation – negotiation between the respective counter parties. If detailed discussions are required on IBNR, then the actuaries will be called upon to justify their projections
- Commutation agreement – drafted if successful, to end the contractual relationship.

It is beyond our intended scope to review each step in the commutation process, rather we will focus on the components where actuarial involvement delivers the greatest value, that is, the cedant targeting process and the IBNR valuation and allocation.

5.4.2.3 Cedant targeting and selection

An effective commutation strategy revolves around being able to target the right insurer/reinsurer. For a reinsurer, there will be some cases where the cedant will make the first approach to discuss a commutation. However, in most circumstances, the reinsurer will have to take the initiative. Whilst the targeting strategy will be different between an insurer and a reinsurer, we focus on a reinsurer's targeting process.

Actuarial skills are particularly important in developing sophisticated targeting models and associated selection criteria.

There are some high level strategies that a reinsurer can adopt in targeting cedants, which include:

- Cedants, with large outstanding balances, in order to reduce uncertainty
- Troublesome cedants that have recently reported high claim volumes
- Cedants that are costly and labour intensive to manage, eg large proportional reinsurers

Applying the above selection criteria will identify the most obvious cedants with which to commute. However, in the long run there is a need for more effective targeting of cedants in order to wind down outstanding liabilities and reduce uncertainty in the portfolio. A key component of an advanced targeting strategy is being able to allocate outstanding liabilities by contract. The IBNR component that is projected for each class of business needs to be determined for each individual contract.

The alternative to undertaking best estimates reviews on every cedant is to devise a methodology that allocates IBNR from a valuation class level down to individual contract level.

The IBNR allocation methodology should closely mirror the process involved in a best estimate review so that the profit impact of any deal can be understood. The method should encompass a contract's individual experience as well as leveraging similar experience for other contracts in the portfolio. Given that the process is purely an allocation exercise, the results will inevitably be approximate. However, care should be taken to ensure the model does not over allocate IBNR where contract limits apply or if a contract has been exhausted or commuted.

Once allocated by contract, the total reserves including IBNR can be recast at a cedant level, enabling ranking of cedants by size. Selecting cedants purely based on size may limit the reinsurer's opportunities to achieve finality through commutations. Our

experience suggests that, apart from being complicated by a large settlement amount, the cedant will most likely have vastly different opinions on IBNR.

Other considerations for selective targeting include companies in run off, cedants requiring intensive administration, and/or cedants with a large number of inactive claims. These factors, and others, can all be blended into a credibility model that produces a weighted ranking based on a chosen set of criteria.

5.4.2.4 Actuarial best estimate / IBNR selection

Although detailed IBNR allocation is most powerful as a tool to enable cedant targeting and selection, it can also serve as a useful “first cut” in actuarial best estimates. The allocation can provide a quick estimate of the outstanding liabilities to determine whether more detailed reviews are required.

Another critical element of the commutation process, where the actuary adds value, is in specific IBNR valuations. This topic is large enough to warrant its own discussion paper, however we will briefly highlight the considerations and some brief methodology.

When constrained by spurious, or lack of detailed, data, the actuary may be in a position where only a high level best estimate valuation is possible. The alternative is to request individual “from ground up” development information from the cedant. This is often met with a polite refusal!

Whilst a high level best estimate normally involves a statistically driven approach to assessing liabilities, it will also require a great deal of judgement, particularly for smaller portfolios. Broad-based averages may no longer be appropriate since individual contract experience may differ significantly from other contracts in the same class.

Traditional actuarial methods such as chain ladder or Bornheutter Ferguson models can be adapted to project estimates at cedant level, provided there is sufficient development history. Other options include projections that use factors from the valuation model or industry statistics, eg. RAA or AM Best, or some form of frequency/severity projection. Overall some element of judgement will be required for calibration.

It may be helpful for the actuary to present final best estimate recommendations as a range of values rather than a single figure. The reinsurer can then choose to negotiate with the low range as a starting point. However, the negotiation process will depend on strategy, which may permit accepting a balance sheet loss to hasten finality. There may also be risk margin releases as a result of the commutation.

Where outwards reinsurance protections are removed, appropriate allowance must be made to both the best estimate recoveries and, potentially, to the risk margin to reflect the higher residual risk to the portfolio.

Finally, actuaries called upon to perform reinsurance best estimates have to manage their role during the negotiation phase. Often they will be called upon to negotiate a position away from the best estimate. It is important to distinguish between the responsibilities of the two roles, ie. explanation of methodology and assumptions, as opposed to negotiation.

5.5 Investment strategy

As with all insurance companies, a run off investment strategy needs to reflect the nature of the underlying liabilities overlaid by the company's appetite for risk and any regulatory constraints.

For ongoing companies, with only some portfolios in run off, the approach may well be little different from that required by other segments of the business. In the scenario of a run off company under capital pressure, the need for liquidity (increasing, probably rapidly, due to reducing premium flows), the degree of risk aversion and the level of regulatory oversight are all usually much higher than might otherwise be the case. These are important inputs into a revised investment strategy from which appropriate (and inappropriate) assets can be identified.

For a new run off the starting point may well be a pot of assets reflecting the remnants of a relatively more aggressive investment strategy (which may, at least in part, have been the cause of any solvency problems) overlaid by some hasty investment decisions taken as management realise their company is in trouble. In other words it is not unusual to inherit a mess.

As with the liabilities, it is important to get an early handle on the investment assets (both what they are and what they may really be worth), set a clear strategy and actively seek to dispose of inappropriate assets. Appointing a new investment manager may also be necessary. Where there is an insolvent situation any disposals need to be within the framework of what the administrator / liquidator's powers allow.

The best assets are likely to be the easiest to sell, but are also likely to be those that may be most appropriate going forward, whilst the most inappropriate assets are often the hardest to dispose of. Whilst every disposal needs to be a well-judged business decision, there is a need for balance between the urgency of the need to dispose and the cost of being seen as a distressed seller, possibly in a depressed market place. If it can be tolerated, often patience is needed, maybe over several years.

It may not be uncommon to find a distressed portfolio backed by relatively large illiquid assets, such as single large properties, obscure shareholdings or a block of securitised mortgages. We have even seen a (small) investment in a caravan park where cleaning up the environmental damage cost almost the entire proceeds of sale.

In terms of the ongoing strategy, initially a strong focus on minimising the risk of further losses and protecting solvency is required. In an Australian environment with discounted liabilities, this tends to mean matching the assets and liabilities (both by currency and cash flow / duration). To the extent that there is available capital, there may be a need to apply matching principles to assets backing the capital base to protect solvency. For example, a regulatory minimum capital requirement driven predominantly off discounted liabilities may be best protected from erosion by a strategy that matches the liability profile.

Under favourable portfolio experience, a company's tolerance for risk is likely to increase. Accordingly, if a run off is successful, there is then an ongoing challenge to adapt the investment strategy to maintain its suitability.

One of the practical challenges we have sought to address is how to define and maintain appropriate cash flow / duration matching. Pure cash flow matching provides theoretical protection against yield curve changes, both in shape and level. This is impractical (in Australia) at the longer end of the curve due to the shortage of securities, performance benchmarks are hard to construct and there is no simple objective measure of the quality of the match. On the other hand simple duration matching provides only limited protection against changes in the shape of the yield curve. Where we have ended up is by breaking the portfolio into time based cash flow ‘buckets’ (eg. cash flows expected between 3 and 5 years hence would form one bucket) and then imposing duration constraints around each bucket. The buckets and benchmarks are then re-assessed following full liability valuations.

At the other extreme once a run off portfolio is small, different investment issues arise. Often matching will not be appropriate (the liability portfolio is too lumpy and random) or cost effective (required asset parcels would be very small). In such circumstances it may well be that a simple cash mandate (or investment in highly liquid bonds or in a managed cash trust) is required, perhaps with a single counterparty, albeit that additional credit risk may then be introduced. Ironically from a theoretical standpoint, a liability valuation standard requiring discounting at a sovereign risk rate could actually be an aggressive discount, were the asset requirements to be pure cash.

5.6 Capital management

At least in its initial stages, run off encourages a stronger and more timely focus on prudent financial and capital management techniques. Whilst continually evolving, most of the modern capital management techniques have been addressed thoroughly elsewhere in actuarial literature.

Regardless of whether it is a portfolio in an existing company or an entire entity, the nature of run off is such that access to capital will be severely constrained, thus forcing close and careful management of whatever capital is available. At the very least management will be reluctant to commit capital from elsewhere for what they see as a dead duck. In this sense the initial inevitable regulatory pressures to commit some capital can actually assist the run off management team.

The price for having capital is likely to be the need for management to have a strong focus on, and up to the minute understanding of, profit and solvency and, ultimately, to manage the business to return as much capital as possible to stakeholders.

For Australian run off, APRA require a high probability of sufficiency before capital can be released. We understand that in the UK the Financial Services Authority also requires a high probability of sufficiency.

Notwithstanding the regulatory thresholds, assessment of extreme probabilities of sufficiency is necessarily a highly judgemental exercise. As one commentator we have discussed this with puts it – “Even if I had 200 years of data on which to base my model, who knows if it was a good 200 years or a bad 200 years?”

Some brief observations on determination of capital values at extreme probabilities are:

- Whilst extrapolation from risk margin models designed for 75% sufficiency can be a useful starting point, any attempt at a robust assessment of the extreme value requires a rethink of modelling approach,
- Data such as contract or policy limits and maximum probable loss information becomes more relevant and useful,
- At extreme values the potential for events that would be given no credence at lower levels of sufficiency is something that has to be addressed – the potential for future latent claims would be one such area, and
- Lastly, we have what we think may possibly be a new actuarial concept – conceivability. Once the work is complete it is essential to step back and consider whether the extreme scenarios emerging from the modelling are actually possible. Ie. is each extreme scenario actually conceivable, from both within the model framework and in taking a step back?

6 Conclusion

We have highlighted what we see as the importance of the run off sector in Australia, being around a quarter of the overall insurance market. We have sought to provide insight into the sector and its requirements, as well as some more general food for thought. In our view the opportunities and challenges of run off are rewarding, with actuaries able to make an important contribution to the sector.

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