Second insurance industry market pricing review

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Summary

On 27 March 2002 the Australian Competition and Consumer Commission (the Commission) was requested by Senator the Hon. Ian Campbell, Parliamentary Secretary to the Treasurer, to update the Commission's March 2002 *Insurance industry market pricing review*.

This second insurance review, in addition to updating market performance and premium information, also analyses the public liability and professional indemnity insurance sectors and provides an account of the events of 11 September 2001 and the liquidation of the HIH Group have had on the general insurance industry.

Market overview

The performance of the general insurance industry in 2001 was affected by two large and unusual events. The first of these occurred in March 2001, when the HIH Group of companies was placed in liquidation. Based on available information had HIH been included in the 2001 Australian Prudential Regulation Authority (APRA) statistics, the general insurance industry losses in 2001 reported by APRA would have been in excess of $4 billion.

The second event was the terrorist attacks in the United States on 11 September 2001. This event has been estimated to have resulted in insured losses in the range of US$20 billion to US$40 billion.

The collapse of HIH and the terrorist attacks mean that the general insurance industry when considered as a whole performed extremely poorly in the 2001–02 financial year. However, the data obtained by the Commission for the review suggests that the short-term outlook for the general insurance industry is much more positive.

The Commission's analysis of the general insurance market is primarily based on statistics published by APRA and premium, claims data and commentary provided by sixteen general insurance companies. The Commission's view (detailed in section two of the review) is that large and sustained premium increases over the past three years have restored most classes of the general insurance business to profitable levels.

Fire and Industrial Special Risks (ISR), compulsory third party (CTP), commercial motor, domestic motor, marine and aviation, mortgage, consumer credit, and other Accident classes of general insurance are considered to be producing 'high' or 'very high' returns.

In addition, continued premium increases during 2001–02 are expected to significantly improve the profitability of professional indemnity and products and public liability insurance classes.

As a result, the performance outlook for the 2002–03 financial year for insurance companies is positive with premiums for a number of classes at a level expected to produce

High profits—this analysis is based on the Commission's assessment of the current operating environment (including the current legislative environment) for general insurers and does not factor in changes that may alter this environment. The table below summarises the Commission's outlook for the various classes of the general insurance industry.

Performance and outlook

Class of Business	Overall	Recent	Outlook
Fire and Industrial Special Risks	Low	Low	High
Houseowners/Householders	Moderate	High	Moderate
CTP Motor Vehicle	Moderate	High	Very High
Commercial Motor Vehicle	Low	High	High
Domestic Motor Vehicle	Low	High	High
Marine and Aviation	High	High	Very High
Professional Indemnity	Low	Very Low	Low
Product and Public Liability	Very Low	Very Low	Low
Employers' Liability	Very Low	Moderate	Moderate
Mortgage	Very High	Very High	Very High
Consumer Credit	High	Very High	Very High
Travel	Very Low	Very Low	Low
Other Accident	Moderate	High	Moderate
Other	Low	Very Low	Unclear
Inward Treaty	Low	Moderate	Unclear
Overall	Low	Moderate	Moderate/High

Very low indicates that the return on capital invested may be at an unsustainable level suggesting intervention to either increase premiums (perhaps selectively) or exit from the market.

Low indicates that returns on capital are in the range of –5 per cent to +10 per cent. These returns generally do not provide a margin above returns on risk free investments to compensate for the risk involved in insurance.

Moderate indicates returns on capital are being achieved in the range of 10 per cent to 20 per cent. This is significantly higher than the industry has achieved overall over the last eight years.

High and **very high** refers to returns on capital of 20 per cent to 50 per cent and in excess of 50 per cent respectively.

The Commission is aware that two potential negative factors that may adversely impact on insurers' attempts to improve profitability are the possibility of the occurrence of extraordinarily large catastrophic events and continuing poor investment returns. On these fronts insurers have acted to limit exposure to terrorist attacks (no longer covered under normal commercial policy terms and conditions) while the adoption of sound investment strategies should minimise the impacts of movements in investment markets.

The remaining uncertainty for insurers is the adequacy of their provisions. In most cases, insurers are expected to comply with APRA's new prudential standards, which came into effect from 30 June 2002. Any additional capital raised to increase the provisions held by insurers to comply with the new prudential standards, and hence contribute to pressure to increase premiums, should be reflected in the statistics prepared by APRA effective at 30 June 2002.

Premium increases

Premium renewal rate information, provided to the Commission by the selected general insurers, for a number of insurance classes demonstrates the successive years of high premium increases in certain classes of insurance, in particular fire and ISR, professional indemnity and public liability. The table below includes increases for renewal premiums reported in the Commission's March 2002 review.

Renewal premium increases

Class	2001/02 Increase	2000/01 Increase	Current Minimum	Current Maximum
Fire and ISR	29%	20%	12%	178%
Houseowners Householders	6%	3%	3%	13%
CTP Motor Vehicle	3%	0%	2%	6%
Domestic Motor Vehicle	2%	6%	-7%	6%
Marine and Aviation	10%	3%	-3%	65%
Professional Indemnity	24%	27%	12%	61%
Public and Product Liability	22%	15%	10%	42%
Employers' Liability	1%	7%	-4%	13%

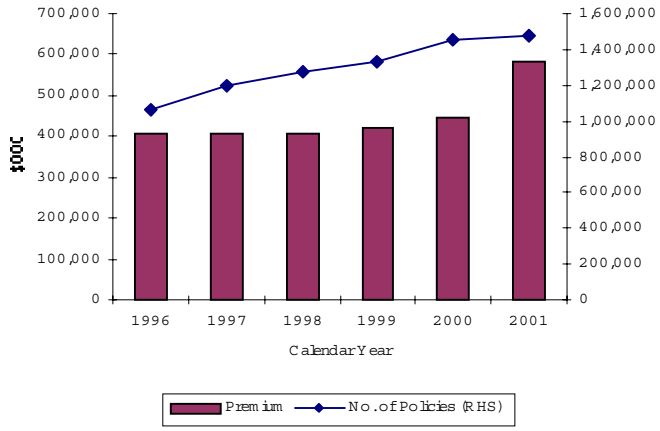
Public liability and professional indemnity insurance

Public liability and professional indemnity insurance is considered in detail in section three of the review. An examination of the historical and current performance of these markets based on data detailing the claims and settlement experience of the sampled general insurers is provided together with a discussion of the various factors that influence premiums and the performance of these classes of insurance. This is then followed by an analysis and commentary on a range of issues significant to the provision of public liability and professional indemnity insurance. The discussion concludes with a brief discussion of measures that have been proposed to address the issues of availability and the cost of public liability and professional indemnity insurance.

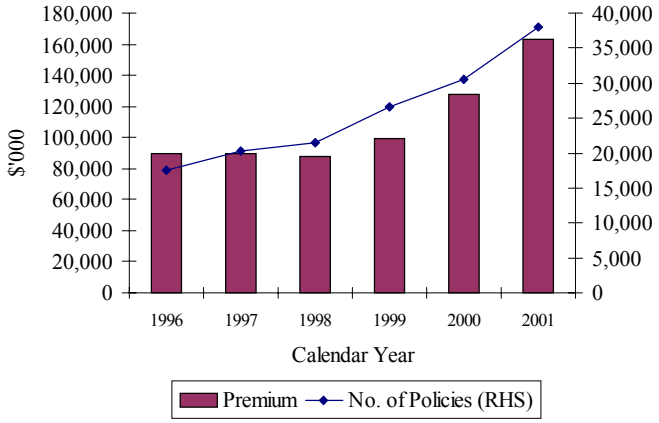
Costs and performance

The sampled insurers provided information on the costs and performance associated with the provision of public liability and professional indemnity insurance to the Commission. The proportion that the selected insurers' written premium bears to these markets, as measured by APRA statistics for the year 2001, was 63 and 54 per cent respectively. The figures below outline the premium and policy count trends for these classes.

Public liability written premium income (indexed) and policy count



Professional indemnity written premium income (indexed) and policy count

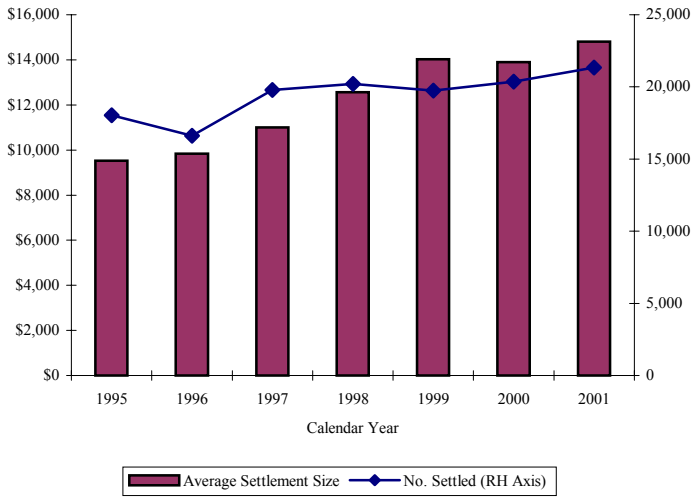


The indexed written premium for the public and product liability class exhibits a similar pattern to the professional indemnity class with relatively flat volume of premium income in real terms to 2000, after which significant increases have occurred.

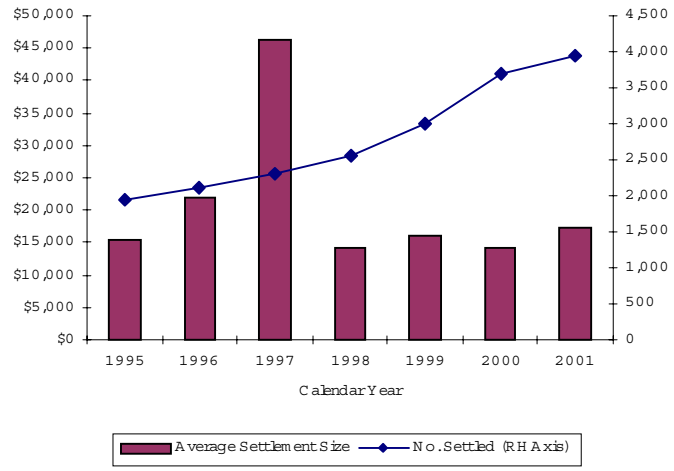
Claims experience

The figures below show the number of settlements and average settlement size derived from the selected insurers. The past settlement amounts have been indexed to current values based on the average weekly earnings (AWE) index.

Settlement experience for public liability



Settlement experience for professional indemnity



With respect to the public liability settlement experience, given that the average settlement size has already been indexed to current values based on the AWE index, there still remains considerable inflation of the settlement amounts over the period, in the order of 8 per cent per annum. Whereas, in professional indemnity the average settlement size observed in the information provided by the sampled insurers demonstrates the volatility of the class, but does not evidence any discernible upward trend in settlement size. However, for both classes the increasing trend in the number of policies issued and the number of claims settled is readily observable.

Comparing the premium trend to the past profitability for these classes the steady increase in the net loss ratio from 1997 to 1999 occurred while premiums were static in real terms and falling on a per policy basis. The positive experience in 2000 for the professional indemnity class and in 2001 for public liability class coincides with the recorded increases in written premiums.

Cost drivers—professional indemnity

In relation to professional indemnity the key factor identified by insurers as impacting on the performance of this class has been the increased frequency of claims as the numbers of policies issued grew significantly throughout the 1990s. Investigation of this phenomenon suggests that a key driver for the issuance of policies was the gradual introduction through the course of the nineties by the public sector of the need for firms to demonstrate adequate cover for both professional indemnity and public liability. At this time there was also significant outsourcing of information technology contracts and a number of large privatisation projects involving utilities that had been the subject of significant compensation claims for negligence.

Cost drivers—public liability

In interviews undertaken with insurers and other industry participants the key drivers for public liability insurance were considered to be:

- **Community—**increased litigiousness of the general public and heightened awareness of common law rights (this is consistent with observations made in respect of increasing costs in other liability classes).

- **Court awards**—increased court awards.

- **Legal**—several observations were made concerning the impact of increased legal activity as a result of:

  - contingency fees

  - touting for business (the link between advertising and growth in claims numbers is less clear although some delay after the time advertising was first allowed, which effectively occurred in the early 1990s, would be expected)

  - attention of law firms (particularly when access to common law was removed from Victorian workers compensation legislation in late 1997)

  - increase in prevalence of representative (class) actions

  - general increase in legal costs

- **Labour market—**traditionally, workplace injuries were compensated through statutory workers compensation benefits (employers liability). During the 1990's outsourcing tended to replace permanent employees with contract labour. This is now considered to be one of the drivers of the increase in the numbers of policies.

- **Insurance market—**decreased capacity (consolidation in the local and international market of direct writers, reinsurers and brokers has caused lack of depth in the market and the ability for stockholders to demand higher returns for the risk carried).

The Commission found that limited information was readily available to sufficiently support or refute these contentions. This was principally a consequence of the type of

information readily available from insurers. From their perspective, as the objective is to charge a premium that provides an adequate return, information collected and held has been to enable them to correctly quantify the underlying claims costs for inclusion in the pricing process. This approach has been at the expense of developing a comprehensive understanding of the cost drivers and tracking how they progress.

Through the course of the Commission's investigations it was suggested that the recent APRA reforms have also contributed to insurers increasing premiums. On the basis of interviews with insurers it appears that the larger insurers' existing capital base already well exceeds the minimum specified in the new prudential standards. For smaller insurers it is expected that where the raising of additional capital is necessary, the servicing of this, with sufficient excess to ensure a reasonable margin is maintained over the minimum, may place pressure on these insurers to increase premiums.

An additional factor reported, that is in part a flow-on affect of the introduction of the new prudential standards, has been a stronger emphasis on internal capital management and allocation to classes by insurers. Effectively, lines of business now need to 'bid' internally for the available capital. Consequently, this will tend to disadvantage those lines with high capital requirements, more volatile results, and/or lower profitability. Typically, these are the liability classes such as public liability and professional indemnity.

Analysis of problems that occur in public liability and professional indemnity insurance markets

There is a range of issues that have the potential to create difficulties in the provision of public liability and professional indemnity insurance. Section 3.5 of the review discusses these issues with a particular focus on how these issues may impact on not-for-profits (NFPs) and small businesses. The problems discussed are:

1. The potential that a combination of **moral hazard** on the part of the insured and the operation of **adverse selection** presents public liability insurers particular difficulties in premium setting and risk management. A more detailed discussion of the operation of moral hazard, adverse selection and the economic theory of insurance and insurance firms is provided in appendix D of the review.
2. The basic nature of both public liability and professional indemnity risks create difficulties for insurers in making adequate provision for insurance claims and otherwise managing risk. Risks may be both **fat-tailed**, in the sense that the probability of very high pay-out events is large relative to the probability of such events in the case of other insured risks, and **long-tailed** in that many years may elapse between the date the incident occurred and the final settlement of the claim.
3. In insurance markets where capacity exceeds demand and competitors have different internal standards for solvency or differing amounts of information **imprudent price cuts** by a subset of competitors may lead to general underbidding by competitors. If sound internal prudential management by each insurer is not exercised this may lead to significant poor performance resulting in tightening of participation and price.
4. An unanticipated loss or increase in expected losses in insurance can instantaneously decrease insurance capacity, and this, coupled with **capital market**

imperfections that prevent rapid renewal of capital from equity markets, means increased liabilities can immediately constrain present and future supply. This in turn can result in increased prices and profits while the market adjusts. While this is true of insurance markets in general, because of the ease of shifting internal funds between different insurance markets, in times of constrained capacity those products most vulnerable to changes in overall risk such as public liability and professional indemnity insurance are likely to suffer the most.

5. Insurance costs are positively related to the ease with which judgements can be obtained, the range of harm's damages can be awarded for and the amount of damages awarded. As a result, it is possible that changes in these areas will have a direct impact on premium increases and the availability of insurance. Some evidence does suggest costs in this respect have increased in recent decades, though the evidence is mixed. Further, the present crisis has happened relatively suddenly reducing the likelihood that its root cause is the past twenty years of **tort law developments**.

Possible ways forward

The review concludes with a discussion of a number of the proposals that have been put forward to correct the current problems with the provision of public liability and professional indemnity insurance and a case study of the provision of compulsory third party motor vehicle insurance (a long tail-liability class). The measures discussed are:

1. **Tort reform** has been proposed in the context of both public liability and professional indemnity. The proposals generally take one of the following forms:
    - i) measures to reduce the avenues for compensation available through civil litigation—these measures shift the costs of accidents toward the victim or taxpayers
    - ii) legislation allowing for self-assumption of risk by consumers of specific services
    - iii) establishment of statutory compensation schemes to replace common law claims of negligence
    - iv) measures to replace joint and several liability with proportionate liability.
2. The introduction and improvement of **risk management strategies** together with enhanced **data collection measures** can reduce the potential for moral hazard and adverse selection to assist the setting of appropriate rates and claims reserves setting to support both public liability and professional indemnity underwriting.
3. The aggregating or pooling of buyers and/or sellers offers an opportunity to address in part the inherent problem of moral hazard and offers the prospect of sufficient economies to lower transaction costs. The **aggregation solution** is closely related to and supplements the 'risk management' solution.
4. The introduction of **regulated prices** to support certain entities such as not-for-profits (NFPs) in recognition of the wider social benefits that these activities provide has to be considered in the context that insurance markets, like other capital markets, often equilibrate through both portfolio and price adjustments. That is,

even if regulators could control price they would not control the quantity of insurance supplied.

Conclusions

The review concludes that the outlook for the Australian general insurance industry for the 2002–03 financial year is positive despite the effects of 11 September 2001, the collapse of HIH and successive years of significant underwriting losses in the 1990s. Large and sustained premium increases over the past three years have restored most classes of insurance business to profitable levels. In addition, continued premium increases during 2001–02 are expected to turn around the profitability of professional indemnity, and products and public liability.

In relation to constructive measures that can be implemented to address the current high prices and limited availability of public liability and professional indemnity insurance, the Commission, in the light of the lack of empirical data at present on the so-called 'litigation explosion' and associated claims, and due to the complexity of the various factors that influence long-tail liability insurance markets recommends that caution should be exercised in implementing significant policy and other changes to address the situation.

Future reporting role

The Commission has also been requested by Senator the Hon. Ian Campbell to maintain an informal price monitoring role in relation to particular aspects of the insurance market. The Commission will monitor costs and premiums in the public liability and professional indemnity sectors of the insurance market on a six-monthly basis over the next two years, and with the intention of providing its first such report in early 2003. Within that context, the Commission was asked to give consideration to the impact on insurance premiums resulting from measures taken by governments to reduce and contain legal and claims costs and to improve the data available to insurers to evaluate and price risk. To the extent possible, the Commission's future monitoring reports will assess the impact on premiums made by these measures. Senator Campbell's request indicated that the Commission would not be expected to form a view as to the adequacy or appropriateness of these measures, as this is a matter for state and territory governments.

1. Introduction

On 27 March 2002 Senator the Hon. Ian Campbell, Parliamentary Secretary to the Treasurer, requested the Commission to update its first *Insurance industry market pricing review* that was released in March 2002.

This second review outlines the structure of the Australian general insurance industry, provides an assessment of its recent performance based on a number of broad indicators and summarises recent premium increases in various classes of insurance based on information provided to the Commission from a number of institutions. The report also considers the impacts that the collapse of the HIH Group (March 2001) and the 11 September 2001 terrorist attacks in the United States have had on the domestic and international general insurance industry.

This review also considers in detail the performance and the recent experience of the public liability and professional indemnity sectors of the general insurance market. The review includes a discussion of the fundamental issues at play in the provision of public liability and professional indemnity insurance and considers proposed solutions to problems associated with both the availability and cost of these services.

Currently the Commission does not have general powers of price monitoring or control[1], nor does it have preconceptions of whether prices may be 'too high' or 'too low' for insurance or products generally. Prices for products other than the regulated utilities are generally of concern only in circumstances where they may indicate restrictive practices such as misuse of market power (e.g. predatory pricing), price fixing or resale price maintenance.

This review has been prepared with the actuarial assistance of Mr Clive Amery of Taylor Fry Consulting Pty Ltd, and the Network Economics Consulting Group Pty Ltd has assisted with the economic analysis.

1.1 Review structure

This review is composed of two parts. The first part updates on the structure of the insurance industry and the performance of the industry at both the aggregate level and for each class of business specified by the Australian Prudential Regulation Authority (APRA). It also examines recent premium increases for a number of these APRA classes.

The second part of the review considers the recent experience of the professional indemnity and public liability classes of insurance. It describes the current state of these markets, discusses the various factors that influence premiums and the performance of these classes of insurance and concludes with a consideration of various solutions that

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[1] The *Prices Surveillance Act 1983* enables the Commission, where the government declares products or services, to formally monitor prices with the objectives of promoting competitive pricing wherever possible and restraining price rises in markets where competition is less than effective.

have been proposed to address the issues of availability and the cost of 'long-tail' types of insurance.

It should be noted that the Commission's first review contains an extensive account of the insurance market and provides much of the background material for many of the issues and the concepts examined in this report.

1.2 Information sources

A broad range of material was drawn on to support the observations made in this review. Primary sources of data were:

- Selected insurance statistics published by APRA for the years ending 31 December (1997 to 2001).
- Returns provided by 16 insurance companies in response to requests from the Commission.[2]
- Submissions to the Senate Economic References Committee's inquiry into the impact of public liability and professional indemnity insurance cost increases.

Due to the commercially sensitive nature of some of the information supplied, individual company returns were provided on a confidential basis and are not available for publication. A list of the insurers sampled is provided in appendix E.

A considerable volume of other material was also reviewed to develop and evaluate theories on the likely causes of price increases and the operation of general insurance markets. All sources are identified in the report.

1.3 Limitations

This review has been prepared from the most up to date information available, that is, APRA data to 31 December 2001 and information from insurers up to 30 June 2002. Where possible more recent information has been referenced.

Taylor Fry and the Commission have relied on statistics published by APRA in analysing the profitability of the insurance industry. The results and conclusions drawn from the analysis could be flawed if the information supplied by APRA (or to APRA by the insurers) is incorrect or incomplete.

1.4 Qualifications

Companies do not operate in a uniform manner: each company has its own profit targets, capital structure, distribution channels, policy terms and conditions, target

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[2] The information was requested and provided to the Commission on a voluntary basis.

markets and objectives. Apart from the fact that information is provided by companies at differing balance dates, aggregation of statistics may not provide an accurate picture due to differing interpretations of the governing legislation and regulations.

The analysis and commentary is based on the Commission's understanding of these aggregated statistics. However, other interpretations may have been possible, particularly if knowledge of specific company circumstances were available.

2. The Australian general insurance market

This section sets out a structural analysis of the general insurance industry and is then followed by a summary of the industry's performance, cost drivers and recent premium increases.

2.1 Structure of the Australian market

There were 156 private sector insurers in Australia authorised to supply general insurance under the *Insurance Act 1974* (Insurance Act) as of December 2001. Of these, 101 were direct underwriters, 15 were mortgage insurers, six were captive insurers, 30 were reinsurers and there were four s. 37 exempt insurers.[3]

The market is comprised of Australian-based insurers (for example, IAG and Suncorp–Metway) as well as many international insurers. Total assets (both inside and outside Australia) of private sector insurers (during the year ending 31 December 2001) were $62.1 billion, while net premium revenue (both inside and outside Australia) totalled $14.1 billion, down $167 million (or 1.2 per cent) on the previous year.[4]

Entry into the industry requires entities to:

- gain knowledge of their targeted market segments
- enter at a level sufficient to claim the necessary economies of scale
- attract necessary capital
- establish distribution channels
- obtain staff with the skills to write for the business.

An indicator of the types of risks that would be borne by a typical insurer is provided by APRA's prudential standards, which specify the minimum capital requirement for insurers. Allowance for the following three types of risk is necessary:

- insurance risk—the possibility that the actual value of premiums collected may be lower and claims liabilities will be greater than expected

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3 Section 37 insurers specialise in writing business for associations, e.g. the NSW Bar Association. A considerable number of these insurers are members of insurance or banking groups; the number of corporate groups with general insurance companies is around 100. Thirty-five insurers are no longer actively writing new business and are in run-off.

4 APRA figures are adjusted for the exit of the HIH Group of companies. Adjusted figures are detailed in section 2.2.2.

- investment risk—the risk of adverse movements in the value of the insurer's assets and/or off-balance sheet exposures

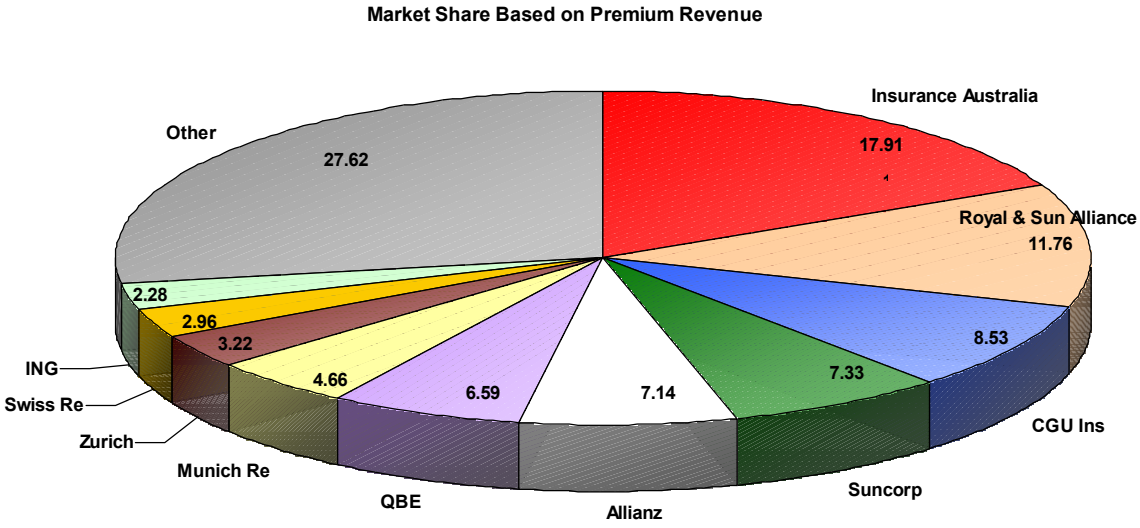
- concentration risk—representing the largest loss to which an insurer is exposed.

One feature of the Australian market is the recent entry of affiliates of leading overseas insurance companies. Such companies now comprise about half of all general insurance companies operating in Australia. In turn, some local companies have established themselves in overseas markets.

The major sales avenues for insurance are through insurance companies' own outlets or through intermediaries, namely agents and brokers. Brokers carry on the business of arranging contracts of insurance as an agent for policyholders and intending policyholders while agents sell insurance on behalf of one or more insurers.

Figure 2.1 below sets out the top ten general insurers and their respective market shares.

Figure 2.1

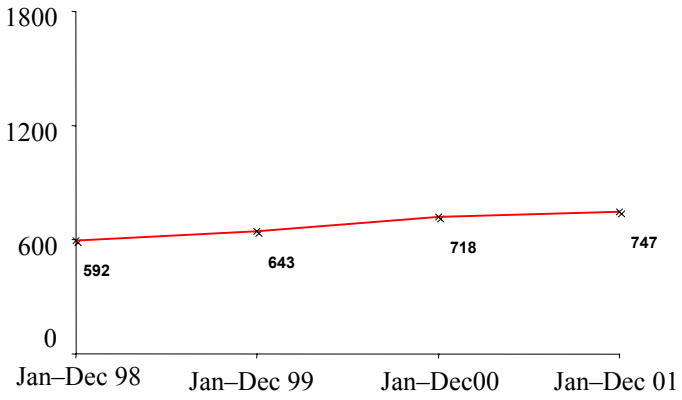


Source: APRA, 'Selected statistics on the general insurance industry' for year ended December 2001. Percentages have been rounded up to two decimal places.

Appendix A provides an overview of the products offered by some of the top general insurers excluding reinsurers.

Figure 2.2 provides an overview of the market concentration of the Australian insurance industry based on the Herfindahl-Hirschman index (HHI). The higher the figure, the more concentrated the market. Under 1992 US Department of Justice guidelines, a market is regarded as concentrated, thereby raising questions as to how effective competition in that market might be, if it has an HHI of greater than 1800. The table shows that there has been an increase in industry concentration since 1997 even though the current figure still indicates a substantial degree of competition.

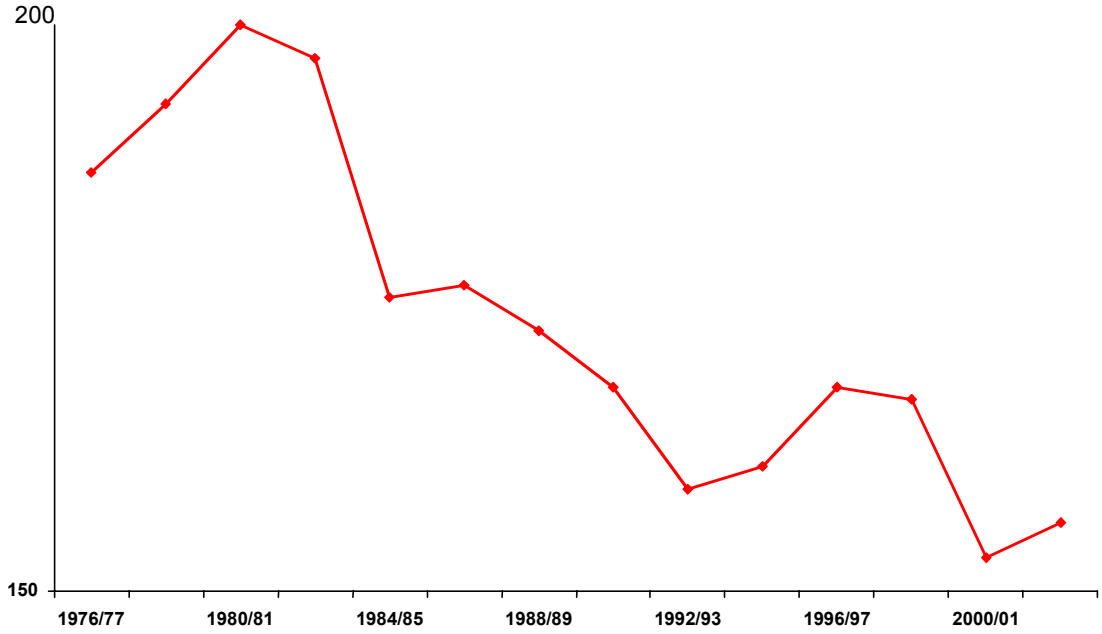
Figure 2.2 HHI Australian general insurance industry



Source: APRA statistics on the general insurance industry. The HHI was calculated using premium revenue as the measure of market volume and market share. Market shares for top 20 insurers were used and it was assumed that the remaining companies had the remaining market share divided equally among themselves. This provides for an optimistic assumption of actual concentration levels. These HHI levels also represent a minimum concentration level because the number of active insurers is considerably less than the number of authorised insurers (see footnote 3).

Figure 2.3 charts the steadily decreasing number of insurers in the Australian market since 1976.

Figure 2.3 Number of insurers in Australia



Source: Appendix A of 'Reductions in APRA's insurance capital requirements?', Richard Cumptson.

In addition to licensed insurers, the Insurance Act excludes or exempts a range of entities which provide insurance from the application of the Act, and APRA supervision. Exclusions include:

- insurance business undertaken by state and Commonwealth governments
- business undertaken by any body not being a company, established under a law of the Commonwealth or state which is required by the law of the Commonwealth or state to provide insurance services.

In addition, there are several organisations which are unsupervised by APRA, but which provide general insurance-like services, such as pooled insurance schemes. Such schemes offer cover to its contributors via a self-insured retention pool funded by collectively levying members (mutual fund) and/or by negotiating insurance underwritten by authorised insurance companies. The liability of these schemes is usually restricted to the amount of contributions paid into the pool by contributors (members) and may be discretionary in so far as the scheme may refuse to pay a claim or any portion of a claim that is not funded by contributions. These schemes appear to be growing in popularity, particularly for public liability insurance coverage.

Examples of groups of institutions not covered by APRA supervision include the medical defence organisations (MDOs) established by doctors (e.g. UMP) and so-

called ‘mutual insurers’ established by local governments (and statutory authorities) in various states. Most local councils across Australia participate in these organisations which are established in their state—e.g. Statewide Mutual and Westpool in NSW, Civic Plus covering Victoria and Tasmania, and the Queensland Local Government Mutual Liability Pool. Some of these organisations are mandated by relevant state legislation and are exempt from APRA supervision on these grounds.

Mutual assistance or aid organisations have also been established covering lawyers, private bus companies, clubs and universities (e.g. Australian and New Zealand Universities Protection and Indemnity Foundation [Unimutual]). A major insurance broker in Australia, Jardine Lloyd Thompson (JLT), actively markets a mutual assistance/co-operative structure to entities wishing to establish mutual assistance type organisations.

The Law Society of WA has established a mutual fund (Law Cover) which provides protection for members by way of a (self-insured) retention of funds (as in mutual aid schemes) with the rest of the risk being underwritten by authorised insurers. The scheme collects premiums, manages claims and manages the mutual fund but is arguably not an ‘insurer’ under the Insurance Act.

Foreign unauthorised insurers have also increased their marketing of services in Australia and have attracted increasing levels of business following the collapse of the HIH group of companies and the withdrawal of low price insurance for some high risk insurance lines (e.g. public liability and special industrial risks).

Furthermore, some unauthorised foreign insurers have set up administration companies in Australia which write general insurance business through preferred brokers registered with ASIC. Such activities are permitted by the Insurance Act provided any decision by an unregulated foreign insurer to enter into an insurance contract with an Australian insurer is made overseas and not in Australia.

2.2 Market update

This section of the review examines the overall financial performance of the general insurance industry as well as the profitability by class of business.

Each measure of performance is calculated in the same manner as in the March 2002 review. Aggregate industry performance figures exclude the HIH Group to illustrate the performance of the remaining viable underwriters. This adjustment was not made in analysis of each class of business, as figures are not expected to alter materially.

2.2.1 2001 market overview

The performance of the insurance industry in 2001 was affected by two large and unusual events.

The first of these occurred in March 2001, when the HIH Group of companies was placed in liquidation. The cause of the failure is currently the subject of the HIH Royal Commission, which is due to report on 28 February 2003. The extent of losses sustained by the HIH Group will not be known for many years.

Based on available information had HIH been included in the 2001 APRA statistics, APRA would have reported losses in 2001 in excess of $4 billion. Inclusion of these losses in the calculation of the insurance industry's performance reduces the return on equity in 2001 to -30 per cent from 5.5 per cent (refer to section 2.2.5). A more detailed discussion of the influence that the collapse of the HIH Group has had on the insurance industry is provided at appendix C.

The second event was the terrorist attacks in the United States on 11 September 2001. This event has resulted in insured losses in the range of US$20 billion to US$40 billion. The range in part reflects the uncertainty on payments arising from liability insurance. Some of the losses incurred by Australian insurers as a consequence of these events have already been incorporated into the latest APRA statistics (to the extent that companies reporting after 11 September were able to assess their exposure and reliably estimate their loss in balance sheet provisions).

However, many companies have a balance date before 11 September 2001. Therefore the impact of 11 September for each company will not be reflected in APRA's statistics until figures for the year ending 30 June 2002 are released. Even then the actual extent of losses to the industry may not be fully recognised for several years.

The collapse of HIH and the terrorist attacks mean that the insurance industry, when considered as a whole, performed extremely poorly in 2001. Although not reflected in APRA statistics, the insurance industry has experienced the highest underwriting losses ever recorded within Australia (due to the recognition of losses—not necessarily incurred this year) and worldwide (11 September 2001).

Although the insurance industry for the 2001–02 financial year has performed poorly, the short-term outlook for the industry is positive. Large and sustained premium increases over the past three years have restored most classes of insurance business to profitable levels.

Fire and industrial special risks (ISR), compulsory third party (CTP), commercial motor, domestic motor, marine and aviation, mortgage, consumer credit, and other accident are considered to be producing 'high' or 'very high' returns. This has coincided with a period of reduced claim frequency and cost.

In addition, continued premium increases during 2001–02 are expected to further improve the profitability of fire and industrial special risks and to significantly turn around the profitability of professional indemnity, and products and public liability.

As a result, the performance outlook for the 2002–03 financial year for insurance companies is positive with premiums for all classes at a level expected to produce high profits.

Two potential negative factors that may adversely impact on insurers' attempts to improve profitability is the possibility of the occurrence of extraordinarily large catastrophic events and continuing poor investment returns. On these fronts insurers have acted to limit exposure to terrorist attacks (no longer covered under normal policy terms and conditions) while the adoption of sound investment strategies should minimise the impacts of movements in the investment markets.

The remaining uncertainty for insurers is the adequacy of their provisions. In most cases, insurers are expected to comply with APRA's new prudential standards that came into effect from 30 June 2002. Any increase in provisions required to comply with the new prudential standards should be reflected in the statistics prepared by APRA effective at 30 June 2002.

2.2.2 Size of industry (measured by premiums)

Year on year changes in gross written premium illustrates growth of the insurance industry. For the year to 31 December 2001 gross private sector written premium in Australia by direct insurers totalled $18.7 billion (a 9 per cent increase from $17.2 billion reported at 31 December 2000).[5]

Over the past three years written premium has increased from $13.5 billion to $18.7 billion. This represents an annualised increase of 11 per cent per annum.

Growth in premiums, excluding the HIH Group of companies, is illustrated in figure 2.4. Some of the growth reported in 2001 will be due to the reissuing of cover previously underwritten by the HIH Group after it ceased writing business in March 2001 as well as earlier leakage as doubts on HIH's security began to emerge.

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[5] Figures are based on published APRA statistics of written premium for each insurer's financial year ended in the 2001 calendar year—not necessarily 31 December—adjusted to remove the HIH Group for previous years.

Figure 2.4 Industry premiums—direct insurers (ex-HIH Group)

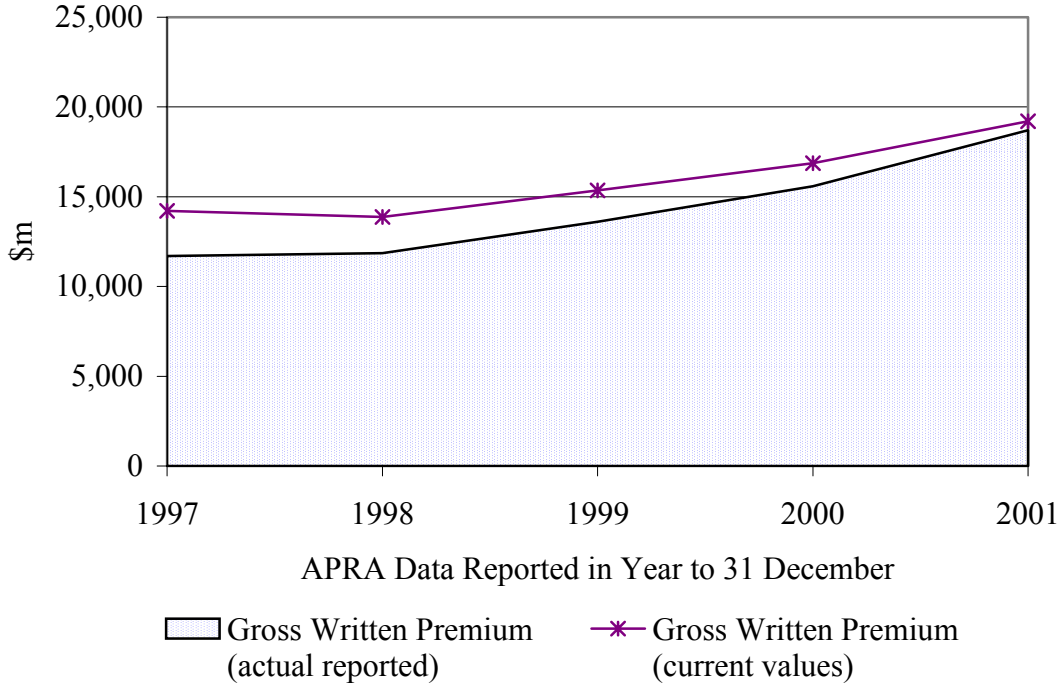

Figure 2.4 also illustrates premium increases adjusted for inflation.[6] After allowing for inflation, premiums have increased in real terms during the past three years for current insurance companies by 16 per cent per annum.

2.2.3 Average premiums

Figure 2.5 illustrates average premiums per policy written for all insurers excluding the HIH Group. HIH is excluded to illustrate the experience of current insurers. The average premium is a crude statistic as it is easily distorted by changes in the mix of business and changes in the covers provided. However, it does serve to illustrate the general reduction in premium dollars for risk exposures that was experienced through to 1999 and the more recent increase in premium rates both in 2000 and 2001.

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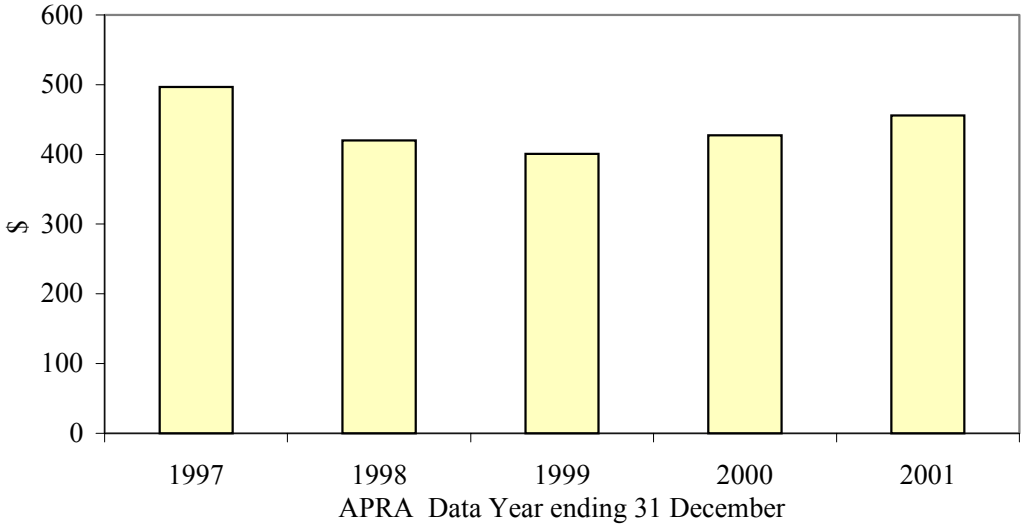
6 Indexed according to Average Weekly Ordinary-Time Earnings to December 2001.

Figure 2.5 Average premiums (2001 values)



Average premiums reduced from $497 per policy in 1997 to $401 per policy in 1999. Premium rate increases in 2000 and 2001 reversed the downward trend and resulted in an average premium per policy in 2001 of $456, which is still lower than the 1997 average in real terms.

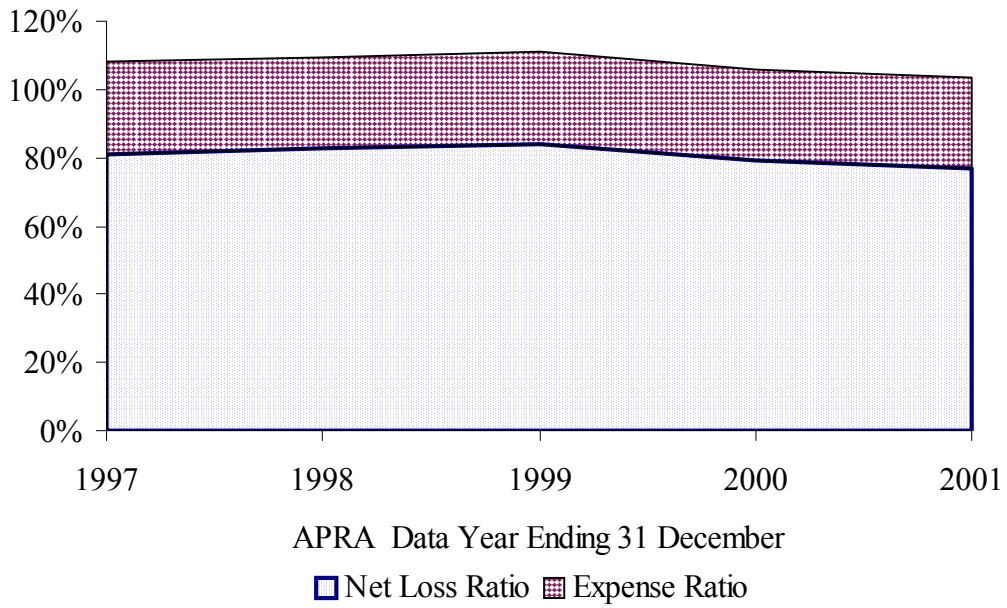
Reported premium increases in the fire and ISR, professional indemnity and public liability classes (refer to sections 2.7.1, 2.7.6 and 2.7.7) will further increase the average premium in 2002, although these are unlikely to increase the average back to the 1997 level.

2.2.4 Loss and expense ratios

Net loss ratios are calculated as the claims expense for the year (net of reinsurance recoveries) divided by net earned premium. This statistic measures that proportion of premiums allocated to meet the cost of claims. Target loss ratios vary according to the class of business but are generally expected to range from 50 per cent to 80 per cent.

Net loss ratios, excluding the HIH Group, increased slightly from 80 per cent in 1997 to 84 per cent in 1999. Following increases in premiums the loss ratio has fallen to below 77 per cent in 2001. As indicated in the March 2002 review, a typical industry target loss ratio would be 75 per cent or less.

Figure 2.6 Loss and combined ratios



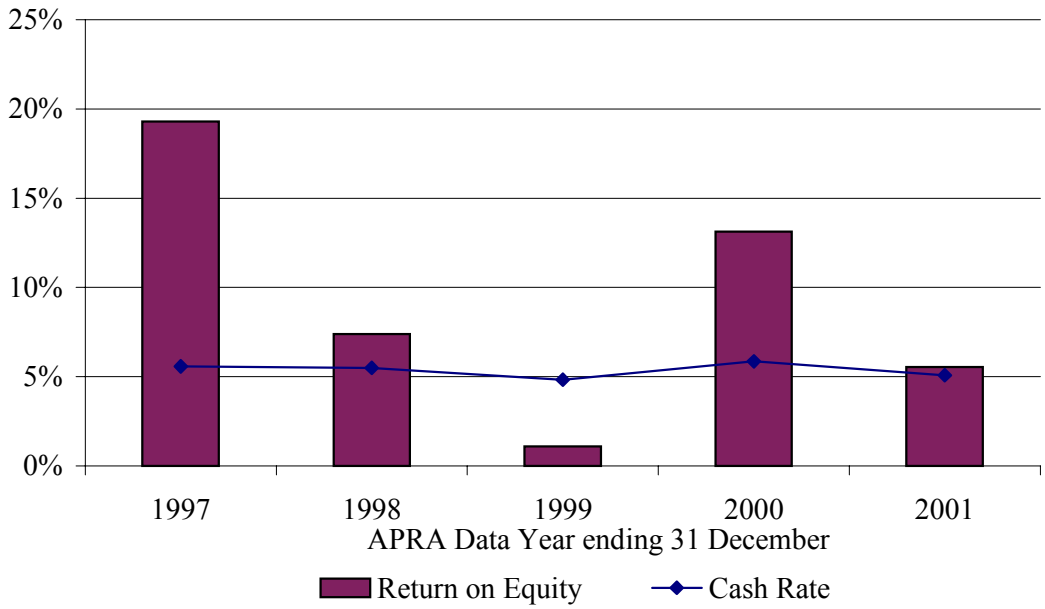
The diamond pattern segment of figure 2.6 illustrates the expense ratio, which is added to the loss ratio to produce the combined ratio. The expense ratio has remained quite stable at 27 per cent of net earned premium. Improvements in the expense ratio reported in the March 2002 review occurred before 1997. Further improvements were expected with increasing premium rates. However, it appears that insurer expenses are increasing at the same rate as premiums.

The combined ratio (the sum of the loss ratio and the expense ratio) compares total costs with premium. A combined ratio in excess of 100 per cent can still provide a reasonable return to insurers as this measure does not include the contribution to profit from investment income. In the period shown, the combined ratio has reduced marginally from 108 per cent in 1997 to 104 per cent in 2001 after increasing to a high of 111 per cent in 1999.

2.2.5 Financial performance (return on equity)

Figure 2.7 illustrates the average return on equity for the industry. Return on equity (insurance profit divided by shareholder capital) for the insurance industry, excluding the HIH Group, for 2001 was 5.5 per cent. This compares with overnight cash rates that averaged 5.1 per cent. The return on equity would be significantly lower if figures for the HIH Group were included.

Figure 2.7 Return on equity (ex-HIH Group)



In the March 2002 review it was noted that the industry had averaged around 7 per cent per annum since 1993[7] down from approximately 13 per cent per annum in the 1980s. The results incorporating insurer returns to APRA in the six months to 31 December 2001 show a similar picture.

The relatively high returns on equity shown in figure 2.7 for 1997 and 2000 are primarily the result of high investment profits. These higher profits from investments are shown in figure 2.8. The contributions of each of the main components of profit, which generate the return on equity, are illustrated below in figure 2.8. Investment income and underwriting profit are before tax. Insurance profit is after tax.

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[7] ACCC *Insurance industry market pricing review* report, March 2002, p. 22.

Figure 2.8 Components of profit (ex-HIH Group)

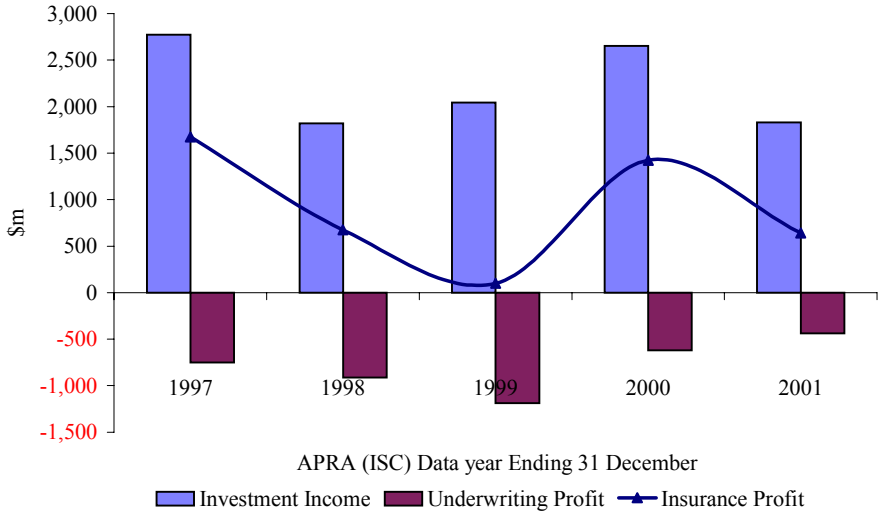


Figure 2.8 also shows that premium increases since 1999 successfully reversed the trend of increasing underwriting losses to a position where the underwriting loss in 2001 of $436 million is back at a level last experienced in 1993. The main source of reduced earnings for insurance companies now appears to be poor investment returns.

It should be noted that this chart masks the actual losses incurred across the insurance industry. The collapse of HIH has resulted in the largest underwriting loss in Australia's history.

2.3 Profitability of individual classes

The contribution to overall profit by each class of insurance business was examined in the March 2002 review. That analysis is updated in the sections below. As in the previous report profitability is measured by return on capital and is classified as:

- Very low (less than -5 per cent)
- Low (-5 per cent to 10 per cent)
- Moderate (10 per cent to 20 per cent)
- High (20 per cent to 50 per cent)
- Very high (over 50 per cent).

These definitions are somewhat arbitrary but have been designed to illustrate rates of return that shareholders may expect.

Return on capital is calculated as profit attributed to the class divided by capital allocated to the class. The capital allocation undertaken has been based on APRA's new prudential standards concerning minimum capital requirements. As the allocation is based on APRA's minimum capital requirements the sum of the amounts allocated will not equal the total industry capital available as the industry holds capital in excess of the minimum.

It should be noted that although the figures in this report and the March 2002 report both show years to 2001, the years are not directly comparable. For example, the difference for the 2000 year is as follows:

- the March 2002 review relates to all insurers that had a balance date from 1 July 1999 to 30 June 2000 while

- this review relates to all insurers that had a balance date from 1 January 2000 to 31 December 2000.

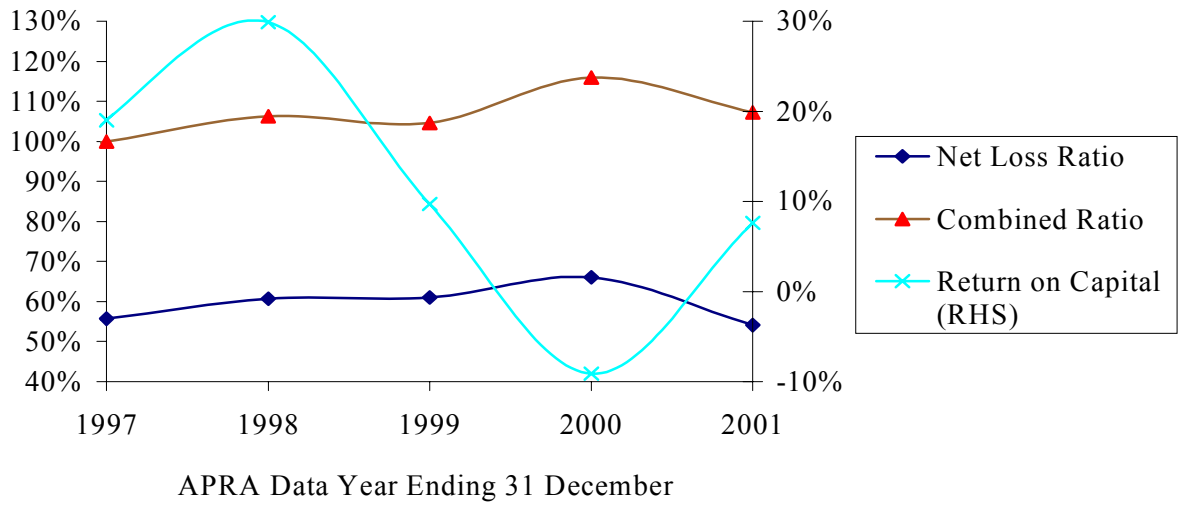
There may therefore be changes in the figures due to insurers data falling out of one year and going into another for the years up to and including 2000. For the 2001 year this report also includes data from balance on 31 December 2001, whereas the previous report included data to 30 June 2001 only. Further it should be noted that the return on capital estimations have been derived from a model developed by Taylor Fry Consulting Actuaries Pty Ltd.

2.3.1 Fire and industrial special risks (ISR)

The fire and ISR class is relatively large representing 9 per cent of total gross written premium and 5 per cent of policies written. Fire and ISR had been profitable through to 1997–98 with a relatively low loss ratio and a combined ratio under 100 per cent until that time.

Return on capital shows this class had quite 'high' returns before experiencing 'low' returns in 2000 and 2001. Although loss ratios have fallen back to 54 per cent the expense ratio for this class has increased offsetting much of the gains, which are primarily attributed to the higher cost of reinsurance.

Figure 2.9 Profitability of fire and ISR



In the March 2002 review the return on equity was relatively flat at around 0 per cent. The updated figures indicate that profitability has improved following the 2001 premium increases.

2.3.2 Houseowners/householders

The Houseowners/householders class is one of the largest representing 13 per cent of total gross written premium and 26 per cent of policies written. The net loss ratio for 2001 increased to 64 per cent after falling from 67 per cent in 1999 to 54 per cent in 2000.

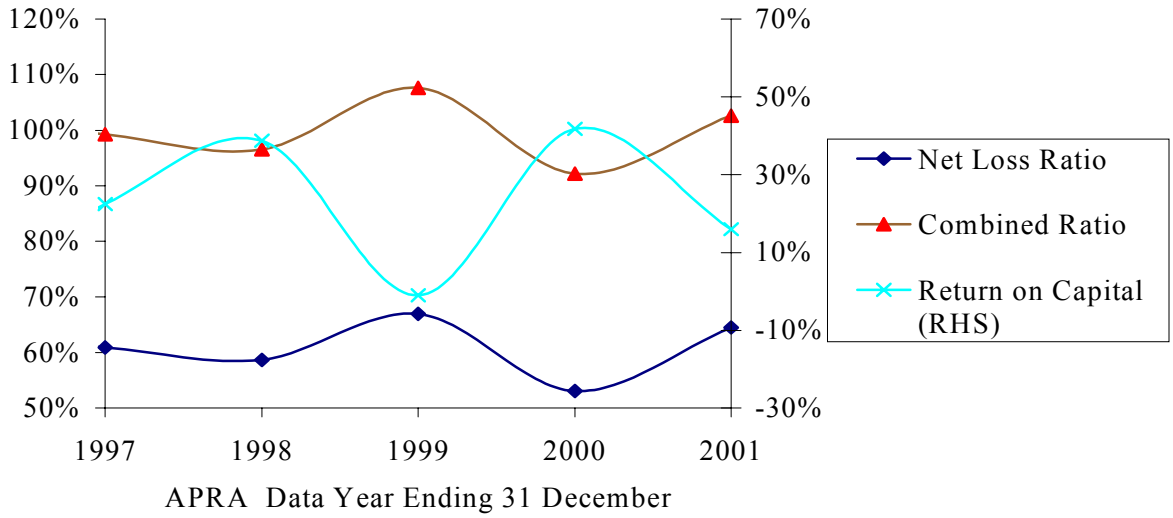
No significant catastrophes for this class were recorded in 2001 with the reported claims expense remaining around $1.3 billion. Rather than an increase in the cost of claims, the large increase in the loss ratio reflects the reduction in premium net of reinsurance for this class.

Gross premiums reduced by $119 million or 5 per cent from $2.359 billion in 2000 to $2.240 billion in 2001. This reduction was primarily due to the exclusion of HIH Group premiums in APRA's 2001 statistics.

In contrast to the reduction in gross premiums, reinsurance premiums actually increased in the same period by $174 million or 32 per cent from $553 million to $728 million. This represents a jump in reinsurance premiums from 23 per cent of gross premium in 2000 to 32 per cent in 2001.

The combined effect of the reduction in gross premiums and increase in reinsurance premiums was to increase the loss ratio by almost 20 per cent.

Figure 2.10 Profitability of houseowners/householders



As suggested in the March 2002 review direct writers appear to have absorbed the higher cost of reinsurance in 2001. Although the return on capital is still considered Moderate continuing increases in reinsurance premiums may result in insurers increasing premiums or re-rating their portfolios along similar lines to that undertaken for domestic motor in recent years.

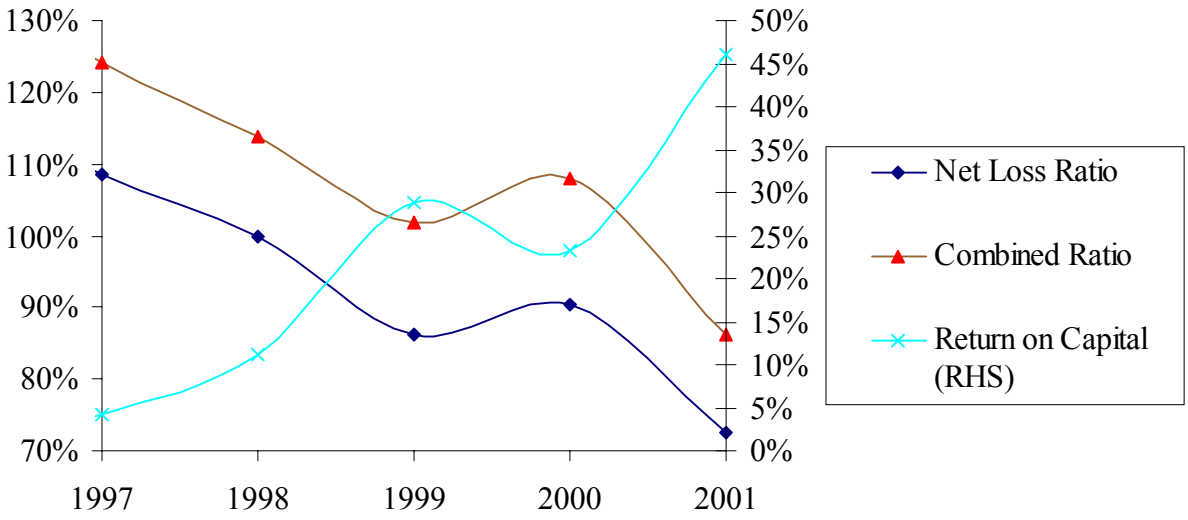
2.3.3 Compulsory third party (CTP)

Compulsory Third Party is another of the large classes (this is only the Queensland, New South Wales and Australian Capital Territory markets), representing 12 per cent of total gross written premium and 14 per cent of policies written. Profitability of this class continues to improve with the current return on capital at 46 per cent up from 31 per cent reported in the March 2002 review.

In 2001 this class recorded a large underwriting profit of $220 million. This is unusual for a long-tail class in which underwriting losses have been common. Even if insurers incur small underwriting losses, long-tail classes can still be profitable if the investment income on the technical reserves is sufficient to offset the underwriting loss.

Legislative amendments introduced in 1999 in New South Wales, targeted at curbing access to compensation, appears to have contributed to the reduction in the cost of claims. As a result this business is currently experiencing historically high returns on capital. Insurers indicated that part of the profit in 2001 is due to the release of excess reserves held in respect of accidents relating to the early and mid-1990s.

Figure 2.11 Profitability of compulsory third party



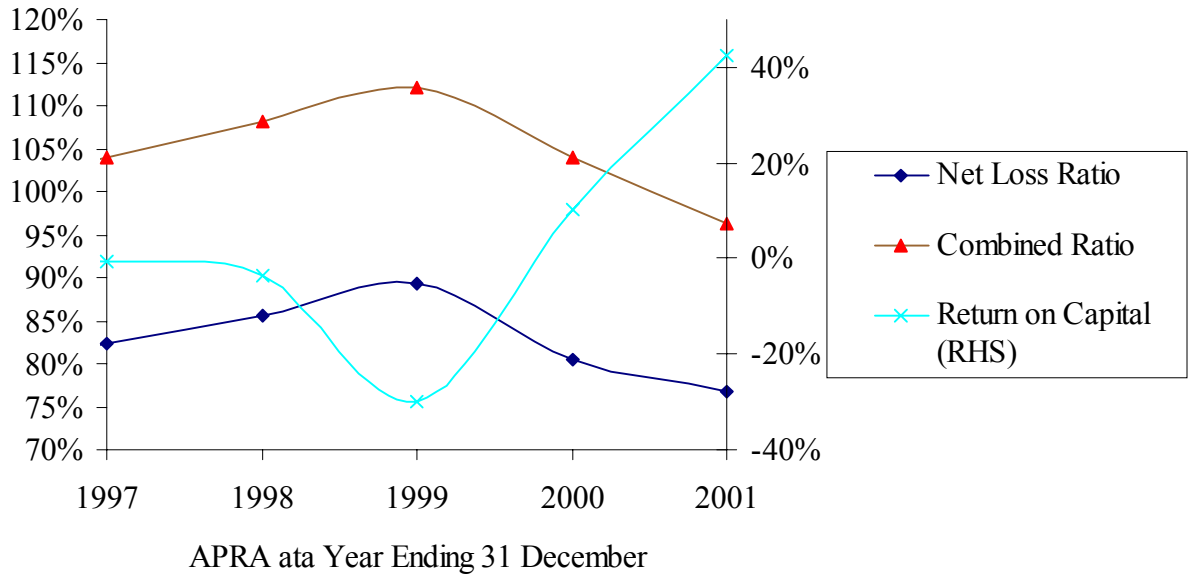
APRA Data Year Ending 31 December

CTP insurance in New South Wales is described in more detail in a case study in section 3.6.2 and provides some insight into the nature of the long-tail liability insurance.

2.3.4 Commercial motor

The commercial motor category is a moderately sized class representing 6 per cent of total gross written premium but only 2 per cent of policies written. The loss ratio has continued to decrease and is now 77 per cent. The profitability of this class has been 'high' for two years; reporting an underwriting profit of $30 million in 2001.

Figure 2.12 Profitability of commercial motor



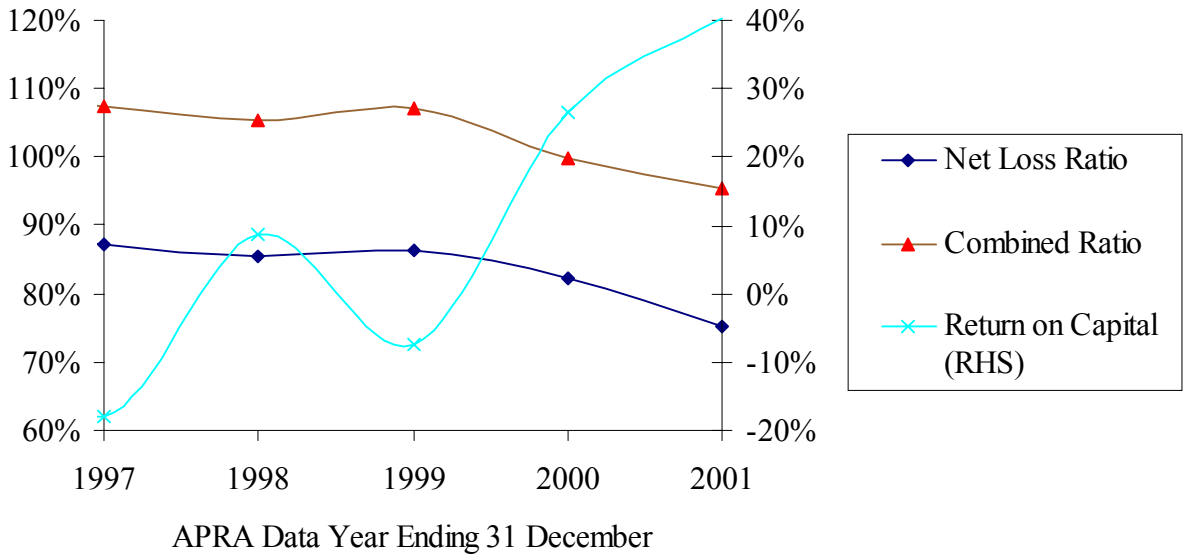
The low claims ratios and high return on equity seen in the March 2002 report for the 2000 year now are smoothed over 2000 and 2001.

2.3.5 Domestic motor

The domestic motor class is the largest of the APRA classes representing 20 per cent of total gross written premium and 22 per cent of policies written.

The return on capital for domestic motor vehicle is highly geared to the loss ratio (rather than investment income). This is typical of short-tail classes, which hold a significantly lower level of provisions for the outstanding claims liability than long-tail classes such as professional indemnity and public liability and so, insurers have reduced opportunity to derive a significant level of profit from investments.

Figure 2.13 Profitability of domestic motor



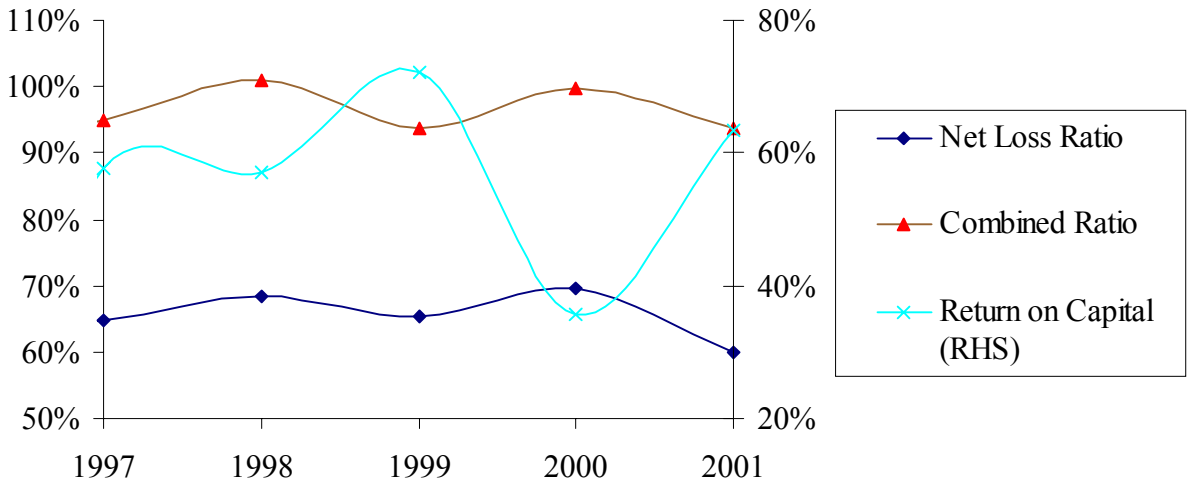
The net premium for this class was reduced by $500m from $2.4 billion in 2000 to $1.9 billion in 2001 primarily due to an increase in reinsurance premiums of the same amount. Reinsurance premiums represent 43 per cent of gross premium revenue in 2001 compared to 30 per cent for 2000. However, the net claims expense decreased by a greater amount in the same period ($600 million). The result was a continuation of the recent reduction in the loss ratio.

As observed in the March 2002 review several major underwriters of domestic motor business reviewed their rating and pricing structure during 2000 and 2001. The effect of that review on the profitability of this class is clearly visible in figure 2.13. The return on capital for this class has been 'high' for two years with a reported underwriting profit of $88 million in 2001.

2.3.6 Marine and aviation

The marine and aviation class is relatively small representing 2 per cent of total gross written premium and 1 per cent of policies written. Figure 2.14 illustrates that marine and aviation continues to achieve 'very high' to 'high' returns on capital. In 2001 the reported underwriting profit was $17 million.

Figure 2.14 Profitability of marine and aviation



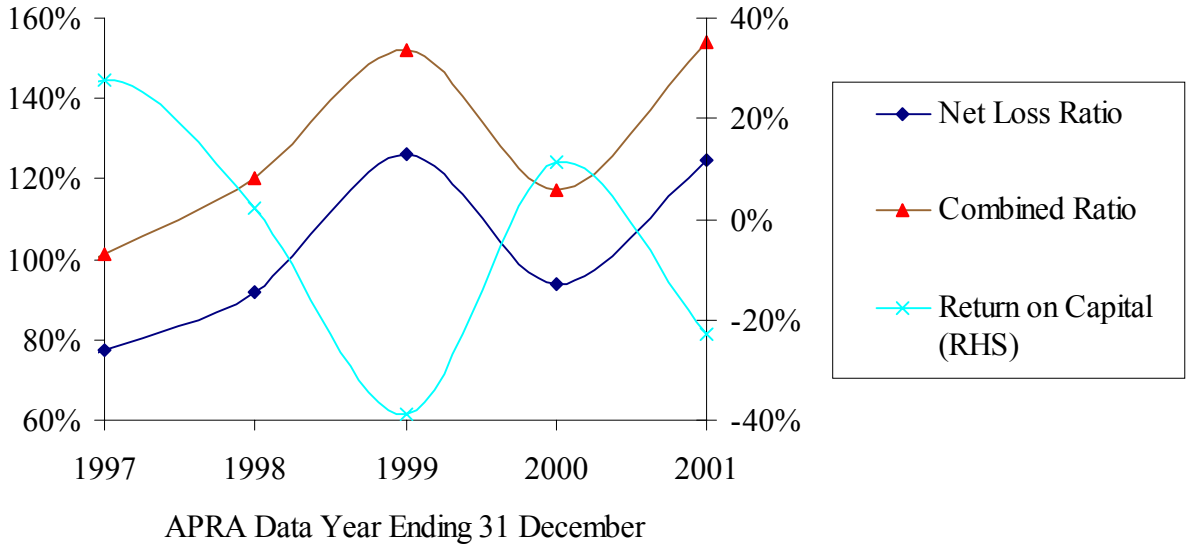
APRA Data Year Ending 31 December

The return on capital for marine and aviation was considered 'high' in the March 2002 review and it was considered unlikely that premiums would need to increase. However, the selected insurers reported that premiums increased on average by 10 per cent. The increase is directly attributed to increases in reinsurance rates following 11 September 2001, which involved the destruction of four aeroplanes and many hundreds of lives. However, considerable scope appears to have existed for insurers to absorb the bulk of the reinsurance increases.

2.3.7 Professional indemnity

Professional indemnity is one of the smaller classes representing 3 per cent of total gross written premium and less than 1 per cent of policies written. However, in 2001 it accounted for 7 per cent of the total general insurance industry's provision for outstanding claims. Considerable uncertainty exists in estimating this liability and therefore in pricing.

Figure 2.15 Profitability of professional indemnity



Premium increases in 2001 were more than offset by the recognition of past losses. The resultant increases in provisions for outstanding claims liability as insurers restore their balance sheets appears to have been the principle cause of the increase in the loss ratio and resultant decrease in return on capital.

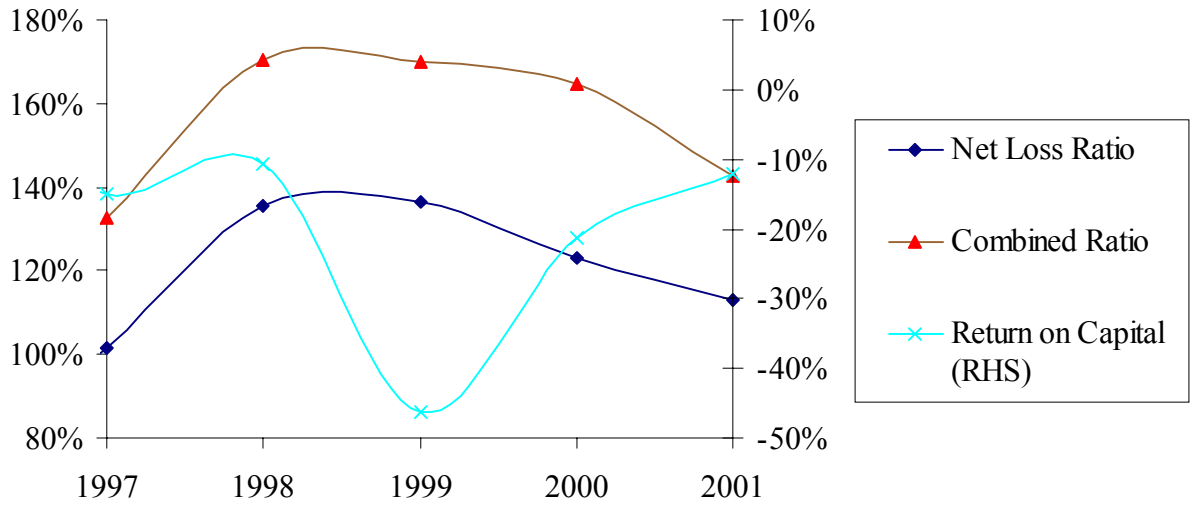
The March 2002 review in this class surmised that insurers may increase premiums by over 20 per cent in response to 'low' profitability. The average increase of premiums in 2001–02 was 24 per cent (refer to section 2.7.6). Assuming the provisions are now adequate, this class is expected to return to profit in 2002.

Further adjustment to provisions may be reported in the 30 June 2002 statistics as remaining insurers report in preparation for APRA's new prudential standards. The expected improvement in profitability may therefore not be evident in the APRA statistics until 2002–03.

2.3.8 Public and product liability

The public and product liability class represents 5 per cent of total gross written premium and 6 per cent of policies written. In the March 2002 review it was noted that the number of policies more than doubled from 1.1 million to 2.5 million from 1999–2000 to 2000–01. The number of policies is reported by APRA to have fallen slightly from around 2.59 million in 2000 to 2.44 million in 2001.

Figure 2.16 Profitability of public and product liability



APRA Data Year Ending 31 December

Loss ratios have reduced from a high of 135 per cent in 1999 to 113 per cent in 2001. This is due to increasing premiums in spite of an apparent strengthening of balance sheet provisions.

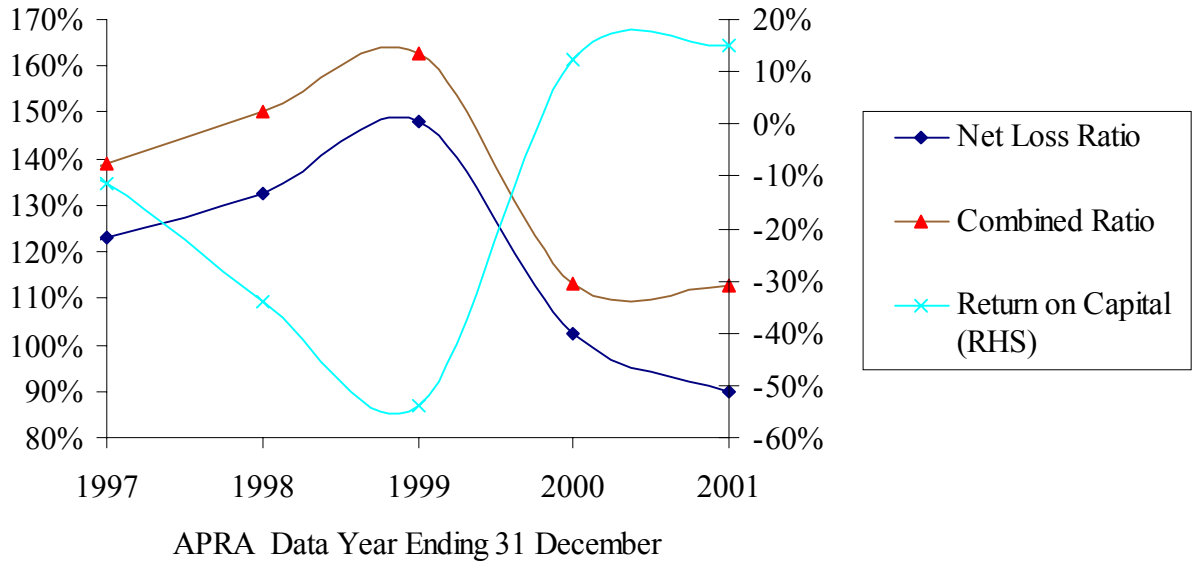
As a result public and product liability continues to show signs of recovery although returns are still considered 'very low'. Although the return on capital is still negative, it continues to trend up since the March 2002 review.

The expectation is for the recent premium increases to restore this class to a profitable level. However, as for professional indemnity, the return on capital at 30 June 2002 is still likely to be negative as further adjustments to balance sheet provisions are reported.

2.3.9 Employers' liability

The employers' liability class is also relatively small representing 4 per cent of total gross written premium and less than 1 per cent of policies written. It is dominated by workers compensation business that is directly underwritten by insurers in the Australian Capital Territory, Western Australia, Tasmania and Northern Territory. Although workers compensation premiums are sizeable for the larger states (South Australia, Queensland, Victoria and New South Wales) they are not included in the APRA returns as insurers in those states generally act as agents and assume no direct risk.

Figure 2.17 Profitability of employers' liability



Loss ratios have significantly reduced since 1999. An increase in net premiums and decrease in the claims expense have combined to increase the reported profitability of this class.

Although the loss ratio reduced to 90 per cent in 2001, this was offset by a significant increase in expenses. Expenses more than doubled from $75 million in 2000 to $153 million in 2001. Investigation revealed that the primary reasons for this increase were a reallocation of expenses across the classes and increased capital expenditure.

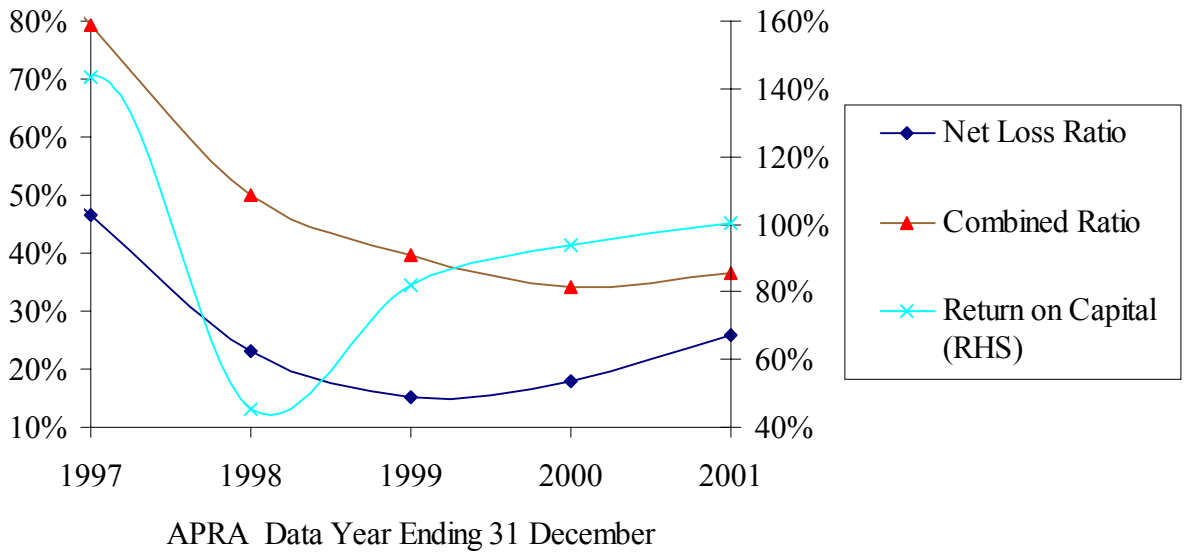
This confirms the analysis contained in the March 2002 review, which revealed a significant turnaround in profitability. The latest figures confirm that profitability is now considered 'moderate'. This is unusual for employers' liability given that the market for employers' liability cover is normally considered to be very competitive and, typically, experiences 'low' to 'very low' returns.

2.3.10 Mortgage

Mortgage is a small specialist class representing 2 per cent of total gross written premium and 3 per cent of policies written. Figure 2.18 illustrates recent loss ratios and continuing 'very high' returns on capital. In 2001 the reported underwriting profit was $106 million.

As previously referred to in the March 2002 review the profitability of this class is closely linked to the strength of the economy. A downturn in economic activity leading to increasing unemployment and default on repayments is likely to result in a significant increase in the loss ratio. This is particularly so if it follows a boom in property values as forced sales in a poor market are likely to result in the increased risk of loans not being covered by sale proceeds.

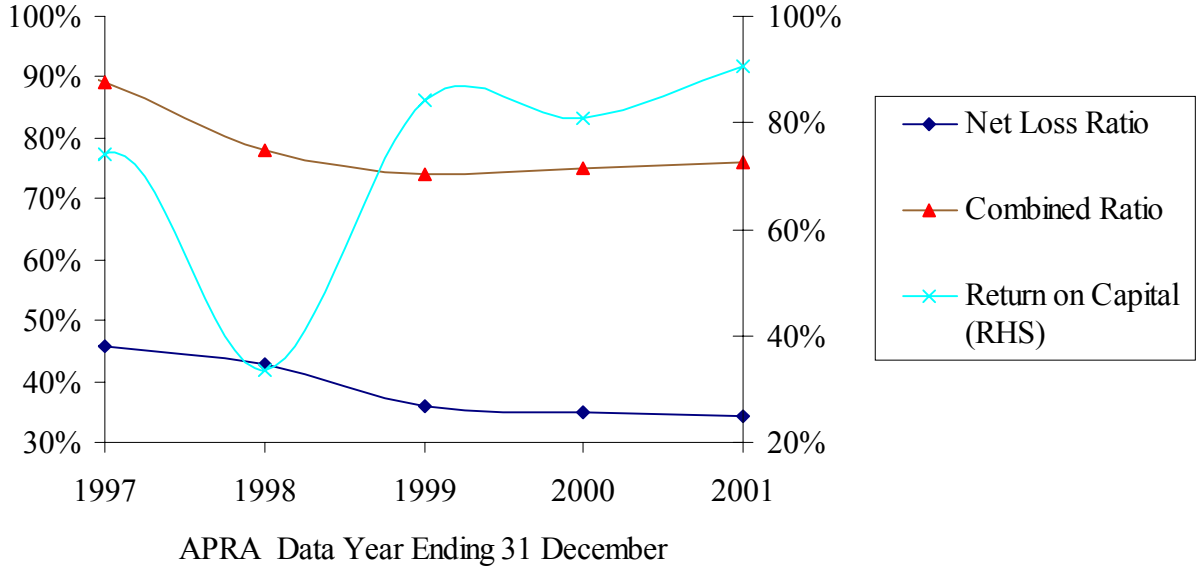
Figure 2.18 Profitability of mortgage



2.3.11 Consumer credit

Consumer credit is a specialist class representing 1 per cent of total gross written premium and 2 per cent of policies written. Figure 2.19 illustrates recent loss ratios and return on capital.

Figure 2.19 Profitability of consumer credit

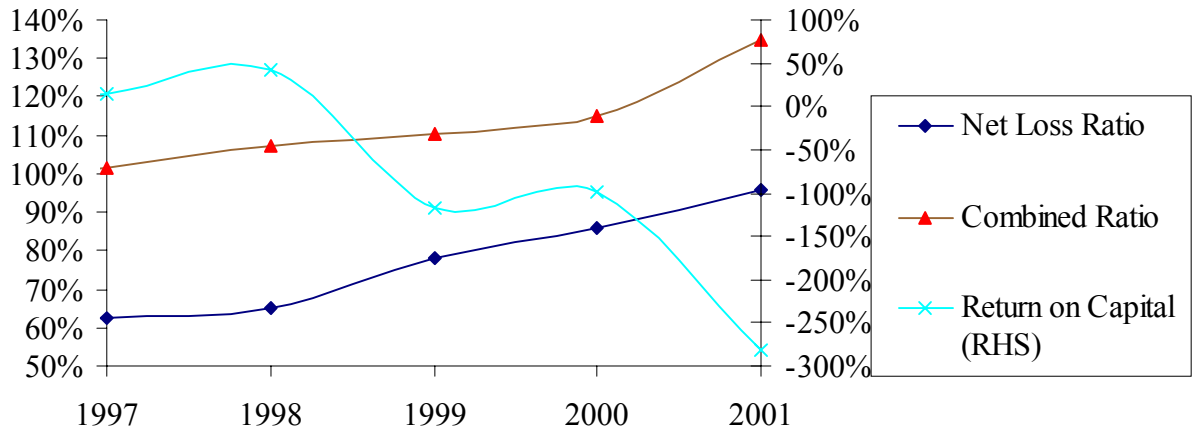


Consumer credit, like mortgage, continues to enjoy 'very high' profit during a relatively buoyant economy. In 2001 the reported underwriting profit was $37 million.

2.3.12 Travel

The travel class is a specialist form of insurance representing 1 per cent of total gross written premium and 2 per cent of policies written.

Figure 2.20 Profitability of travel



APRA (ISC) Data Year Ending 31 December

Figures appear different to that produced in the March 2002 review due to the effect of changing from June to December report dates as previously explained.

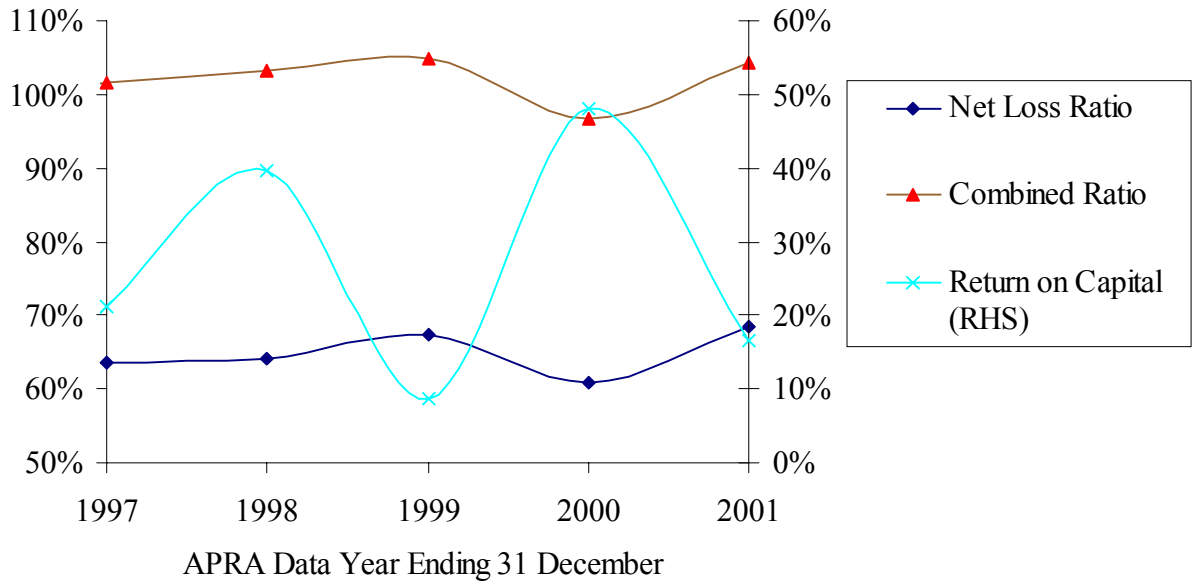
As predicted in the March 2002 review this class experienced a considerable downturn in profitability as the cost of claims increased following the 11 September 2001 terrorist attacks. Further deterioration in the performance of this class can be expected to be evident in the APRA June 2002 industry statistics as insurers who submit balances mid-year provide their results in this class.

The need to revise premiums as a result of recent poor experience will depend on the view taken by insurers as to the nature of recent losses and the expectation that higher losses will occur in the future. It is difficult to foresee that incidents such as occurred on 11 September 2001 will become a regular feature of the insurance landscape.

2.3.13 Other accident

Other accident represents 4 per cent of general insurance business by gross written premium and 4 per cent of policies written. Policies in this class tend to exhibit similar characteristics to other 'long-tail' classes.

Figure 2.21 Profitability of other accident



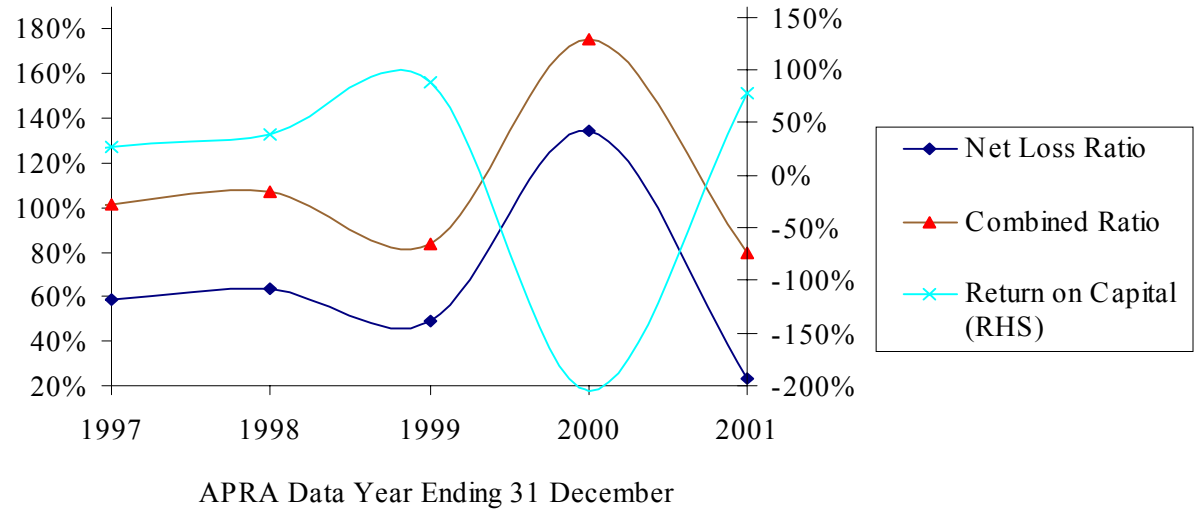
Profitability of other accident, although quite volatile, has generally exhibited 'moderate' to 'high' returns. As indicated in the March 2002 review the sustainability of the 'very high' returns were viewed with some caution due to the past volatility and the possibility of an upward revision in provisions. Indeed, it is apparent that provisions for outstanding claims liability have increased significantly for this class.

2.3.14 Other

Other represents 3 per cent of general insurance business by gross written premium and 2 per cent of policies written. This class has not been examined in detail due to the 'grab bag' collection of insurance covers included in this class.

It is the most volatile of classes with a reported underwriting profit in 2001 of $43 million (the fourth largest profit) compared with an underwriting loss in 2000 of $212 million (the second largest loss). This class represents grouping of miscellaneous insurance business that is not included in the other classes. Meaningful analysis of the performance is not possible given the variety of risks insured.

Figure 2.22 Profitability of other



2.3.15 Inward treaty

The Inward treaty class has remained at 14 per cent of gross written premium and is now 8 per cent of the total number of policies written. This class has increased significantly in recent years but stabilised at around 3.5 million policies with annual premium of $2.5 billion in 2000 and 2001.

Figure 2.23 Profitability of inward treaty

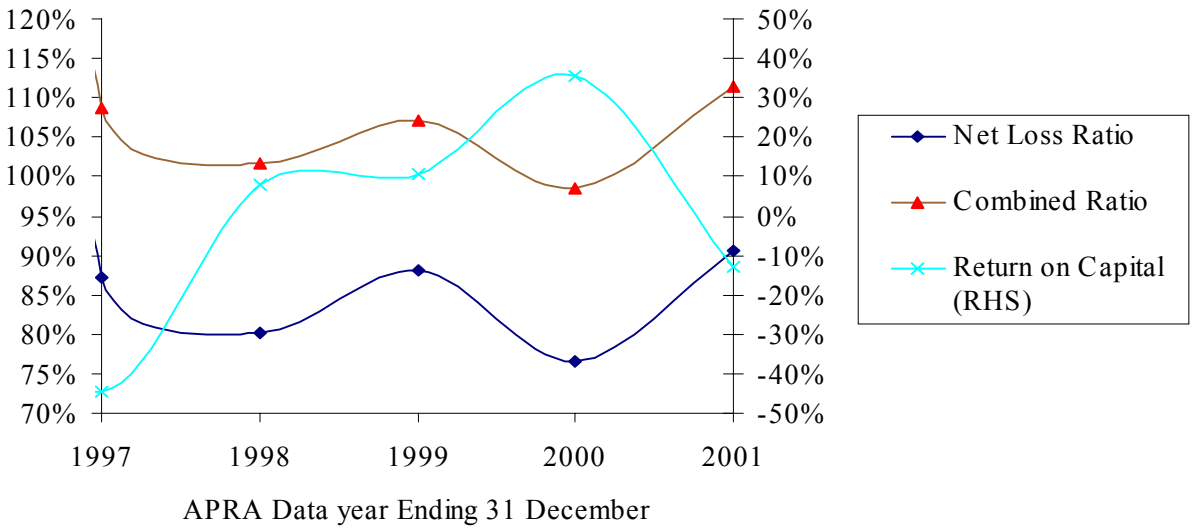


Figure 2.23 suggests that loss ratios have recently deteriorated with the return on capital declining sharply in 2001. The increase in loss ratio is a result of a significant increase in the provision for outstanding claims liability.

As noted in the March 2002 review, the level of provisions appeared inconsistent with recent growth in premiums in the class. The relationship between the level of provisions and business volumes still appears inconsistent from year to year.

The outlook for this class is also not clear. No further meaningful comment can be made on this class as details on the nature of the risks underwritten are not available.

2.4 Summary of the profitability of individual classes

In the March 2002 review it was reported that the general insurance industry had experienced 'low' profitability during the 1990s as measured by the return on equity. This was reinforced by examination of the profitability of each major class of business at that time. The outlook was for 'low' profitability to continue without either an improvement in operating efficiency, increased investment revenue or increases to the existing premiums.

Since that time the outlook has improved considerably following a third consecutive year of super-inflationary premium increases, two years of relatively low domestic losses, and recent supplementary premium increases implemented for the poorer performing classes.

A summary of the performance and outlook for each class of business is contained in table 2.1.

Table 2.1 Performance and outlook

Class of Business	Overall	Recent	Outlook
Fire and Industrial Special Risks	Low	Low	High
Houseowners/Householders	Moderate	High	Moderate
CTP Motor Vehicle	Moderate	High	Very High
Commercial Motor Vehicle	Low	High	High
Domestic Motor Vehicle	Low	High	High
Marine and Aviation	High	High	Very High
Professional Indemnity	Low	Very Low	Low
Product and Public Liability	Very Low	Very Low	Low
Employers' Liability	Very Low	Moderate	Moderate
Mortgage	Very High	Very High	Very High
Consumer Credit	High	Very High	Very High
Travel	Very Low	Very Low	Low
Other Accident	Moderate	High	Moderate
Other	Low	Very Low	Unclear
Inward Treaty	Low	Moderate	Unclear
Overall	Low	Moderate	Moderate/High

Very low indicates that the return on capital invested may be at an unsustainable level suggesting intervention to either increase premiums (perhaps selectively) or exit from the market.

Low indicates that returns on capital are in the range of –5 per cent to +10 per cent. These returns generally do not provide a margin above returns on risk free investments to compensate for the risk involved in insurance.

Moderate indicates returns on capital are being achieved in the range of 10 per cent to 20 per cent. This is significantly higher than the industry has achieved overall over the last eight years.

High and **very high** refers to returns on capital of 20 per cent to 50 per cent and in excess of 50 per cent respectively.

Four classes, CTP, marine and aviation, mortgage and consumer credit are now achieving a 'very high' rating. A further six classes are expected to have a profit outlook of 'moderate' or 'high' taking the total to 10 out of 15 classes with a positive profit outlook. No rating has been provided for 2 of the 15 classes (other and inward treaty) due to the uncertainty of the actual business written in these classes.

Only three classes have a 'low' profit outlook (none are now classified as 'very low') compared with six recording either a 'low' or 'very low' outlook in the March 2002 review. These classes are travel (representing 1 per cent of total written premium), professional indemnity and public and products liability.

2.5 Class outlook

The preceding analysis indicates that the pressure to increase premiums will be greatest in the following classes:

- professional indemnity
- public and products liability
- travel.

The pressure to increase premiums will be moderate for:

- houseowners/householders

There is little pressure to increase premiums and potential scope for reduction for:

- fire and ISR
- CTP motor
- commercial motor
- domestic motor
- marine and aviation
- employers liability
- mortgage (while the economy remains buoyant)

- consumer credit (while the economy remains buoyant)

- other accident (continuation of the upward trend in premiums is expected reflecting realisation of losses being incurred)

Insufficient information exists in relation to the other and inward treaty classes to make an assessment of their outlook.

2.6 Price movements

This section reports on the price increases in certain classes of general insurance reported to the Commission by selected insurers.

2.6.1 Selected classes

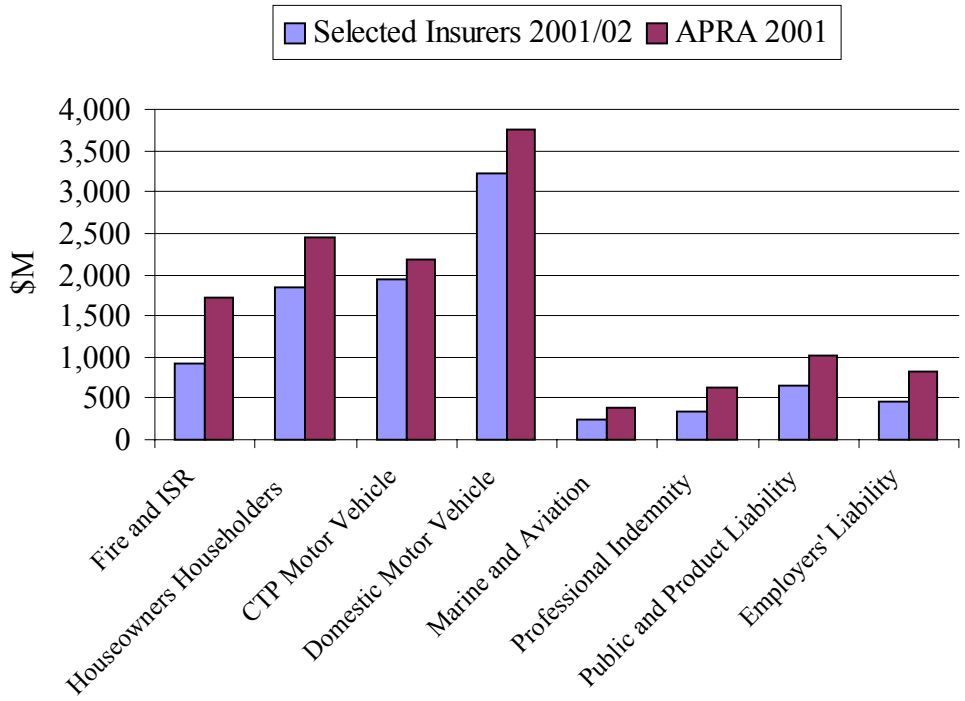
To provide an update of price movements, selected insurance companies and their reinsurance companies were asked to provide detailed information on policies that were renewed over the period June 2001 to May 2002.

The movement in prices are quoted as average premium increases for each insurer responding to the request. Premium details were provided for the following classes:

- fire
- industrial special risk
- houseowners/householders
- compulsory third party
- domestic motor
- marine and aviation
- professional indemnity
- product and public liability
- employers' liability.

The comparison of the selected insurers to the market as published by APRA as at 31 December 2001 is shown in figure 2.24.

Figure 2.24 Comparison of written premium selected v. market



Although there are slight differences in timing with APRA statistics for annual returns in the year ending in 2001, the selected insurers represented a high proportion of written premium compared to the market.

The premium rate charged for new or renewal business is a reflection of the risk exposure, sum insured, level of deductibles, policy terms and conditions, insurer's reinsurance costs, the insured's past claims experience and various other factors depending on the class of business.

The Commission is therefore aware that the renewal premium for a client may change without the underlying premium rate changing due to a change in the insured's circumstances over the year. For example, if the insured's policy has a rating factor based on asset values and their assets increase over the year, the renewal rate may not change but the insured will incur an increase in their renewal premium.

However, the Commission considers that changes to the prices of renewal business for a large cross-section of the industry provides a useful insight into the price increases across the industry, albeit with some allowances having to be made for the reasons outlined above.

2.6.2 Cost drivers

Details were also sought from insurers in respect of cost drivers for the various classes. Identified cost drivers are briefly discussed and the impact broadly quantified for the main classes.

2.6.3 Reinsurance

Increase in the cost of reinsurance was given as a reason by many of the insurers as contributing to the renewal price increases for different classes of business. Even without the 11 September 2001 terrorist attacks there were indications that reinsurers were increasing their rates due to the poor profitability of the business in recent years. The subsequent impact of the 11 September 2001 event caused reinsurers to further increase the cost of reinsurance.

Table 2.2 shows the proportion that reinsurance revenue bears to gross premium revenue for each class. Figures are based on APRA statistics at 31 December of each year. The increases in the reinsurance costs for the property classes of fire and ISR, houseowners and domestic motor accounted for 85 per cent of the increases across all classes from 2000 to 2001. Further, for these classes the reinsurance premium represents a high proportion of the gross premium. Any change in the price of reinsurance will therefore have a direct impact on premium rates.

The increases below can be assumed to be before the impact of the 11 September event and therefore further increases in reinsurance costs and direct premiums during 2002 will be reported as the December 2001 and June 2002 reinsurance renewals are factored in.

Table 2.2 Ratio of reinsurance revenue to gross premium revenue

Class	APRA Reporting Years		
	1999	2000	2001
Fire and Industrial Special Risks	37%	40%	45%
Houseowners/Householders	16%	23%	32%
CTP Motor Vehicle	14%	16%	18%
Domestic Motor Vehicle	14%	30%	44%
Marine and Aviation	23%	23%	25%
Professional Indemnity	41%	36%	39%
Public and Product Liability	25%	35%	22%
Employers' Liability	22%	15%	8%
Other Classes	14%	14%	17%
All Classes	19%	23%	28%

Premium increases for the selected insurers were provided by month of renewal. This has enabled the increases to be monitored both before and after the event. While the impact of the event on insurers pricing is not immediate, the analysis of this data will only provide a general guide as to the impact on the renewal prices in the later stages of 2001–02 year.

Insurers state that the price of reinsurance has increased through:

- Increases in the cost of catastrophe covers that protect overall classes or groups of classes from a specific event. For example, all losses over and above a specified retention from an insurer's motor and householders portfolio caused by a severe hailstorm may be protected by a catastrophe policy.

- Increased cost of excess of loss reinsurance. This reinsurance covers the insurer for claims that exceed a specified retention within a portfolio, for example, claims that exceed $2 million. The insurer pays the reinsurer an excess of loss premium, usually expressed as a percentage rate on the insurers direct premium and in return the reinsurer will meet the cost of the excess amounts above the insurer's retention. Typically, excess of loss reinsurance is seen in liability classes such as compulsory third party, professional indemnity and public and product liability.

- Reductions in the amount of exchange commission paid by the reinsurer on proportional reinsurance covers. In proportional reinsurance, the reinsurer receives a proportion of the direct insurer's premium for each risk and assumes the same proportion of the liability for claims arising in respect of that risk. The reinsurer pays the direct insurer a fee, usually called exchange commission, which is intended to reimburse the direct insurer for expenditures incurred in acquiring the business. Due to the proportional nature of the coverage the reinsurer follows the fortune of the direct insurer. However, if the reinsurer is reducing the exchange commission it will effectively increase the cost of reinsurance for the direct insurer.

- Increased costs of facultative reinsurance. This is where the insurer places an individual risk with a reinsurer on specific terms for that risk. It generally would occur for large or unusual risks that are outside the standard treaty arrangements. As such, the reinsurers' price directly affects the price the insurer charges for the risk.

A detailed review of the international reinsurance market including a review of the effects of the events that occurred on 11 September 2001 are provided in appendix B.

2.6.4 Past underwriting results/pricing practices

A number of insurers stated that a factor that contributed to the increase in renewal premiums was the insurers intention to improve the underwriting performance of certain classes. The insurers were required to improve the profitability of a class after past results showed combined ratios that were well in excess of 100 per cent and in some cases the loss ratios were also in excess of 100 per cent.

A combined ratio in excess of 100 per cent means that the payments to claims and insurers expenses were in excess of the premium received. A loss ratio greater than 100 per cent means the insurer's claims costs alone were in excess of the premium.

Insurers also receive income on the investment of the insurance funds, however, past performance for many classes has been below levels that provide a reasonable return on insurers' capital. Increases to the rates were therefore undertaken to improve the returns on capital employed.

A number of insurers also stated that there were increases in renewal premiums due to improved risk measurement. For example, increases in risk inspections by engineers revealed exposures previously overlooked and increased rates or limits on coverage then occurred.

A further reason stated by some insurers was stricter adherence to pricing and underwriting standards. For example, reviews conducted by insurers led to the removal or reduction of discounts that applied to specific risks which were often the larger risks.

2.6.5 Claims costs/claim frequency

Related to the need to improve the underwriting result some insurers stated past inflation of claims costs and/or increase in claim frequency has been a driver to increase the premium rates. The higher claim costs were causing underwriting performance of the class to deteriorate requiring an increase in the rates.

Further discussion of claims costs for professional indemnity and public liability classes is provided in sections 3.2 and 3.3 respectively.

2.6.6 Investment return outlook

The environment of low interest rates plus lower returns from other investment sectors (shares both Australian and overseas in particular) has resulted in the insurers placing greater emphasis on the need to further improve underwriting results to achieve the same or higher returns on capital than they had been achieving.

While high investment returns may be used to provide discounts, it is considered unsound practice for underwriters to have anticipated that high investment returns would continue.

2.7 Price increases

The average rate of increase reported to the Commission for the various classes are shown in table 2.3 and figure 2.25 together with the minimum and maximum increases for individual insurers. The increase refers to renewals in the period June 2001 to May 2002. The increases for renewal premiums provided in the March 2002 review for 2000–01 are also shown.

Table 2.3 Renewal premium increases

Class	2001/02 Increase	2000/01 Increase	Current Minimum	Current Maximum
Fire and ISR	29%	20%	12%	178%
Houseowners Householders	6%	3%	3%	13%
CTP Motor Vehicle	3%	0%	2%	6%
Domestic Motor Vehicle	2%	6%	-7%	6%
Marine and Aviation	10%	3%	-3%	65%
Professional Indemnity	24%	27%	12%	61%
Public and Product Liability	22%	15%	10%	42%
Employers' Liability	1%	7%	-4%	13%

Figure 2.25 Renewal premium increase for 2001–02

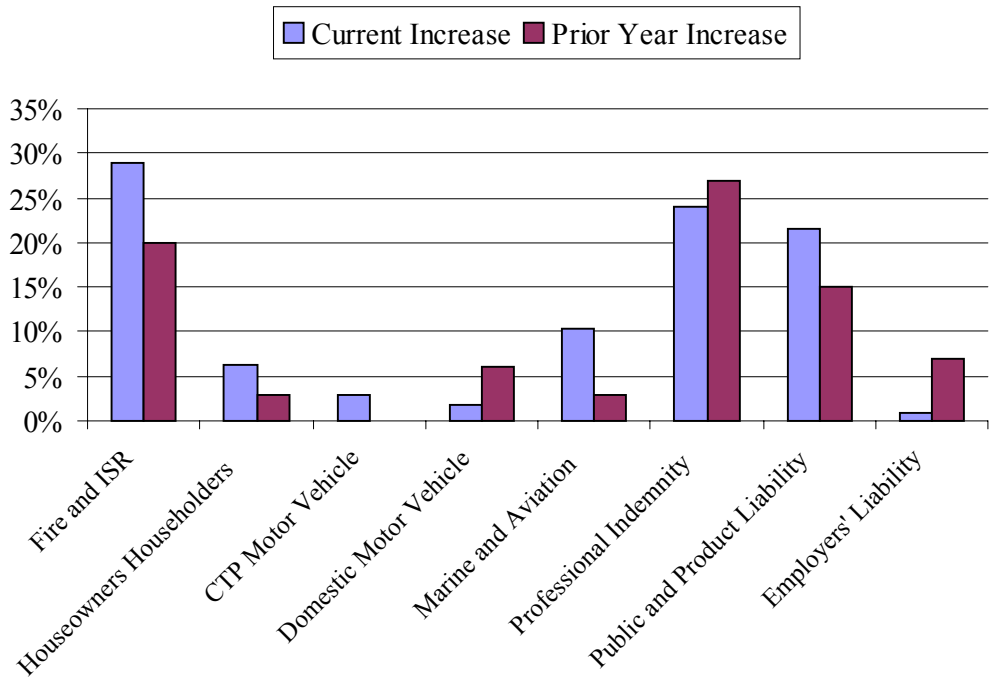


Figure 2.25 clearly demonstrates the successive years of high premium increases in fire and ISR, professional indemnity and public liability.

2.7.1 Fire and industrial special risks (ISR) (29 per cent increase)

Fire provides indemnity against loss of the building and/or its contents resulting from fire, lightning or explosion.

ISR provides a range of cover to business for 'all risks of loss or damage'. Given the broad cover that this entails, the policy wording is typically characterised by its specific exclusions.

The average increase for this class was 29 per cent with a range of 12 per cent to 178 per cent. The high end of the range was a very small portfolio (less than $10 million premium income). The next highest increase was 88 per cent.

Several insurers commented on specific large risks where premium increases have significantly impacted their results. These increases in premiums reflect the need to improve underwriting results and in particular to remove or reduce the large discounts often given to the large risks that commonly occurred when insurers priced with the aim to increase their market share rather than to achieve a prudent underwriting result. One insurer commented that the increases were also driven by clearer recognition of increased exposures previously ignored or overlooked.

The impact of reinsurance price rises following the 11 September terrorist attacks has also partly contributed to the observed increases, with the cost of reinsurance being higher in the second half of 2001–02. On the available evidence it is estimated that about 5 per cent out of the 29 per cent increase can be attributed to higher reinsurance costs following September 11. These increases will continue to work through renewals till at least December 2002.

Insurers also stated that reinsurance prices were increasing for reasons other than the September 11 event and it is estimated that reinsurance increases accounted for about 10 per cent of the overall increase in 2001–02 for this class.

Many insurers commented that the increases in premium for this class reflected the need to improve underwriting results with the class experiencing poor financial results since 1998–99.

2.7.2 Houseowners/householders (6 per cent increase)

This class covers property damage to the owner's house and contents. Typical exclusions are for flood, war, and civil unrest. Insurers explicitly rate contents separately from building and public liability associated with houseowners/householders.

The automatic CPI indexation that is usually applied to this class could be expected to account for approximately 3 per cent of the reported increase.

It is noted that increases have tended to be higher since around January 2002. This reflects the higher cost of catastrophe reinsurance that is now being charged for this class following the December renewals. Catastrophe reinsurance rates have been significantly impacted from the reduction in world-wide capacity following the events that occurred on 11 September 2001.

Reinsurance costs have increased by around 30 per cent to 35 per cent. Insurers indicated in interviews that these reinsurance increases will be passed on to policyholders. It is apparent that recent increases in reinsurance premiums have been passed on and largely account for the increase of 3 per cent observed in excess of the 3 per cent expected for the effect of inflation.

The range of increases is relatively small (3 per cent to 13 per cent) across the selected insurers. As indicated in section 2.3.2 further increases can be expected as reinsurance rates rose at the recent June 2002 renewals. This class may also be subject to risk re-rating along similar lines observed for the domestic motor in the March 2002 review. This could result in significant changes to premiums paid (both high and lower) with no apparent change in the circumstances of the consumer.

2.7.3 Compulsory third party motor vehicle (3 per cent increase)

The key feature of this class is that in New South Wales, the Australian Capital Territory and Queensland CTP premium rates are regulated. For example, in Queensland, floor and ceiling rates for each vehicle class are set by the regulator on a quarterly basis. In New South Wales and the Australian Capital Territory the regulators require at least yearly submissions by insurers that wish to participate in this market.

The last year has seen only minor increases being introduced in line with wage inflation, a major driver of claims costs. The limited range of increases reported (2 per cent to 6 per cent) reflects the regulated nature of the market and recent profitability in the NSW market suggesting that some scope may exist for premiums could to reduce.

2.7.4 Domestic motor vehicle (2 per cent increase)

This class covers property damage to the owner's vehicle and/or third party property such as other motor cars or damage done by the policyholder's vehicle to other property.

The reductions in vehicle values and the effect of 'no claim bonus' provisions in policies have significantly influenced the level of changes in renewal premiums for this class. Although the change in renewal prices is only 2 per cent overall it would be expected that the sums insured may have fallen by around 10 per cent on average. The actual increase in premium rates may therefore be in the order of 12 per cent. The range of increases across the selected insurers is relatively small.

Table 2.2 shows that the proportion of gross premium taken up by reinsurance increased substantially in 2001 from 30 per cent to 44 per cent. Catastrophe reinsurance costs would have been expected to be a cause of this increase and the main cost driver to the higher premium rates, albeit the actual renewal rates having little change due to lower sums insured.

2.7.5 Marine and aviation (10 per cent increase)

This is a broad aggregation of policy types that covers own damage to the vessels or craft, third party property damage (including cargo) and personal injury.

Although there was considerable range in the percentage change (-3 per cent to 65 per cent) both of the extreme values were for relatively small portfolios. The insurer that reported a renewal premium reduction of -3 per cent, stated that the reason for this was its introduction of premium discounts on marine policies for multipolicy customers.

The next highest increase to the maximum reported increase of 65 per cent was an increase of 34 per cent reflecting the unusual nature of the largest increase.

The range of increases reflects the relative profitability of marine insurance as aviation has experienced large increases in reinsurance rates following the 11 September 2001 terrorist attacks which involved the destruction of four aeroplanes.

2.7.6 Professional indemnity (24 per cent increase)

Policies in this class provide cover to persons against their legal liability for losses caused by professional negligence. The increase in renewal premiums for this class was high and most selected insurers had instituted increases in the 20 per cent to 35 per cent range.

The main reasons given for the increase for this class are:

- recent past poor underwriting as a class
- higher claims costs experienced and expected in future by insurer
- poor claims history of larger clients
- increased reinsurance costs
- increased exposures, e.g. higher fee income of professionals leads to higher premiums even with no change in rates.

It is expected that the increases mainly reflect the insurers' requirement to obtain improved underwriting results for this class. One insurer commented that it was the policy for stricter adherence to underwriting and pricing standards by way of reducing discounts offered on the book rates that has increased the renewal premiums.

There were higher levels of reinsurance premiums as a proportion of gross premiums in 2001 (see table 2.2) and the monthly statistics show much higher increases from December 2001 probably driven by higher reinsurance costs following 11 September 2001. The higher cost of reinsurance may account for approximately 5 per cent of the increase.

The change in exposure measures from one year to the next would be expected to account for a further 5 per cent of the increase. Exposure measures such as fee income for professionals or sales would typically be used.

The balance of 15 per cent however is likely to be associated with the insurers' decision to restore this class of business to profitability for 2002. This class is considered further in section 3.2.

2.7.7 Public and product liability (22 per cent increase)

Policies in this class provide protection against claims made against the insured by third parties for bodily injury or damage to property for which the insured is legally liable. The type of cover included in this class can also include the recall of products and breaches of warranty.

The reasons for the increase in premiums for this class are very similar to the professional indemnity class. Both classes have experienced similar percentage increases and the reasons given by insurers were often grouped for the two classes. For those insurers that wrote both classes the percentage increases were generally similar for both classes.

Reinsurance costs are expected to contribute around 5 per cent to the observed increase with inflation also contributing another 5 per cent.

Given that the class is still producing negative return on capital, the remaining 12 per cent increase can be considered to represent the degree of underpricing either through the operation of the market or the lack of recognition of the true cost of claims.

This class is further considered in section 3.3.

2.7.8 Employers' liability (1 per cent increase)

Each state and territory in Australia requires employers to indemnify employees in the event of workplace injury. Across each of these jurisdictions access to compensation and the quantum of benefits varies significantly as do the types of schemes in operation. Workers compensation is privately underwritten in Western Australia, Tasmania, Northern Territory and the Australian Capital Territory.

The range of increases reported by the selected insurers for this class was -4 per cent to 13 per cent with the majority of changes in renewal premiums close to 0 per cent. A couple of the smaller insurers had the largest changes.

Allowing for average wage increases on the renewals of around 4 per cent, the actual increase represents a decrease in the premium rates in real terms. Table 3.1 showed a reduction in the proportion of gross premium paid to reinsurers for this class that may account for the fall in rates. Further, the change in renewal premiums from the selected insurers in the months from December 2001 to May 2002 were often negative implying that there was little or no impact from the September 11 event on the renewals.

This class also appears to be providing a 'moderate' return on capital (refer to section 2.3.9), which is unusual for the typically competitive market. Along with CTP, this class had the fewest number of selected insurers underwriting the risks.

3 Public liability and professional indemnity insurance

The purpose of the third section of this review is to describe and analyse the structure and performance of public liability and professional indemnity sectors of the insurance market. The section concludes with a discussion of possible measures that may be introduced to influence the cost and availability of insurance services indemnifying against these risks.

3.1 Public liability and professional indemnity insurance: market structure

The following subsections provide an overview of the structure of the public liability and professional indemnity markets.

3.1.1 Public liability

Public liability insurance provides protection for those who would otherwise have to pay damages due to a breach of common law rights. Public liability policies are open-ended in that they cover all liability in respect of a particular location or activity, unless excluded by the policy wording.

Most Australian licensed insurers sell public liability insurance. However this is primarily as a consequence of it being a component of home and contents policies. This spreads fixed costs such as acquisition, issue and administration over a considerably larger base premium. In some cases, this leads to the cost of the liability cover only being loosely accounted for, it being but a small part of the whole.[8] Public and product liability insurance represents 5 per cent of total gross written premium and 6 per cent of policies written.

Stand-alone public liability insurance is almost exclusively distributed through brokers and agents. Where brokers are involved, the insurer does not have direct access to the client and has to rely on the information provided by the broker, adding to the difficulty of assessing the risk and in turn of setting an appropriate price.[9]

Recently two companies, St Paul and AIG (a large global insurance company) have ceased providing public liability insurance. It should be noted that AIG still writes excess of layers cover but since 1998 has not written primary cover.

In addition to the direct underwriters, a number of underwriting agencies provide cover on liability insurance and obtain their insurance capacity from Lloyd's, Australian

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8 Institute of Actuaries of Australia submission to the ministerial meeting on public liability issues, March 2002.

9 Institute of Actuaries of Australia submission to the ministerial meeting on public liability issues, March 2002.

licensed insurers and other overseas markets or reinsurers. Some liability insurance is placed overseas with insurance companies not licensed in Australia, but the insured in these cases cannot rely on the protection of legislation governing insurer conduct.[10]

Public liability policies are typically written on a claims occurring basis in which premiums cover all incidents that occur in the policy year regardless of when they are notified.

Before 1997 such insurance was largely voluntary with the exception of certain public events and facilities, where a licensing authority required public liability insurance (see also section 3.2.4). Since then, contracts issued by governments to businesses for government work have required businesses to take out public liability insurance. Consequently, such insurance is effectively compulsory, although not mandated by legislation, for many businesses. In addition, many organisations that operate on a voluntary basis with the support of local councils, are also generally required to hold public liability insurance so as to protect the supporting body against claims. As discussed in more detail at section 3.5.1, many of the not-for-profit community groups that are required to obtain public liability insurance tend not to be well-resourced and have little capacity to meet large increases in premiums.

The main cost of public liability policies is for personal injury (both physical and psychological) whereas claims for property damage, though higher in number, are generally for amounts considerably less. Other forms of loss are typically covered by more specialised liability insurances, such as professional indemnity where claims mainly concern pure economic loss except in the cases of medical malpractice. The main elements of compensation considered in the settlement of a claim are referred to as heads of damage, and are:

- economic loss
    - past loss of income (before settlement of the claim)
    - loss of future earning capacity
- treatment and care
    - medical treatment etc.
    - hospital
    - prosthetic and other aids
    - rehabilitation
    - home modification
    - domestic and live-in help

[10] Institute of Actuaries of Australia submission to the meeting of ministers, 27 March 2002.

- fund management

- non-economic loss
  - pain and suffering
  - loss of use
  - bereavement

- exemplary damages (rare in Australia)

- plaintiff legal costs awarded against the defendant.[11]

In addition to the costs they incur from meeting damages awarded, insurers also incur costs where they defend each case. The costs associated with this include:

- assessment

- expert reports (e.g. medical, valuers, engineering)

- investigation/surveillance

- defendant legal

- claim administration.[12]

General costs are also incurred, adding a loading of 30–50 per cent to the risk premium for liability policies:

- general administration

- policy distribution (including issuing of policies, commission and other fees)

- policy taxes and duties

- profit margin.[13]

Figure 3.1 below provides an overview of the HHI of the public and product liability insurance market from 1998 to 2001.

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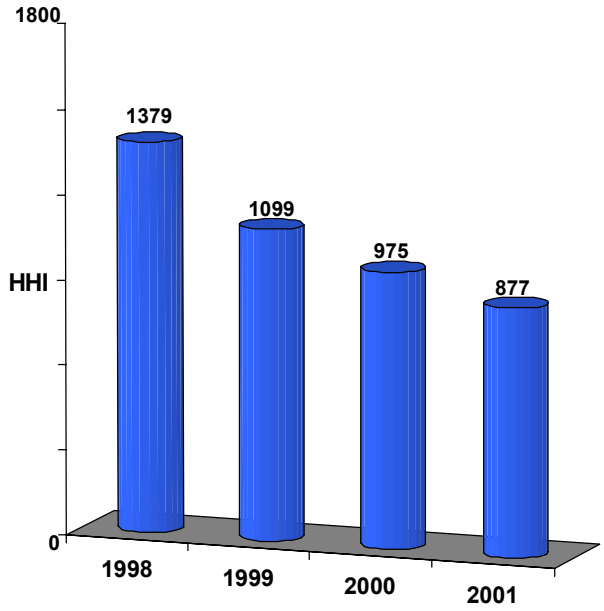
[11] Institute of Actuaries of Australia submission to the Public Liability Forum, March 2002, p. 5.

[12] Institute of Actuaries of Australia submission to the meeting of ministers, 27 March 2002, p. 5.

[13] Institute of Actuaries of Australia submission to the meeting of ministers, 27 March 2002, p. 5.

Figure 3.1 HHI of the public liability insurance market from 1998 to 2001



As discussed, the higher the figure, the more concentrated the market. The table seems to suggest a substantial decrease in concentration since 1997. However, it should be noted that these figures are for a combined public and product liability insurance market as it has not been possible to obtain disaggregated figures for public liability alone.

3.1.2 Professional indemnity

Professional indemnity insurance indemnifies professional persons—accountants, architects, engineers, lawyers, health professionals and others—for legal liability to clients and others relying on their advice. This liability principally arises from negligent acts or omissions, breaches of contracts or the contravention of statutes.

The nature of claims differs according to the profession being indemnified. For instance, accountants, lawyers and financial advisers are usually indemnified against actions for economic loss. Architects and engineers are indemnified against actions for physical damage leading to economic loss and personal injury; while claims against doctors arise mainly from personal injuries, which frequently include a damages component for pain and suffering. Professional indemnity represents 3 per cent of total gross written premium and less than 1 per cent of policies written.

Although relatively simply defined, professional indemnity has evolved into a diverse range of products making analysis at the class level inconclusive. Most cover is provided on a ‘claims made’ basis in which premiums cover incidents notified in the policy year

(although a recent court decision casts this into doubt).[14] Some policies are written on a 'claims occurring' basis in which premiums cover all incidents that occur in the policy year regardless of when they are notified.

The supply arrangements for professional indemnity are similar to those for public liability as discussed above. However, professional indemnity is relatively more likely, compared to other insurance classes, to be provided through mutual insurance arrangements rather than through licensed insurers. This reflects the high cost, or in some cases, unavailability, of commercially supplied insurance. The members of these mutuals are the 'shareholders' and the mutuals are operated on a not-for-profit basis for the benefit of their members. They are therefore not required to meet the stringent capital adequacy and reserving standards or the accounting standards that apply to licensed insurers.

Such arrangements are especially widespread in the medical and legal professions.[15] For instance, in New South Wales, the Law Society has the function of managing the professional indemnity requirements for NSW solicitors. LawCover was established by the Law Society to do this. In addition, there is a Solicitors Mutual Indemnity Fund, set up as a statutory mutual fund in 1987 as a 'back up'. Since 1 July 2001, American Re-Insurance Company has underwritten the policy issued and managed by LawCover, with optional 'Top Up' underwritten by Gerling Australia Insurance Company Pty Ltd and QBE Insurance (Australia) Ltd. The sole insurer of the LawCover scheme was HIH until its liquidation in 2001, after which LawCover used the unallocated funds in the Solicitors' Mutual Indemnity Fund as a 'rescue package'.

On the information available, few for-profit insurers are willing to offer professional indemnity insurance for the medical profession. GIO Limited offered cover for a short period in the late 1980s and early 1990s. St Paul, the largest medical malpractice insurer in the world, entered the Australian market in 2000, but has since withdrawn from the medical malpractice insurance market altogether after recording a significant loss in this class.

Medical indemnity insurance is also offered through Australian Medical Defence Organisations (MDOs). These are mutual not-for-profit organisations that offer discretionary cover with membership.

The professional indemnity insurers remaining in the Australian market are generally hesitant to offer medical malpractice insurance because of potential exposure to very few but large multi-million dollar awards that typically account for around 40 per cent of the

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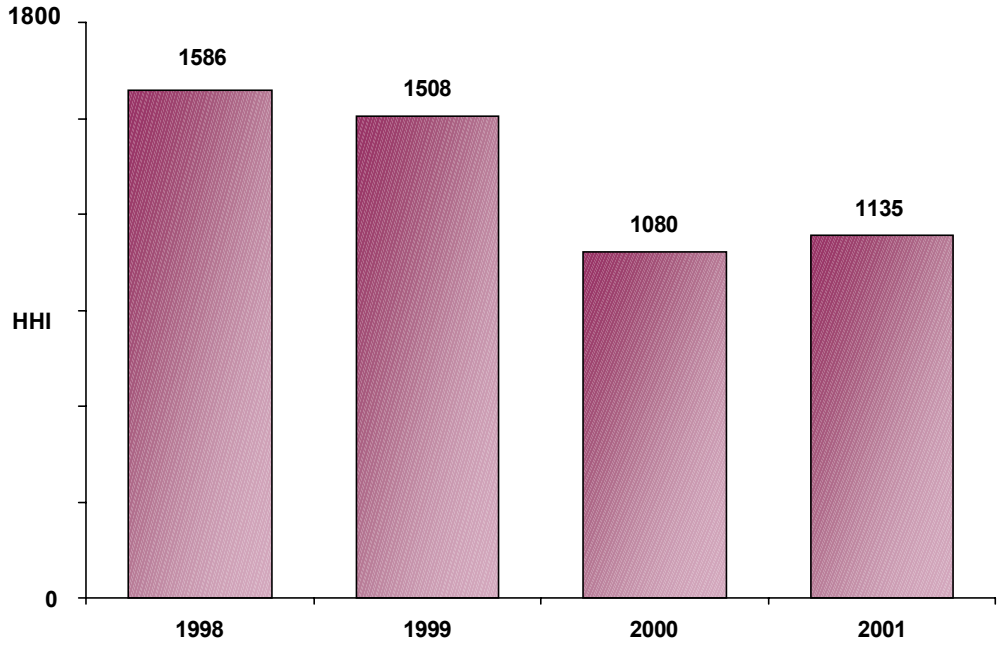
[14] *FAI General Insurance Company Limited v Australian Hospital Care Pty Ltd*, B23/2000 (17 November 2000).

[15] The facts in the following discussion are extracted from Insurance Council of Australia, November 2001, *Background Paper No. 4: Professional indemnity insurance (for the legal and medical profession)*', prepared for the HIH Royal Commission.

total cost of claims. This uncertainty in costs is exacerbated by delays in the commencement of proceedings by persons who were minors at the time of the injury.[16]

Figure 3.2 below provides an overview of the HHI of the professional indemnity insurance market from 1998–2001.

Figure 3.2 HHI of the professional indemnity insurance market from 1998–2001



The figure shows that past levels of concentration have been close to the 'high concentration' figure prescribed by the US Department of Justice of 1800. However concentration levels seem to have fallen consistently from 1998 to 2000 and then risen substantially from 2000 to 2001, though the market is currently still far from being highly concentrated.

3.2 Professional indemnity: costs and performance

This section describes the review undertaken into the costs and performance of professional indemnity insurance. Analysis is based on the returns provided by the selected insurers and draws on other market commentary and analysis.

Ten of the sampled insurers wrote this class. The proportion that the selected insurers' written premium bears to the professional indemnity market, as measured by APRA statistics for the year 2001, was 54 per cent.

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[16] ICA sub. 4, p. 3.

3.2.1 Classes of professional indemnity insurance

Two classes that cause considerable underwriting difficulty for insurers are directors and officers, and medical malpractice. A short description of these classes and the difficulties encountered are outlined below. The statistics that follow, however, aggregate all types of professional indemnity business.

3.2.2 Directors and officers (D & O)

One special sub-class of professional indemnity is directors and officers (D & O). Specialist insurers, due to the unique characteristics of the cover, typically underwrite this class. D & O cover is characterised by infrequent but extremely large losses resulting in either very low or extremely high loss ratios.

While a number of minor claims may be raised, the total loss tends to be determined by very few but very large high profile claims. Difficulty in underwriting is caused by the variability in the cost of each claim rather than the number of claims involved.

This class is currently being exercised with reasonable frequency given the recent difficulties experienced by a range of corporations in the insurance, telecommunications and transport industries.

3.2.3 Medical malpractice

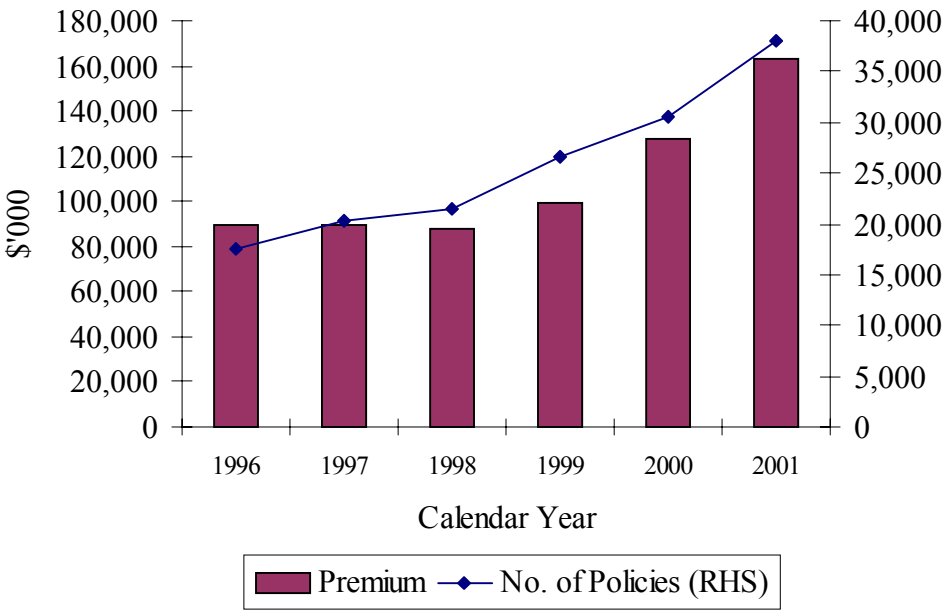
Another sub-class that is also difficult to underwrite is medical malpractice. Medical Defence Organisations (MDOs), which are not governed by APRA, underwrite malpractice for doctors and specialists. Authorised insurers cover hospitals and ancillary staff, such as midwives, nurses and other staff. While the MDOs bear the main brunt of escalating claims costs, which are driven by both an increase in the community's awareness of their rights and the broadening of awards for severely injured claimants, insurers also contribute to these costs.

As for D & O, this class experiences volatile losses as a result of a few but very large claims. In addition, it is affected by the latency in raising claim files. Although the insurer may be notified of the incident it may take many years (sometimes decades) before a writ is actually lodged (children are able to claim many years after the incident). Costs associated with more minor incidents are also difficult to assess.

3.2.4 Policy numbers and premium changes

As noted in section 2.7.6, this class has experienced average renewal premium increases of 27 per cent and 24 per cent over the last two years. Figure 3.3 shows the growth in premium income and number of policies for the selected insurers that provided complete data from 1996.

Figure 3.3 Written premium income (indexed) and policy count



Selected Insurers

There has been strong premium volume increases over the two years to 2001. The Commission has been advised by the sampled insurers that these increases are projected to continue in 2002.

Comparing the premium trend to the past profitability for this class (figure 2.15) the steady increase in the net loss ratio from 1997 to 1999 occurred while premiums were static in real terms and falling on a per policy basis. The favourable experience in 2000 coincides with the increase in written premiums.

Although the premiums increased again in 2001 the impact of substantial increases in insurers' provisions for outstanding claims caused the loss ratio to further deteriorate in 2001.

Numbers of policies issued grew significantly throughout the 1990s. Investigation of this phenomenon suggests that a key driver for the issuance of policies was the gradual introduction by the public sector of the need for consulting firms to demonstrate adequate cover for both professional indemnity and public liability.

For example, before 1994 most Victorian public sector letters of engagement were silent on the need for insurance. Around 1995 (the exact timing is unclear) the Government Solicitors' Office introduced standard form contracts for use by the various departments and agencies, which specified the need for contractors to provide evidence of adequate cover for professional indemnity and public liability. Other states introduced similar requirements during the mid-1990s (again details of the exact timing has not been determined).

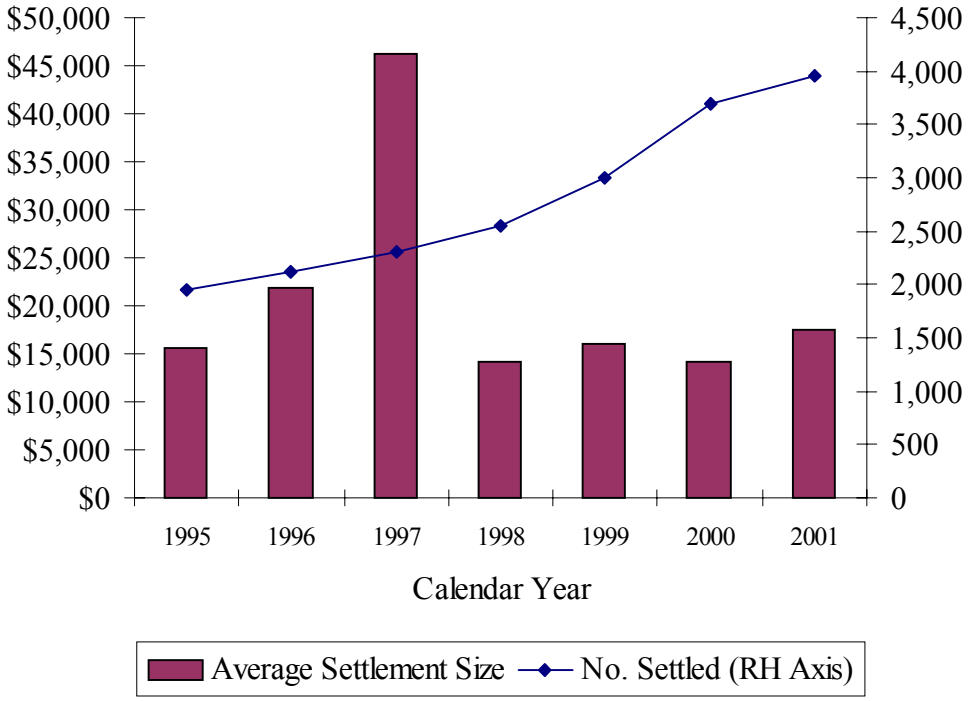
The trigger for the introduction of these clauses is also unclear. Coincidentally, it follows the significant outsourcing of information technology contracts, which took place in the early 1990s, and the resultant transfer of risk from the public sector to the private sector. At the same time governments were also preparing for some of the larger privatisation projects involving utilities that had been the subject to significant compensation claims for negligence.

While these requirements are unlikely to completely explain the significant increase in policies issued it does coincide with the general increased awareness for businesses of these risks and the outsourcing of a wide variety of government services.

3.2.5 Claims experience

Figure 3.4 shows the number of settlements and average settlement size derived from the selected insurers that provided complete data from 1993. The past settlement amounts have been indexed to current values based on the average weekly earnings (AWE) index. The experience shows the data by calendar year and shows the general trend in settlements since 1995.

Figure 3.4 Settlement experience for professional indemnity selected insurers



Although the average claim size is volatile there does not appear to be any discernible upward trend in settlement cost.

3.2.6 Settlement costs

By its nature extensive recourse to legal representation is required by both the defendant and the plaintiff. If the defence is successful legal costs may account for the total cost of the claim to the insurer and, for more complex cases, can be substantial. If unsuccessful then, apart from legal costs the insurer also pays the compensation either by court award or through negotiation. Once again legal costs can be substantial. Each case differs, however, it is expected that legal costs account for approximatley 40 per cent of the total cost of claims.

3.2.7 Large claims

The extreme volatility in the cost of claims and unpredictability of professional indemnity is evident in the variation seen in the average settlement size. The average cost of claims settled in 1997 is over three times the average of the other years and is the result of a few substantial settlements made in that year.

Early indications are that, based on around 1500 settlements, the average claim size for the 2002 year is $17 400. This is the same, in real terms, as the experience for 2001.

The average claim size for 1997 is significantly impacted by the settlement of three large claims from one particular insurer. If these three claims (which relate to unconnected legal advice) are excluded the average falls from $47 000 to $26 000 (indexed). If the next two highest claims (relating to accounting and insurance advice) are excluded from the same insurer the average falls to $21 000. Although the exclusion of a few claims reduces the average considerably the year still stands out as a particularly high year for claims.

3.2.8 Provisions

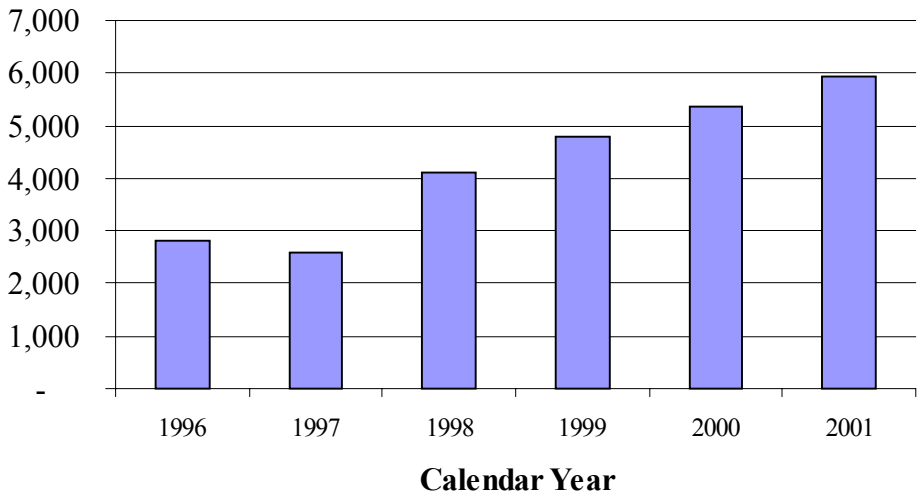
Consideration of settlements alone disregards the fact that insurers hold significant reserves for open claims (claims in various stages of a generally lengthy settlement process).

Provisions for existing insurers, according to APRA's industry statistics, have increased almost 30 per cent to $1000 million in 2001. This increase is not supported by the average cost of claims. However, it is possible that the pending claims may have increased in number and/or may relate to a few large claims. The later is not unreasonable given significant difficulties experienced by several corporations in recent years.

3.2.9 Lodgments

Figure 3.5 provides a summary of the number of claim lodgments from 1996 to 2001. As with settlements there has been a upward trend. The data is also by calendar year. Although there still remains a delay between year of lodgment and accident year the delay is much shorter than with settlements.

Figure 3.5 Number of lodgments for professional indemnity selected insurers



The average annual increase in number of claims lodgments from 1996 to 2001 is 16 per cent per annum. This increase reflects the strong growth in one of the selected insurers. Adjusting for the large growth in that portfolio suggests that claim lodgments are increasing at around 3 per cent per annum.

3.2.10 Insurers' comments on data and experience

Due to the relative small size of some insurers' professional indemnity portfolios there was considerable volatility for individual insurers' claims experience. Hence the impact of relatively small changes to portfolios or the occasional large claim tended to have a significant impact on an individual insurer's experience.

As some insurers pointed out the data as to payments and numbers finalised may not directly correspond because some settlements are made over a number of years (due to part payments) or a claim may receive a settlement but the file remains open for legal expenses or recoveries.

Where insurers' experience showed an increase in average claim size the reason usually included the existence of one or two large claims or where the insurer initiated a change in their process or portfolio, for example, an insurer deciding not to write large multinational accounts after a certain date.

One insurer commented that they had experienced an increase in the average cost on the claims settled in the band up to $100 000. The insurer also attributed some of the increase, particularly on the large claims, to the impact of court rulings.

3.3 Public liability: costs and performance

This section describes the review undertaken into the costs and performance of public liability insurance. Analysis is based on the returns provided by the selected insurers and draws on other market commentary and analysis.

Thirteen of the selected insurers wrote this class of insurance. The proportion that the selected insurers' written premium bears to the product and public liability market, as measured by APRA statistics for the year 2001, was 63 per cent.

Property damage represents the greatest volume of claims (75 per cent[17]) but a considerably small part (35 per cent) of the total cost. In this review we consider public liability in aggregate but most of the observations relate to bodily injury given the relative stability of costs relating to property damage.

3.3.1 Classification of public and product liability

When rating public and product liability insurers will typically classify risk according to broad industry classifications as this will influence the frequency of claims and the types of claims raised. Other factors that tend to influence risk exposure and hence the affect the rating include:

- Policy limits (the higher the policy limit the greater the potential loss)
- Turnover (bands for broad rating classes)
- Employment (contract labour or direct employment).

Additional factors may be used depending on the nature of the business.

A critical factor that has contributed to the current lack, and high price, of cover available to certain small business operators and community/volunteer organisations is that these organisations are considered by insurers to be 'high risk'. The issue is that the premium that is affordable to these enterprises is small when compared with the potential cost of claims involved against the cover offered. The low premiums provide limited ability for the insurer to generate a sufficiently large enough premium pool to cover potentially large pay-outs and hence the insurer stands to incur significant losses in excess of the total pooled premium collected.

Understandably it is difficult for policyholders to understand the disparity between a single enterprise's low claims frequency and the high cost of its insurance. It needs to be noted that around 85 to 95 per cent of policyholders can expect their public liability insurance premium to be higher than their cost of claims. However, a few policyholders will appreciate the value of the insurance premium following a successful multi-million

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[17] Trowbridge: Public Liability Insurance—Analysis for Meeting of Ministers, 27 March 2002.

dollar claim against them. Insurers need to collect sufficient premium in order to pay such claims by effectively spreading the cost across all policyholders.

While action taken by governments to limit the number or size of awards may reduce the overall cost of claims, the majority of policyholders can still expect their public liability insurance premiums to be higher than their cost of claims. It is the risk of liability for large but infrequent losses, which may only occur once in twenty or more years, that is being insured.

3.3.2 Cost drivers

As reported in the March 2002 review, key drivers of premium for public liability were considered to be:

- **Community—**increased litigiousness of the general public and heightened awareness of common law rights (this is consistent with observations made about increasing costs in other liability classes).

- **Court awards—**increased court awards.

- **Legal—**several observations were made about the impact of increased legal activity as a result of:

  - contingency fees

  - touting for business (the link between advertising and growth in claim numbers is less clear although some delay after the time advertising was first allowed, which effectively occurred in the early 1990s, would be expected)

  - attention of law firms (particularly when access to common law was removed from Victorian workers compensation legislation in late 1997)

  - increase in prevalence of representative (class) actions

  - general increase in legal costs.

- **Labour market**—traditionally, workplace injuries were compensated through statutory workers compensation benefits (employer's liability). During the 1990s out-sourcing tended to replace permanent employees with contract labour. This is now considered to be one of the drivers of the increase in the numbers of policies.

- **Insurance market**—decreased capacity (consolidation in the local and international market of direct writers, reinsurers and brokers has caused lack of depth in the market and the ability for stockholders to demand higher returns for the risk carried).

These reasons continue to be stated as the main drivers of cost. However, limited information has been presented to sufficiently support or refute these contentions. The link between the advertising of legal services and increases in unmeritorious claims has

not yet been established. The actual cause of the increase is of limited concern to insurers as their objective is to charge a premium that provides an adequate return. Insurers' attention to date, and hence the information that they have collected, has been to ensure that they correctly quantify the underlying claims cost for inclusion in the pricing process rather than develop an understanding of the cost drivers and track how they progress.

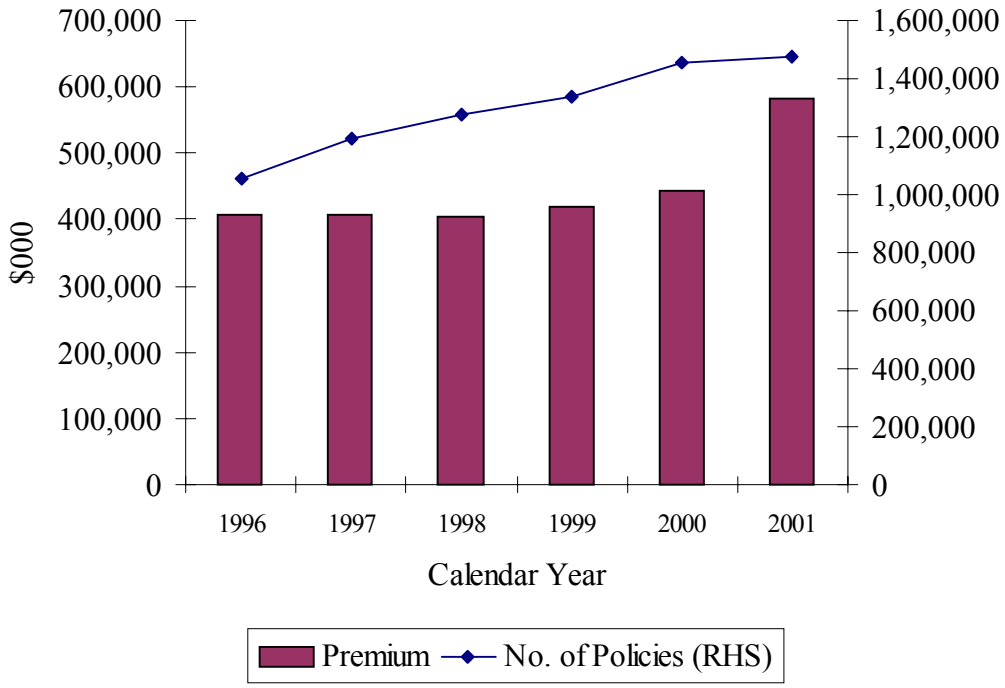
It has also been suggested that the recent APRA reforms have also contributed to insurers increasing premiums. Discussion on this issue with insurers has prompted a wide range of views. The larger well-capitalised insurers indicated that the APRA reforms had little impact on their pricing decision as their capital base already well exceeded the minimum specified in the new prudential standards. Smaller insurers were considered to experience the greatest impact of APRA's new prudential standards. The servicing of additional capital raised to meet the new standards, with sufficient excess to ensure a reasonable margin is maintained over the minimum, has placed pressure on these insurers to increase premiums.

One flow-on effect from these reforms was a stronger emphasis on internal capital management and allocation to classes by insurers. Effectively, lines of business needed to 'bid' internally for the available capital. Consequently, this will tend to disadvantage those lines with high capital requirements, more volatile results, and/or lower profitability. Typically, these are the liability classes such as public liability.

3.3.3 Policy numbers and premium changes

As seen in section 2.7.7 this class has experienced average renewal premium increases of 15 per cent and 22 per cent over the last two years. Figure 3.6 illustrates the growth in premium income and number of policies for the selected insurers that provided complete data from 1996.

Figure 3.6 Written premium income (indexed) and policy count selected insurers



The indexed written premium for the public and product liability class exhibits a similar pattern to the professional indemnity class with relatively flat volume of premium income in real terms except for the year 2001 where the increase was 22 per cent.

The number of policies also steadily increased during the period, exhibiting an average increase of about 7 per cent per annum over the five-year period. As observed in the section on professional indemnity this increase in the number of policies followed the introduction by various government public requirements for contractors to demonstrate adequate levels of both professional indemnity and public liability insurance cover. It is not surprising that total premiums did not increase at the same rate as the issuance of policies as it is expected that the new policy covers would be for the smaller enterprises and consultancies and, hence, the average premium would decrease. However, the lack of any real growth in premiums before 1999 suggests that rates were significantly discounted in that period.

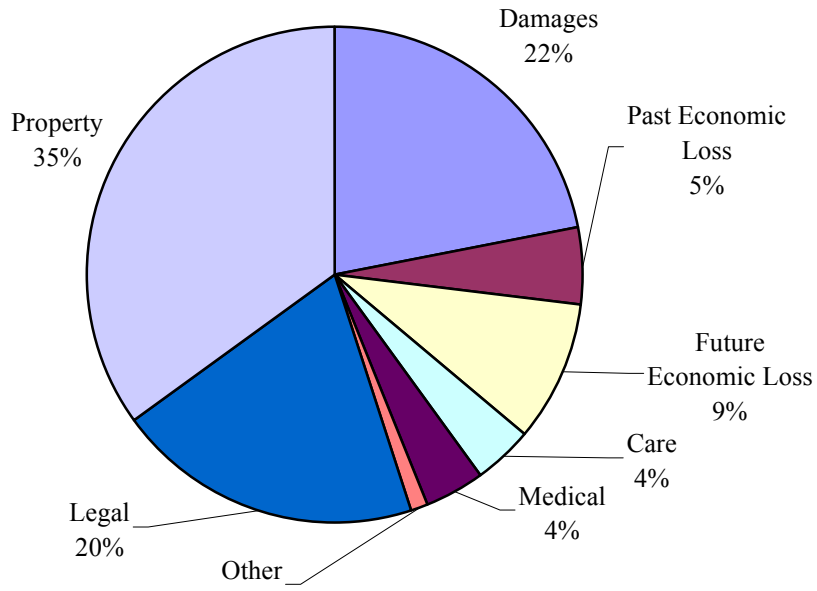
3.3.4 Components of cost

Premiums charged by insurers can be allocated to various broad categories of cost. Figures supplied to APRA are based on premium revenue. This excludes stamp duty and GST in accordance with the accounting treatment of premiums. These issues were discussed in the March 2000 review. APRA's selected industry statistics as at 31 December 2001 indicates that the cost of claims increased from around 70 per cent in the early 1990s to over 100 per cent.

A desirable target loss ratio for this business for insurers would range from 60 per cent to 70 per cent of gross premium depending on the method of distribution. Underwriting expenses of around 35 per cent to 40 per cent (including commission of around 15 per cent and a profit margin of up to 10 per cent) suggests a combined ratio in the range of 95 per cent to 110 per cent. As discussed in section 2.2.4, a combined ratio in excess of 100 per cent is sustainable as insurance profit is supported by investment earnings on (relatively high) technical reserves. As reported by APRA, underwriting expenses have been quite volatile. Expenses as a proportion of gross premium revenue increased from 23 per cent in 1998 to 29 per cent in 1998 and reduced back to 23 per cent in 2001. The recent decrease in the expense ratio reflects the large increase in premiums. In dollar terms expenses have increase by 3 per cent per annum since 1996 and therefore do not appear to be a significant contributor to recent premium increases.

The remaining key driver of cost is the actual cost of claims. Although the components of costs vary depending on the circumstances of each claim a breakdown of the cost of claims across the whole the industry is illustrated in figure 3.7.

Figure 3.7 Cost of claims



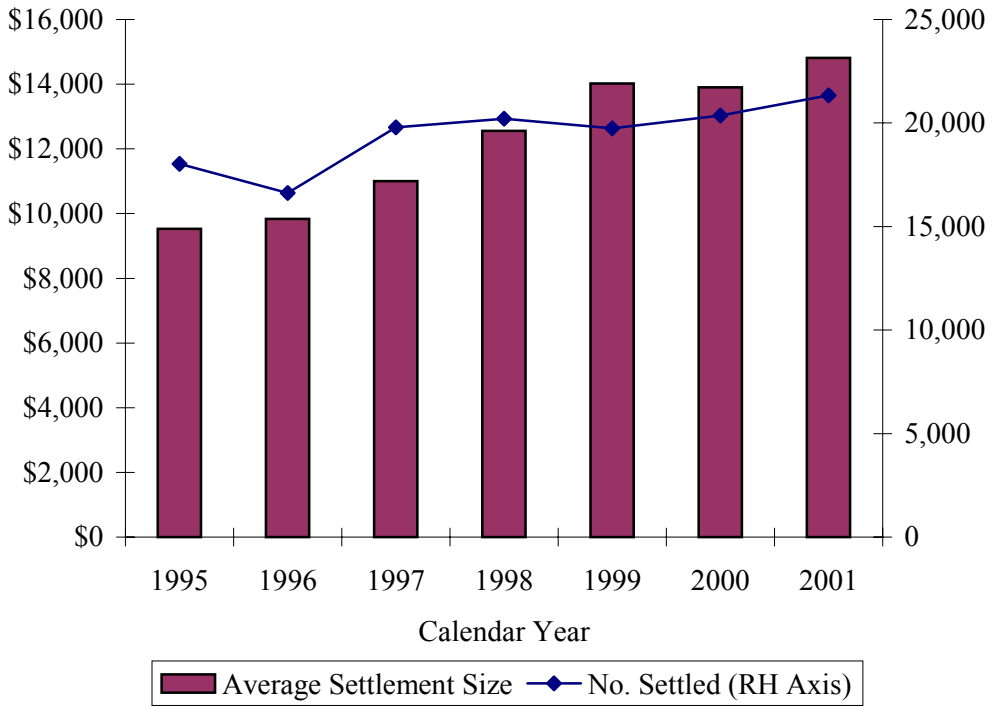
As discussed in the Trowbridge report, property claims have remained relatively stable and observed increases in the cost of claims relate to personal injury claims.

For personal injury claims, the picture differs according to the nature of the claim. Larger claims are dominated by future medical and future economic loss while smaller claims have a far greater proportion associated with general damages.

3.3.5 Claims experience

Figure 3.8 shows the number of settlements and average settlement size derived from the sample of insurers that provided complete data from 1995. The past settlement amounts have been indexed to current values based on the AWE index. The experience shows the data by calendar year, providing a general trend in settlements since 1993.

Figure 3.8 Settlement experience for product and public and liability selected insurers



Given the average settlement size has already been indexed to current values based on the AWE index, there still remains considerable inflation of the settlement amounts over the period, in the order of 8 per cent per annum over the period 1995 to 2001. Most of the observed increase relates to the period from 1996 to 1999 during which time the average cost of claims increased at 12.6 per cent per annum.

The average time to settlement after the date of the incident is around 3 years. Therefore, although the higher cost of claims became evident in 1997, these increases would have affected the profitability of business written in 1994 (unless insurers had already anticipated such increases).

Early indications are that, based on around 9000 settlements, the average claim size for the year 2002 is $15 300. This represents an increase, in real terms, of 3 per cent over that experienced for 2001.

The number of claims has also generally trended upwards over the period, averaging about 3 per cent per annum from 1995 to 2001 although this is significantly below the rate at which policy numbers have been increasing. Although it is difficult to analyse, examination of available information on court awards suggests that the breadth of

damages has increased as have the level of those awards, particularly for care and future medical expenses. These increases appear to be as a consequence of the general recognition of the true cost of care requirements for severely injured claimants.

Examination of a limited sample of smaller claims suggests that awards for general damages have increased on average at around 7 per cent per annum.

The sample also revealed little change in plaintiff legal costs as a proportion of total claims cost. Over the years 1996 to 2002, plaintiff legal costs were largely in the range of 20 per cent to 30 per cent of the total settlement with an overall average of 23 per cent. On a case-by-case basis legal costs as a proportion of the settlement varied significantly. Costs lower than 20 per cent were common as were costs in excess of 30 per cent.

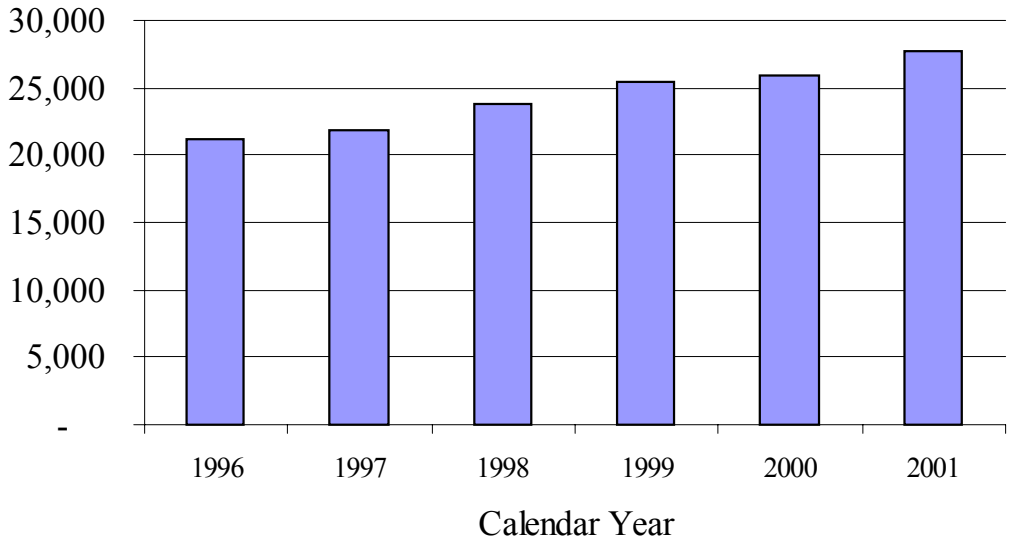
The observations above indicate that the observed increase in the average cost of claims cannot be attributed to any specific cause. Rather each of the components—general damages, care, future medical, legal, etc. are each contributing to the general increase in costs.

The increasing number of claims and the increasing claim size were features discussed in the Trowbridge consulting report to the meeting of ministers on 27 March 2002. The increasing average settlement cost from 1997 to 1999 also corresponds to a significant reduction in the return on capital for this class as shown in figure 2.16.

3.3.6 Lodgments

Figure 3.8 provides a summary of the number of claim lodgments from 1996 to 2001. As with settlements there has been a general upward trend. The data is also by calendar year. Although there still remains a delay between year of lodgment and accident year the delay is much shorter than with settlements.

Figure 3.8 Number of lodgments for public and product liability selected insurers



As with claims settlements the number of lodgements has been increasing over the period by around 6 per cent per annum. Although these claim numbers are not directly related to the number of policies, it is evident that the class is not experiencing a significant increase in claim frequency.

However, written premium income, which for this class was relatively flat for the years 1996 to 2000, did not keep pace with the apparent increase in risk exposure. The impact of both the number of claims, which increased by 6 per cent per annum, and the average claim size, which increased by 8 per cent more than AWE inflation, would significantly impact the ability of this class to provide a reasonable return on capital given the premium income was relatively static.

3.3.7 Insurers' comments on data and experience

For the selected insurers this portfolio class was considerably larger than the professional indemnity portfolio. Further, the claims experience was very similar across a number of insurers with average claims costs increasing by around 8 per cent over and above inflation over past years.

The increasing claims costs was commented on by most insurers to be related to a number of factors which are as follows:

- increased level of litigation
- increased level of court awards and legal costs

- increased awareness in the community as to their rights resulting in higher numbers of claims

- higher proportion of personal injury claims compared to property claims with personal injury claims generally being of a higher value

- cost of treatments have increased leading to higher claims costs

- change in policy terms, e.g. higher deductibles leading to removing the smaller claims from the data and increasing average claim size of those claims remaining.

These comments are similar to the comments made in the Trowbridge report to the ministers and consistent with the cost drivers identified in the March 2002 review. Further discussion of this issue is provided in section 3.4.3.

3.4 Public liability and professional indemnity insurance: availability and demand

This section considers the issues relating to the availability of, and the demand for, public liability and professional indemnity insurance services.

3.4.1 Public liability insurance

There is a widespread perception of a public liability insurance 'crisis' in Australia taking the form of substantial increases in public liability insurance premiums. As noted, premium increases of an average of 22 per cent have occurred in the period June 2001 to May 2002 for the combined public and product liability insurance category but this figure is not reflective of the premiums rises faced by many insureds. Some of these premiums are considered to be unaffordable for many small businesses, not-for-profits (NFPs) and local councils, and in some instance insurance is not available. Examples of this include:

- 2 per cent of businesses experienced increases in their public liability insurance premiums of more than 500 per cent; 9 per cent experienced premium increases of between 200 and 500 per cent; 12 per cent experienced increases of between 100 and 200 per cent; 29 per cent experienced increases of between 50 and 100 per cent and 36 per cent experienced increases below 50 per cent[18]

- 14 per cent of Queensland community groups in a recent survey were not able to afford their new and higher public liability insurance premiums. Some community groups were facing public liability insurance premium increases of up to 800 to 1000 per cent[19]

- small businesses in specific categories[20] have faced premium increases often in the range of between 100 per cent to 500 per cent, with average increases in public liability premiums of around 80 per cent over the last three years experienced by small businesses in all industries.[21] Another survey found that outdoor recreation organisations were experiencing premium increases of 40 per cent to 900 per cent[22]

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18 State Chamber of Commerce (NSW) and NRMA Insurance survey, May 2002.

19 800 per cent figure from the Queensland Law Society submission to the Senate Economics References Committee 'Enquiry into the impact of public liability and professional indemnity insurance cost increases' (the Senate inquiry); other data from 'Our Community', submission to the Senate inquiry, p. 3, based on a survey of community groups which received over 1000 responses.

20 Such as those involved with outdoor recreation or adventure tourism activities.

21 p. 4 of Ministry of Small Business and Tourism submission to Senate inquiry.

22 Queensland Outdoor Recreation Federation survey, cited in Ministry of Small Business and Tourism submission to the Senate inquiry.

- in other cases there has been no capacity in the industry to meet demand. For instance, the Equestrian Federation of Australia reports that in March 2002, the two companies willing to provide public liability insurance in Australia to equestrian sports—SLE Worldwide and Triton—advised that they would not be underwriting any horse sports in Australia at the expiry of existing policies.[23] At the time of writing, the Equestrian Federation of Australia was still unable to secure insurance beyond 30 September 2002 despite using a broker on their behalf.

In addition, it has been observed that in the case of many policyholders, these premium rises have not been reflective of previous claims experience. For example:

- 'Our Community' found that, despite very high rises in insurance rates, 96 per cent of the community groups responding to its survey had not made a claim on their public liability insurance in 5 years, while actual claims made amounted to less than 5 per cent of the total premiums paid in a year.

- The Ponyland Equestrian Centre, despite having never made a claim, was advised in June 2001 that its premium for the 2001–02 financial year would increase to $21 395 from the previous $5200, and the policy would then be terminated.

- A provider of outdoor education programs faced closure when its public liability premium increased by 600 per cent although it had never made a claim for insurance in its 7 years of operation.[24]

Changes such as these seemingly appear unreasonable. However, as noted in section 3.3.1, it is difficult for an individual to make the link between their apparent low claims frequency and high cost of insurance, as most organisations can expect their public liability insurance premium to be higher than their cost of claims. Indeed, premiums will alter according to the grouped claims experience of similar organisations.

One way of distinguishing the market's reaction to unexpected falls in the adequacy of firms' capital provisions for risk[25] from more unlikely difficulties such as adverse selection problems is to examine insurance profits in the period immediately after the crisis unfolds. Rapid increases in profits and an inflow of new capital into the market would suggest the current crisis is the result of rather severe reductions in capital. In that case, the market is likely to be capable of managing the required adjustment process, even if in the short term this is manifested in a reduced capacity and sharp increase in premiums for certain risks and thereby impacting adversely on insureds as has been discussed above. However, if profit and capital inflows are not observed, then some variation on adverse selection may have played an additional role in the crisis (see section

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[23] Equestrian Federation of Australia, submission to the Senate inquiry, p. 1.

[24] Office of Small Business submission to the Senate inquiry, May 2002 at p. 6.

[25] Ideally the measure for this should be the ratio of the expected value of capital available to meet claims to the expected value of future claims.

3.5.1). For a definitive conclusion on this to be reached, a longer observation period is needed.

Not surprisingly, appropriate policy responses depend crucially on the cause of the problem. If a capital market adjustment process is all that is occurring, then at most short-run support of NFPs and small businesses, perhaps coupled with other policies that might reduce insurers' costs, may be sufficient. In contrast, an adverse selection spiral may call for more long-term, but for that reason, much more carefully considered intervention. For example, adverse selection will be aggravated to the extent that actual policies are mis-matched to risks. The past claims to premium data outlined above might suggest such a mismatch. If this were established for NFPs and small businesses, then opportunities to improve data availability and segregation of the insured into narrower categories through pooling schemes may assist future premium setting decisions. Alternatively (and again putting capital market adjustment issues aside), if the risks associated with these groups really has increased so substantially as to make commercially viable insurance unaffordable in the long run, there might be a case for limiting liability (thereby lowering potential pay-outs) or even subsidising the affected areas, perhaps because they are deemed to make valuable contributions to society over and above their economic valuation. Section 3.6 provides more detailed discussion on proposed solutions.

3.4.2 Professional indemnity insurance

This section considers the issues relating to the availability of, and the demand for, professional indemnity insurance services.

The great majority of professionals operating in Australia take out professional indemnity insurance. According to the Australian Council of Professions (ACP), there are no aggregate figures available, but examples from select groups are indicative.[26]

- Professional indemnity insurance is mandatory for chartered accountants in public practice, for architects and for engineers. Some states have legislative requirements.
- The Australian Dental Association (ADA) estimates that virtually 100 per cent of their members have professional indemnity insurance.
- Over 90 per cent of pharmacists hold their own professional indemnity insurance.
- Eighty-five per cent of engineers had carried professional indemnity insurance at some time in the last five financial years.[27]

As has been the case with public liability, professional indemnity insurance premiums have increased substantially and there has also been a 'drying up' of supply. The number of underwriters in the professional indemnity insurance market supplying the financial

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[26] Australian Council of Professions submission to the Senate inquiry, May 2002.

[27] The ACP cites a survey by the Institute of Engineers Australia.

planning industry has dropped from twenty-three in 2000–01 to eight, but only four of which are currently writing for financial planning businesses.[28] The insurers currently offering professional indemnity cover to its members are predominantly Lloyds-based, with Dexta and ACE being the only non-Lloyds' facilities.[29] Part of this drying up of supply of professional indemnity can be attributed to the fact that before March 2001, HIH carried the majority share of the non-medical professional indemnity insurance in Australia.[30]

The Institution of Engineers, Australia reported to the Senate in its submission that some of its members have experienced 'refusal by insurance companies to offer professional indemnity insurance coverage for certain practice areas'.[31] The Real Estate Institute of Australia reported that 'most underwriters now either entirely exclude bodily injury/property damage claims or severely curtail it from real estate agents professional indemnity insurance'.[32] The Institute of Chartered Accountants in Australia reports that 'feedback from members suggests that up to 90 per cent of a firm's activity could be uninsured because it falls under one or another exclusion clause contained in the insurance contract'.[33] In July 2001 professional indemnity insurance for midwives was completely withdrawn. According to the Australian Property Institute (API), almost all property valuers were able to obtain cover before 1999 but as of January 2001 about 5 per cent were denied cover due to claims, and since then this has grown to about 10 to 15 per cent.[34] Similarly, the number of underwriters in the professional indemnity insurance market for accountants has shrunk from 16 in 2000 to 2 in April 2002.[35]

According to one survey, professional indemnity premiums were expected to rise 25 per cent in the year to June 2002, following increases of 12 per cent and 23 per cent in the two previous years.[36] In the March 2002 review, it was forecast that, based on the assessment of the profitability of the class at that time, premium increases might exceed 20 per cent. Premiums actually increased, on average in 2001–02 by 24 per cent. According to the ACP, professional indemnity premiums have risen by between 20 and more than 200 per cent in recent years.

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28 See p. 3 of the Financial Planning Association's submission to Senate inquiry.

29 Australian Property Institute submission to the Senate inquiry, p. 2.

30 ACCC, *Insurance industry market pricing review*, March 2002, p. 102.

31 The Institution of Engineers, Australia's submission to the Senate inquiry, p. 1.

32 Real Estate Institute of Australia's submission to the Senate inquiry, p. 3.

33 Institute of Chartered Accountants' submission to the Senate inquiry, p. 7.

34 API submission to Senate inquiry, p. 3.

35 Australian Society of Certified Practicing Accountants (ASCPA) submission to Senate inquiry, p. 3.

36 JP Morgan/Trowbridge/Deloitte Touche Tohmatsu General Insurance Survey interim survey results for 2002.

Table 3.2 below summarises more specific examples provided by the ACP in its submission to the Senate Economics Committee:

Table 3.2

Profession/industry	**% Increase over 2000–01 (unless otherwise stated)**
Architects	30–60
Engineers	30–60
Interior designers	20–35
Landscape architects	20–35
Management consultants	20–50
Project and construction managers	25–35
Quantity surveyors	30–45
Real estate agents	50–150
Town planners	30–45
Valuers	50–150
Dentists (NSW)	80 (in 2002)
Metallurgists	53 (from 1996–97 to 2000–01)

Other data is provided by the Victorian Employers' Chamber of Commerce and Industry which surveyed Victorian businesses on indemnity premiums. It found that the average increase (mean value) across all businesses was 80 per cent.[37] The largest average increases in professional indemnity insurance premiums by the industry sector were reported in the finance, property and business services (174 per cent), transport and storage (133 per cent) and wholesale and retail trade (92 per cent) sectors. Furthermore, about 30 per cent of businesses reported having difficulties renewing their policy.

As was the case with public liability, there is also a sharp contrast between the premium rises faced by some users and their actual claims experience:

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[37] VECCI submission to Senate inquiry, p. 5.

- One hospital experienced an increase in its annual premium for professional indemnity insurance of more than 780 per cent despite the hospital not lodging a claim for over four years.[38] Furthermore, 'no relationship was found between claims history and the size of increases in premiums and/or excesses'.[39]

- Steady premium increases over the years 1996–97 to 2000–01 (average of 9 per cent annually) among member businesses surveyed by the Institution of Engineers did not reflect an increase in the proportion of those insured who made a claim or in the average number of claims being made. Only 5–7 per cent of members surveyed made a claim on their professional indemnity insurance in any one year.[40]

This is consistent with the observation made above that many organisations can expect premiums to change as a result of the overall claims experience of an industry group which often has little correlation to their own experience.

3.4.3 Experiences on the insurer side

On the insurer side, it has been argued that claims rates, amounts and costs have increased while this is consistent with the capital-adjustment hypothesis, industry capital stocks have fallen.

The Medical Indemnity Protection Society (MIPS) states in its submission that the number of claims reported per thousand doctors per year roughly doubled between 1980 and 1990 and roughly doubled again between 1990 and 2000 with percentage of claims settled with a payment going up from 50 per cent to 60 per cent.[41] Litigation costs (expressed as a per claim average) almost trebled over the same twenty-year period because of both higher process costs (legal fees, medical expert report costs, etc.) and higher awards and settlements. For instance, MIPS instigated an actuarial review of its policies in 1999 which led it to move to a position of genuine full funding, that is, ensuring sufficient reserves to provide fully for the recent upsurge in claims it faced. SLE Worldwide and Triton's decision to not renew existing policies for equestrian sports was explained by an increase in the world-wide incidence of coaches being sued and the cost of claims increasing in recent years, as well as by instructions from their London-based principals.[42]

However, not all of the available evidence supports increased costs. For example:

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38 The Australian Private Hospitals Association submission to the Senate inquiry, p. 3.

39 ibid.

40 Institution of Engineers submission to Senate inquiry, p. 1. Note, settlement size, which also impacts on the liability exposure of an insurer, is not discussed.

41 MIPS submission to Senate inquiry, p. 1.

42 Equestrian Federation of Australia, submission to the Senate inquiry, p. 1.

- there was a reduction in court delays in NSW from 6 years to 2.9 years over the last decade. This would have both lowered insurers' on-going costs (through lower court costs) and led to a short-term exaggeration of the number of claims being experienced (as the queue of pending cases is shortened)[43]

- there has been an average annual decrease of 4 per cent in the number of lodgments received by courts throughout Australia since 1997–98[44]

- while in High Court decisions in personal injury matters from 1987 to 2000, claimants won in four out of every five personal injury cases in 1987, by 2000, defendants won five out of every six such cases.[45]

Further, rises in insurance premiums can be exaggerated due to growth in service usage. For example, medical service usage has been increasing by around two per cent per annum, so premiums cover an increasing amount of services.[46]

With respect to capital, a number of separate issues have coincided that has acted to reduce the level of capital available to insurers. These include the liquidation of HIH, poor investment returns (premiums are invested to provide for future pay-outs) and under-pricing.

Investment strategies form a crucial part of the 'risk management' role played by insurance firms. Recent premium rises were preceded by record negative double-digit percentage returns in all major international equity markets in the last financial year. For example, the Victorian Transport Accident Commission recorded its first ever loss in 2001 due entirely to this downturn.[47] The Australian Prudential Regulation Authority (APRA) believes that:[48]

> Now that the five or so years of price-cutting in the late nineties to gain market share have ended, and investment returns (commonly used to offset underwriting losses) have plateaued, premium rates have been necessarily rising to restore product line profitability and underpin company solvency.

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43 APLA submission, p. 14.

44 Productivity Commission study, *Report on Government Services 2001*, cited in The Law Council of Australia (LCA), submission to the Senate inquiry, p. 9.

45 LCA submission, pp. 26–27, citing Professor Harold Luntz of the University of Melbourne.

46 APLA submission, p. 17.

47 APLA submission, p. 11.

48 APRA submission, p. 2.

In addition, HIH, a large insurance company in what is a competitive market, may have aggressively bid down insurance premiums to unsustainably low levels. For competitive reasons other insurance companies may have followed, lowering the capital adequacy of each.[49]

If these are the common experiences shared by insurers, and the bulk of opinions suggests this to be so, then the net effect will be more rigorous profit targets being set within the industry. As a consequence, premiums will rise and insurers will tend to withdraw from participation in the riskier classes of insurance. Section 3.5 elaborates on why public liability and professional indemnity may take the brunt of such a reappraisal of strategies.

3.5 An economic analysis of problems that occur in public liability and professional indemnity insurance markets

This section outlines a range of issues that potentially create difficulties in the provision of public liability and professional indemnity insurance and may explain the observations discussed in sections 3.2 and 3.3. Particular attention is paid to not-forprofits (NFPs) and small businesses.

The potential problems to be discussed are as follows:

- moral hazard on the part of the insured and adverse selection with particular application to the difficulties of risk management faced by public liability insurers
- 'fat' and 'long tails' in the distribution of claims and long delays
- moral hazard caused by competition between insurance companies
- capital market imperfections and insurance
- tort law case loads and pay-outs.

Proposals made by various industry participants to deal with these problems are also surveyed and their costs and benefits are evaluated. A more fundamental but technically oriented introduction to the economics of insurance markets is provided in appendix D, including an explanation of the existence of insurance firms and discussions of what moral hazard and adverse selection are, how they arise and how insurance markets deal with these.

3.5.1 Moral hazard and adverse selection

Moral hazard and adverse selection are well-known issues in the insurance market. Moral hazard arises because the incentive of insured parties, as opposed to uninsured parties, to

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[49] This possibility is discussed in below in section 3.5.3.

avoid 'accidents' is reduced. Adverse selection occurs when the insured know more about their own risks, which vary across individuals, than the insurer. As a result, premiums that cover average risks may lead some low risk parties to self-insure raising the average risk of the insured group and the necessary premiums. Such a process potentially could result in too little insurance being supplied.

Appendix D discusses these issues in more detail, in particular, highlighting how insurance firms specialise in minimising these problems. This alone suggests that moral hazard and adverse selection are not central to the difficulties currently faced by the insurance industry. Further, as discussed in subsequent sections, broad industry developments are consistent with other explanations and inconsistent with adverse selection.

Despite this, it is possible that NFPs and small businesses are more susceptible than other entities to problems of moral hazard and adverse selection.

NFPs are often financially quite marginal concerns, notwithstanding the provision of free or subsidised labour. They may not have the level of financial resources or economies of scale needed to provide for substantial safety and risk management compared to other organisational forms like profit making firms. NFPs often rely on volunteer or low-paid labour[50] without the necessary training for the broad range of tasks they undertake.[51] Moreover, volunteers can seek damages for accidents that occur in the NFPs 'workplace'.

Small businesses, while technically for-profit concerns, may also face similar constraints. A high percentage of small businesses fail within one year of starting operations, and it is not uncommon that owners receive substantially less in financial rewards than they would elsewhere, making their labour to some degree voluntary. Certainly a proportion of small businesses may not have the ability that larger firms have to meet fixed costs associated with safety and risk management.

These characteristics increase the possibility of moral hazard, though there are countervailing forces also at work. For example:

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[50] 'A … distinguishing feature of non-profits is that they involve some degree of voluntary commitment of time. Most non-profits rely entirely on work performed without pay by their members or supporters. Others employ people to provide their services and manage them, but even these use volunteer labour to some degree, even if it is only the time committed by their unpaid governors or directors.' See <http://www.abs.gov.au/ausstats/abs@.nsf/0/5EBE1496169C5D31CA2569DE002842B6?Open&Highlight=0,non-profit>. The number of volunteers has also risen considerably. The estimated number of volunteers aged 18 years and over in 2000 was 4 395 600, representing 32 per cent of the civilian population of the same age. This represents an increase since 1995, when the estimated 3 189 400 volunteers represented 24 per cent of the population. See <http://www.philanthropy.org.au/factsheets/7-05-06-volunt.htm>.

[51] These observations should not be viewed as criticism of the thousands of people who volunteer for NFPs bringing great benefits to their communities and Australia as a whole. They are merely recognition of the difficult circumstances such individuals work under.

- NFPs and their volunteers are typically concerned with increasing public welfare and may well hold themselves to a higher standard than operations motivated primarily by profit.

- Small businesses are often tightly held and operated, by a small group of related individuals (often with family ties). As a result, liability claims and/or failure of the business may have a more direct impact on those running the business than is the case with employees of larger firms, both in terms of reputation and financially.

The nature of NFPs and small businesses may also make issues of adverse selection somewhat more likely. NFPs and small businesses are arguably quite diverse in the degree of risk they carry, even across very similar organisations or the same organisation over time. This may make it difficult to identify the risks of a particular organisation and in turn is likely to lead to good and bad risk operations being lumped together.[52] Two examples of risk diversity illustrate the point:

1. One pony club may differ from another because of sharp differences in the volunteer staff or participating members. But it is not easy to monitor the quality of effort of volunteers and staff, or the degree of risk-taking inherent in a local membership. For example, the risk profile of horse sports varies between Pony Clubs which focus on entry level training and competition versus trail riding and private riding schools which typically have a much higher incidence of claims.[53]

2. Even within a particular NFP or small business, risks may vary over time. For example, turnover of volunteers and employees may be high. When a particularly skilled and devoted volunteer leaves a local pony club, the risks associated with that club could rise significantly, but this change in risk may be difficult to monitor, in part because the systems for maintaining continuity and reporting systems may be minimal.

Moreover, the amount of insurance business generated by a typical NFP or small business is generally small, making it less likely that the investment of extensive resources in distinguishing different risks of individual operations will be financial. Combining these two factors—on the one hand, the high degree of heterogeneity across insurable groups as a whole, and, on the other hand, an inability to economically distinguish among them—could result in a more serious degree of adverse selection process than would be the case with other forms of insurance.

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[52] 'My concerns are that the claims experiences for small voluntary organisations have not been made public and that these minor risks are being lumped in with other more aggressive pursuits that hold much more serious risk factors. In short the small are being exploited by cross subsidy to cover the claims experience of the high risks.' See <http://www.nccnsw.org.au/ncc/projects/NCCBulletins/publiclie.html>.

[53] Equestrian Federation of Australia submission to Senate inquiry, p. 2.

Public liability insurance for NFPs and small businesses have experienced increased premiums (to the point of substantial price exclusion) and reductions in available coverage at any price (including exit by traditional suppliers). Such difficulties may be caused by a range of factors, partly because:

- cost-covering insurance rates in this sector may not be affordable

- of the problems discussed in the following sections, most notably those of moral hazard on the part of insurers (rather than the insured), the winner's curse and particularly capital market imperfections (which do seem as likely explanations for the broader difficulties experienced in the industry)

- of moral hazard and adverse selection (which, outside of NFPs and small businesses, seem less likely explanations of current difficulties).

Not surprisingly, there are different policy implications for all these different sources of difficulties. For example, if cost-covering prices are beyond the reach of a significant proportion of NFPs and small businesses, then intervention is a matter of social policy rather than economic efficiency (but see also subsection 3.6.6 below). However, specific policies aimed at reducing moral hazard and adverse selection issues are discussed in subsections 3.6.3 to 3.6.5.

3.5.2 Fat and long tails in the distribution of claims and long delays

The basic nature of both public liability and professional indemnity risks create difficulties for insurers in making adequate provision for insurance claims and otherwise managing risk. The management of such risks is difficult for two reasons. Public liability and professional indemnity risks may be:

1. 'Fat-tailed' in the sense that the probability of very high pay-out events is large relative to the probability of such events in the case of other insured risks.
2. Some insured risks are considered 'long-tailed' risks in that many years may elapse between the date the incident occurred and the final settlement of the claim.

Indeed, of all forms of insurance, the risks insured against by public liability and professional indemnity insurance are perhaps most likely to exhibit such characteristics.

In the case of public liability, insurers must be able to cover:

- the potential cost of actions involving liability for activities that may not have been perceived as risks at the time they were incurred

- the potential cost of accidents or findings of liability where the damage is extreme (for example, if a degree of liability was found after a terrorist attack or some other event of catastrophic proportions).

Professional indemnity insurance also carries very large but remote risks that may not be readily 'averaged' over the load of a given insurance company. For instance the economic loss that can be attributed to the provision of bad financial advice by advisers or the possible harm to third parties that may be caused by architectural faults in a building may potentially be very far-reaching with the losses running to millions of dollars. For these very reasons, the risks insured against with professional indemnity insurance are fat-tailed risks—that is, the probability of very high pay-out events is large relative to the probability of such events in the provision of other kinds of insurance. Although typically underwritten on a claims made basis, and hence the insurer is already notified of the incident, professional indemnity, to some degree, is also still considered long-tailed. For example, the extent of the loss in respect of medical indemnity claims already notified may not be fully appreciated for many years and can also be very large.

Fat and long-tailed risks can substantially reduce the capacity of firms to issue profitable insurance policies for at least two reasons:

1. It is difficult to gain accurate actuarial estimates of the risk because the necessary sample size—which can only be found by looking to actual events—must be very large to capture information about the probability of events in the tails of the distribution.
2. Sufficiently fat-tailed risk distributions are uninsurable, so that even if adverse selection did not apply, it would be almost impossible to strike a premium that provided a reasonable level of assurance and was profitable. This occurs if the value of high losses increase more quickly than their probability, though remote, declines. Consequently no average expected pay-out exists. This provides one reason for policy limits in liability policies and also explains why insurers recently excluded terrorism cover.[54]

As a result, the actual liability of an insurer often cannot be judged on the basis of existing data sets unless these are exceptionally large and there is no reason to believe the probability of liability or average pay-out have increased.[55] It may well be that data collected by each individual insurer is simply too small a sample to adequately indicate the nature of the distribution being dealt with. Further, when important elements of risk and damage change, for example, as was likely the case after 11 September 2001, then even very large data sets, being based on historical rather than current evidence, become misleading.

In both kinds of insurance, actual liabilities may not be known for years or even decades after the payment of the premium. The buyer of a one year standard liability insurance

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[54] On infinite moment distributions in insurance, Berger, L and J Cummins 1992, 'Adverse selection and equilibrium in liability insurance markets', *Journal of Risk and Uncertainty* 5: 283-288 and S Klugman 1989, 'Measuring uncertainty in increased limits factors: A Bayesian approach', in *Proceedings of the 21st ASTIN Colloquium,* NY.

[55] In its Senate submission, MIPS argued that one of the reasons the MDOs got into trouble in the 1980s and 1990s was because they did not adequately provide for unreported incidents and because very late reported claims are often the multi-million dollar ones.

policy is covered for accidents caused during the policy year even if losses are not manifested until much later. In addition, both professional indemnity and public liability insurance are subject to changes in tort doctrine that may also affect the legal status of the parties being insured against. Uncertainty arises not only because the cause of damage may not be discovered until quite late, but because the means of resolving the liability questions is also slow and at times uncertain. In addition, the impact of such decisions is magnified since they are ultimately applied retrospectively.[56]

The consequences of these problems would likely be manifested in short-run under-provisioning, either when large risks are realised or when expected pay-outs rise unexpectedly.

3.5.3 Moral hazard by insurance companies, the winner's curse and competition

Harrington and Danzon (1994)[57] consider the cycles of under-pricing of premiums followed by substantial premium rises to recover sufficient reserves that seem to characterise the liability insurance market.[58] They argue that these cycles may be inherent to the insurance market because firms have different internal standards/requirements for solvency or differing amounts of information. For either of these reasons, in markets where insurance capacity exceeds demand, some insurance suppliers may charge below cost (a form of moral hazard). Even if only a small subset of firms do so, competitive pressures may force the others to follow.[59] The result is an eventual shake-out possibly creating a tight market with higher prices.[60]

The 'differing taste for solvency' argument leading to some insurers setting premiums imprudently is not strong, but may well have relevance in Australia. It requires that:

- shareholders face limited liability
- insurers are subject to imperfect prudential oversight[61]

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56 Discussed in R Winter 1991, 'The liability insurance market', *Journal of Economic Perspectives* 5: 115-136 at p. 122.

57 S Harrington and P. Danzon 1994, 'Price cutting in liability insurance markets', *Journal of Business* 67(4): 511-538.

58 See BD Stewart 1984, 'Profit cycles in property liability insurance', in JD Long (ed), *Issues in insurance,* vol 2, PA Malvern M Smith 1989, 'Investment returns and yields to holders of insurance', *Journal of Business* 62 (January): 81-98; JD Cummins and F Outreville 1987, 'Price shocks and capital flows in property-liability insurance', Working paper, University of Penn. Centre for Research on Risk and Insurance.

59 See Harrington and Danzon (1994), at p. 513.

60 Formally, S Harrington and P Danzon (1994) only consider soft markets. See their discussion at p. 513 and especially footnote 5.

61 Not mentioned by Harrington and Danzon (1994).

- consumers are uninformed or unconcerned (perhaps due to risk-insensitive guarantee programs).[62]

Under limited liability and holding the demand of insurance-seekers fixed, the less assets likely to be lost due to bankruptcy, the weaker are an insurer's incentives to cover risks (and hence to price at profitable levels). As a result, firms with lower asset bases will tend to charge lower premiums and competitive pressures may lead other firms to follow suit. While there is nothing about this process which implies the resulting equilibrium will be inefficient, and in particular place firms, and hence the insured, at risk, the possibility cannot be dismissed. Moreover, in circumstances where adverse losses have placed an insurer at risk, it may even increase its expected return by cutting premiums and increasing market share. Counteracting this, pressure leading to inefficiently low prices may be prevented by either effective prudential oversight or by market forces, since informed consumers will avoid companies that are unlikely to be able to meet their obligations.

However, market forces could drive prices to a point where default by insurers is likely if regulation is imperfect and:

- consumers are ignorant of the risks of different insurers

or

- consumers are unconcerned about potential bankruptcies, perhaps because insurance guarantees apply to insurers regardless of the degree of risk which they carry.

The incentive of other firms in the industry to respond to price cutting by a subset is heightened by the fact that the insurers who do not cut prices may stand to lose their investments in policyholder-specific intangible capital, for example the investment in establishing a book of business which includes the cost of attracting and screening a new policyholder.[63] While the degree to which this possibility applies in Australia is difficult to assess, the failure of HIH Insurance suggests the problem may have been real[64], as does pricing data discussed below. HIH controlled 48 per cent of the professional indemnity market (measured as a share of premium revenue) at the end of June 1998, and held a share of nearly 35 per cent at the end of June. At the same points in time, it also controlled respectively 24.2 per cent and 14.6 per cent of the public liability insurance market. In both markets, in 1998, it may have had some capacity to influence price—see

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62 See S Harrington and P Danzon (1994) at pp. 512, 518–520 and 533–535.

63 This loss is also more likely if customers are more responsive to price than to perceived risks of insolvency.

64 HIH controlled 48 per cent of the professional indemnity market (measured as a share of premium revenue) at the end of June 1998, and held a share of nearly 35 per cent at the end of June. At the same time, it also controlled 24.2 per cent and 14.6 per cent of the public liability insurance market. In both markets, in 1998, it may have had some capacity to influence price—see appendix C on HIH.

appendix C on HIH. It may also have been that prudential oversight was imperfect[65], and that insurance purchasers relied on this and hence were either ignorant or unconcerned about the risks attached to a particular firm if it was not properly provisioning for claims.

However, ignorance or unconcern on the part of even some substantial group of insurance purchasers need not result in a dramatic reduction in availability or increased prices. While it is reasonable to assume that the majority of actual and potential insurance purchasers are not fully informed about the riskiness of different insurance firms, a number of consumers are. The presence of informed customers, which typically characterises larger customers may be sufficient to ensure appropriate risk management on the part of the bulk of insurers, since profitable supply may not be possible without being able to attract some of these customers.

Harrington and Danzon's second argument for the possibility of imprudent price cuts is also weak, but is worth consideration. It is based on the 'winner's curse', which arises when bidders, in this case insurance firms, have different information. Thus in setting premiums, a firm that has information that suggests expected losses would be misleadingly low could underbid in setting its premiums and, as a result, win a large share of the market at an unprofitable price. Further, if this happens, other firms may feel competitive pressure to lower their own premiums.

This, however, overstates the case. Rational firms avoid the winner's curse by setting their bids conditional on being the winner. Thus their bid is discounted to allow for the possibility that they happen to have information that is most biased toward optimism. Despite this, such rational behaviour implies a great deal of sophistication on the part of participants. It may be that some firms are not fully aware of the possibility of the winner's curse—even if they are new firms that typically go out of business quickly—or, more likely, that some firms do not have the wherewithal to appropriately discount for it. In any case, if the result of the winner's curse plus the impact of random errors in assessing likely risks is that even a small number of firms underestimate the necessary premiums, it may well be that competitive pressures lead other firms to follow until the market shakes-out.

The moral hazard hypothesis predicts that firms with weak safety incentives will charge low prices and grow more rapidly than other firms. According to Harrington and Danzon, this implies that premium growth will be positively related to forecast revisions (which measures the extent to which an insurer subsequently updates its forecasts of losses for accidents in a particular year) because this reflects demand response to low prices, while being inversely related to prices. The 'winner's curse' hypothesis makes the same predictions but also predicts that forecast revisions will be positively related to measures of poor information such as inexperience.

Harrington and Danzon's cross-sectional analysis of US insurer loss forecast revisions[66] and premium growth is consistent with the moral hazard hypothesis but not the 'winners'

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[65] See, for example, <http://www.hihroyalcom.gov.au/Documents/Submissions/Dean-Clarke-Wolnizer.pdf>.

[66] As defined in the previous paragraph.

curse' hypothesis. It found, among other things, a positive and significant relationship between premium growth and forecast provisions, but did not find any significant relationship between measure of experience and forecast revisions or premium growth. The analysis also found that premium growth and forecast revisions were positively and significantly related to the amount of liability ceded to reinsurers. Harrington and Danzon argue that this suggests that reinsurance was used to conceal lower prices, or more pertinently, used to sustain some degree of underpricing, but it may be rather that reinsurers were unwilling to take on risks at unfinancial rates. The connection with reinsurance is relevant in the current context as a 'drying up' of reinsurance markets following various catastrophes and business failures in 2001 preceded the liability insurance crisis in Australia.[67]

Evidence in table 3.3 suggests there was a period of 'soft' pricing from at least 1997 to 2000 in both public liability and professional indemnity, when premiums were 70 per cent or less of what they were in 1993. That is, prices may have fallen below competitive levels, perhaps due to competitive pressure from an HIH not properly constrained by prudential bounds. Only recently have premiums started to rise. As of June–December 2001, average premium levels had at most reached 90 per cent of real levels in 1993. This data is also supported by specific policyholders. For instance, premiums before 2001 had been maintained at the same levels for a period of approximately six years.[68] Such soft pricing may have occurred in part because of the moral hazard problems discussed above.

Table 3.3: Premium levels adjusted for inflation

Commercial classes	1993	1994	1995	1996	1997	1998	1999	2000	2001	June–Dec 2001
Liability	100	102	97	81	66	61	63	70	80	90
Professional indemnity	100	104	99	86	69	61	61	65	79	85

Source: Australian Plaintiff Lawyers' Association submission to Senate inquiry

3.5.4 Capital market imperfections and insurance

There is an additional peculiarity in insurance supply which may be relevant to both public liability and professional indemnity insurance or at least may have further contributed to and exacerbated problems in these two lines of insurance. An unanticipated loss or increase in expected losses in insurance instantaneously decreases insurance capacity, and this, coupled with capital market imperfections that prevent rapid renewal

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[67] See also appendix B.

[68] ASCPA submission, p. 2.

of capital from equity markets (explained below), means increased liabilities can immediately constrain present and future supply. The result is increased prices and profits while the market adjusts. While this is true of insurance markets in general, because of the ease of shifting internal funds between different insurance markets, in times of constrained capacity those products most vulnerable to changes in overall risk are likely to suffer the most.[69] Public liability and professional indemnity insurance may be such products.

There is at least one source of capital market imperfections that constrain the ability of firms to raise equity: agency costs, most particularly because firm insiders know more about the likelihood of future profits than do potential new suppliers of equity (creating a form of adverse selection among firms seeking equity), and because managers do not always act in the interest of shareholders (leading equity holders to seek additional compensation in return for their funds). As a result, the cost of internal equity to insurers is lower than the cost of raising equity.[70]

This has important consequences for the insurance industry. Capacity in the insurance industry almost exclusively consists of financial capital. At any point in time, existing capacity in the industry is at least temporarily capped since supplying firms ultimately have limited liability and, for the reasons just given, raising additional capital on equity markets is expensive. When pay-outs are made or expected future pay-outs rise, existing capital decreases. Similarly, a systemic change in liability, such as a development in tort law, can overnight sharply reduce the (expected) value of industry-wide capital. In both cases, the capacity of the industry to insure is lowered.

If capital markets were perfect, this would not be a concern. Prices would adjust, including the cost of capital to insurance companies, and sufficient equity would be forthcoming to supply the demand for insurance. But if capital markets are not perfect then a sudden large loss—for example, the liquidation of HIH Insurance or the unprecedented increase in expected losses resulting from the events on 11 September 2001—can instantaneously disrupt on-going supply. Since raising capital in equity markets is expensive in comparison to raising it internally, insurers do not seek to fully or even substantially recover their capacity by resort to equity. Instead, they adjust their risk exposure downward to bring it into line with their lowered capital base. This is achieved by cutting their portfolios, through raising prices (so reducing demand) and by refusing to cover some risks. As with most industries, in capacity-constrained times, profits rise and internal financial capital can be built-up, but the process is not quick.

One of the implications of a sudden capacity constraint is that some insurance will not be issued. Insurance is issued over many lines, but in general it will not be profit-maximising to cut all lines back proportionately to the overall reduction in a firm's capacity. Rather some lines may require substantial cuts to make premium compensated risks profitable, while in others little change may be required. For example:

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[69] id. p. 130.

[70] These points are made in R Winter 1991, 'The liability insurance market', *Journal of Economic Perspectives* 5: 115-136 at pp. 116 and 126–127, and Winter, 1988, at pp. 471–472.

- The loss in overall insurance capacity due to the failure of HIH Insurance, may currently require a degree of rationing of insurance products. If a greater proportion of public liability and professional indemnity insurance policies are viewed as being marginal in comparison to other product lines—as well might be the case—public liability and professional indemnity insurance rationing would exceed that of other lines of insurance.

- Public liability and professional indemnity insurance is likely to be more vulnerable to changes in common risk, such as tort law developments, than many other forms of insurance. To the degree that this level of risk rose (this, holding other things constant, would also have been a factor in reducing the net worth of insurance companies contributing to the need for rationing), it can be reasonably expected that these two lines of insurance would suffer from greater cutbacks than other lines of insurance.

Insurance lines which carry greater uncertainty, even where the level of uncertainty of each line remains unchanged, will suffer more when capacity is constrained as insurers will prefer to use their limited capacity in safer lines.[71] For the reasons discussed in previous sub-sections, it is evident why public liability and professional indemnity may be perceived as the least safe lines of insurance.

Finally, broad developments in insurance markets are consistent with difficulties caused by capital market imperfections as outlined in this subsection, but inconsistent with adverse selection, since:

- overall rates of coverage have increased at the same time as premiums have risen, whereas adverse selection would imply rising premiums and falling rates of coverage

- industry profit rates appear to be rising, and certainly capital is flowing into the industry[72], whereas adverse selection would imply falling profits and industry contraction.

3.5.5 Tort law case loads and pay-outs

When insurance market difficulties emerge, problems with tort laws and enforcement may be the most commonly alleged cause.[73] The present situation is no different. Insurance costs are positively related to the ease with which judgements can be obtained, the range of harms damages can be awarded for and the amount of damages awarded. As

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[71] Winter, 1988, at pp. 486–487.

[72] See appendix B.

[73] Similar calls were made in the US in its last two insurance crises. See, for example, Winter, 1991, *Journal of Economic Perspectives* 5 (3) Summer, 115-136 at p. 121; George L Priest, (1991), 'The modern expansion of tort liability: Its sources, its effects and its reform', *Journal of Economic Perspectives*, 5 (3) Summer, 31-51.

a result, it is not inconceivable that changes in these areas are the cause of premium increases and refusal to supply insurance. Some evidence does suggest costs in this respect have increased in recent decades, though the evidence is mixed. Further, the present crisis has happened relatively suddenly reducing the likelihood that its root cause is the past twenty years of tort law developments.

However, even if the probability of successful suits and/or the level of damages has increased, this does not demonstrate a change toward the inefficient. Absent theoretical and empirical analysis to the contrary, the case that present litigation and award levels are per se inefficient as compared with past levels, must at least be considered as having yet to be established.

Though it may seem counterintuitive to speak of a socially desirable or 'optimal' level of litigation, this concept allows for a constructive appraisal of the relative costs and benefits of alternative institutional mechanisms for dealing with the pervasive problems of human society including public safety. Tort law is, under this view, a market mechanism that acts as a deterrent to negligent behaviour and a financial incentive to minimise risks to the public.

More specifically, an ideal rule for allocating liability under tort law would hold the party or parties that can most efficiently avoid an accident liable for any resulting harm. This is what negligence rules, which involve the concept of a 'duty of care' seek to do. The aim is to prevent such accidents occurring in the first place by providing incentives for each person, to invest, according to the specific costs and benefits he or she faces, in precautions up to the point where the marginal benefits from such investment in reducing the incidence and costs of possible accidents equal the marginal costs. It is a reasonable presumption and one that has been held by regulators and policymakers and recognised in economic analyses[74] that the efficient avoider of an accident is the proprietor of a business or some other facility which is frequented by the general public. This is the reason, for instance, for current warranty-based liability regimes being imposed on businesses serving the general public and for the introduction of strict liability for defective products being imposed on producers in almost all legal jurisdictions. The presumption reflects the limited scope most individual consumers have to properly assess the risks associated with the use of individual goods and services, and the very high—and from a social viewpoint, wasteful—costs that would be engaged were responsibility for that assessment to be placed on consumers' shoulders. At the same time, suppliers are generally far better placed to insure the risks at issue than are consumers.[75]

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[74] See M Spence 1977, 'Consumer misperceptions, product failure and product liability', *Review of economic studies*, 44(3): 561-72. See also the discussion of products liability at pp. 197-199 of R Posner 1998, *Economic analysis of* law, 5th edition, Aspen Law and Business; Hans-Bernd Schäfer and Andreas Schönenberger 1999, 'Strict liability versus negligence', available at http://encyclo.findlaw.com/3100book.pdf and the references therein; G Calabresi and JT Hirshoff 1972, 'Towards a test for strict liability in torts', *Yale Law Journal*, 81(6): 1060; and G Calabresi 1970, *The cost of accidents: A legal and economic analysis*, Yale University Press.

[75] Further discussion on these issues appears in the ACCC's two submissions to the 'Review of the Law of Negligence' and are available from the Commission's website at: <http://www.accc.gov.au>.

Even if an increase in the probability or extent of liability cannot *per se* be considered inefficient, tort law developments of past years have likely increased uncertainty as to the tails of risk distributions in public liability and professional indemnity, and this may have lead to difficulties in insurance markets (as discussed in section 3.5.2). Even if this is the case, it remains unclear that tort law impacts on the tails of risk distributions could be a central driver of the current insurance difficulties. Those changes have not been as sudden as the changes in premiums and coverage. Further, if uncertain changes increasing liability are not an ongoing occurrence, difficulties raised in estimating risks are a short run phenomenon that will be taken care of by the passage of time. Moreover, additional changes to tort law to reduce the probability of successful judgement and/or reduce the level of pay-outs, could increase uncertainty at least in the short run, as well as inefficiently reducing incentives to avoid accidents. As an example of this last point, the MIPS have called for an absolute period of time after which claims against physicians could not be pursued.[76]

3.6 Possible ways forward

This section analyses and evaluates the proposals that have been put forward to tackle the problems discussed in the previous section. The individual solutions for the respective problems faced in public liability and professional indemnity share a number of commonalities and therefore will be discussed together, unless there are specific differentiations in detail.

3.6.1 Tort reform

Tort reform has been proposed in the context of both public liability and professional indemnity. The proposals generally take one of the following forms:

i) measures to reduce the avenues for compensation available through civil litigation—these could take the form of caps on compensation pay-outs or imposition of thresholds which require a claimant to be assessed as suffering from a minimum level of injury (e.g. 10 per cent bodily impairment) before the claimant will be entitled to receive any compensation at all. These measures shift the costs of accidents toward the victim or taxpayers[77]

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[76] P. 4 of MIPS submission. Similarly the ACP notes at p. 16 of its submission that: 'Because of the different state laws, it is often unclear when the professional liability for a particular act or omission commences or ceases. In some instances the liability can commence years after the professional's involvement but remain indefinitely.'

[77] Examples of measures along these lines that have already been implemented or are about to be implemented include NSW's *Health Care Liability Act (2001)* which has reduced the level of compensation available through civil litigation; s.16 of the NSW *Civil Liability Bill 2002* fixes damages for non-economic loss.

ii) legislation allowing for self-assumption of risk by consumers of specific services, that is, the voluntary giving up of the right to sue for tort as a means of reducing public liability coverage[78]

iii) establishment of statutory compensation schemes to replace common law claims of negligence[79]

iv) measures to replace joint and several liability with proportionate liability, where the liability of defendants is apportioned according to their respective degrees of responsibility.

Proposals of the type outlined above in points (i), (ii) and (iii) in effect share the presumption that current levels of tort litigation and pay-outs are inefficiently high and have contributed to the problems discussed above; and therefore should be reduced, or in the case of (iii), abolished altogether and replaced by what is in effect a social insurance system.

The discussion in the previous section suggests that a number of complex factors are at play than just developments in tort law and enforcement. Tort law developments may have raised costs over the past twenty years, but in of themselves are not obviously a source of inefficiency or a root cause for the recent insurance crisis, whether directly by increasing costs, or indirectly by raising uncertainty and thereby adding to the difficulties of managing the fat and long tailed risks. Moreover, it is not clear adjustments to tort law would reduce the problem of uncertainty in comparison to the simple passage of time. Stability may more effectively reduce uncertainty than further change. In any case, that there are other possible significant and well-recognised causes of volatility in these sectors suggests that there may be are a range of options for reform than solely those based on the premise of reducing accident victims' recourse to litigation.

Given this starting point there are a number of points that need to be established to support suppressing the ability of tort victims to claim compensation through litigation. These include:

- flaws in the current system that make levels of litigation excessive
- excessive litigation levels—a more compelling explanation for the problems associated with current difficulties of public liability and professional indemnity insurance than other explanations
- the benefits of these measures exceed the costs.

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[78] An example of this is the Trade Practices Amendment (Liability for Recreational Services) Bill 2002 currently before the Senate.

[79] MIPS recommends establishment of a statutory medical accidents' compensation scheme where a Medical Accidents Compensation Tribunal would resolve disputes as to eligibility for, or the extent of, compensation (see pp. 3–4 of MIPS submission to Senate inquiry).

As noted, the first two propositions are yet to be established. With respect to the third, the costs of the measures involved are likely to be substantial. It is worth briefly discussing these costs.

The proposal to impose caps on compensation pay-outs seems appealing as it does not prevent claimants from seeking compensation. However, the purpose of an award of damages is to put a claimant in the same position he/she would have been in, but for the accident. Thus, placing caps on damages awards means that the accident victim, effectively subsidises the cost of cutting insurance premiums. For the reasons discussed immediately below, this may lead to inefficient levels of care and insurance being undertaken. There is also a redistribution of responsibility for payment of future costs from insurance users to the public welfare system to the extent that a cap on damages means that instead of meeting medical expenses from an award, a claimant may turn to the public health system. These undesirable effects can be mitigated somewhat by setting a cap at the top end of possible awards, but this reduces the extent of cost savings gained. All this is assuming, of course, that any savings in claims costs would be passed on to consumers in the form of reduced premiums. Worse, if a rise in tort claims is not the major reason for the problems discussed, then the benefits of this proposal will be small or non-existent, but its costs just as real.

The proposal to allow for self-assumption of risk would lead to an inefficient allocation of risk between consumers and suppliers of goods and services. This is because consumers would tend to under-estimate the value of the protection afforded by their right to sue for tort and in most cases would bargain away this protection even when society would be better off from the perspective of efficient risk management if they did not.

The fourth option is quite radical even where the statutory compensation system is intended to coexist with the common law system. However, what is usually proposed is the complete supplanting of the common law by a no-fault scheme and is worth more detailed examination.[80]

The evidence that a no-fault scheme would work better than the current system is at best inconclusive, and often fails to account for negative consequences such as by reducing efficient incentives to take proper care.[81] For example, in New Zealand, no-fault compensation is seriously flawed. Compensation payments are grossly inadequate. As of 30 June 2001, the scheme has unfunded liabilities of $NZ3.9bn.[82] Though no-fault compensation schemes can work reasonably well in narrow bands of insurance such as

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[80] As a reference point, see the submissions to the Senate inquiry at http://www.aph.gov.au/senate/committee/economics_ctte/publib_insur/submissions where a national compensation scheme tends to be equated with a no-fault scheme such as the ones currently in place for workers compensation and automobile accidents insurance.

[81] See the survey of research on no-fault compensation systems by Ian McEwin 1999, 'No-fault compensation systems', *Online Encylopaedia of Law and Economics*.

[82] Law Council of Australia submission to Senate inquiry, p. 13.

third party coverage for automobile accidents and workers' compensation, there are special factors in these cases which may render such schemes more efficient than the alternative of relying on tort law. Of course, none of these schemes provide full compensation for accident victims either. For instance, each year in Australia 20 000 workers compensation claimants seek social security payments of some type.[83]

A halfway solution proposed by the IAAust is to introduce standard no-fault benefits for community activities which are having difficulty meeting premiums where it is reasonable to expect those who participate to accept the consequences.[84] This proposal involves a less ambitious measure than wider-ranging proposals for a national accident compensation scheme and may therefore run into less of the problems that have been associated with schemes like New Zealand's National Accident Compensation Scheme.

Short of these measures, more incremental reforms focused on streamlining litigation processes may be of assistance. For instance, court-supervised timelines for litigation, compulsory mediation and a range of other measures have already substantially improved the efficiency of the litigation process.[85]

Measures aimed at properly defining doctrines of proportionate liability may also improve outcomes without curtailing the implicit pro-safety incentives under tort law. This has been strongly urged as a measure to tackle problems in the professional indemnity insurance sector. It has been commonly remarked on by submissions to the Senate inquiry that current doctrines are highly unsatisfactory as they can, for instance, lead to a situation where a professional, who may be only 10 per cent responsible for a plaintiff's loss, pays 100 per cent of the damages. In the context of professional indemnity, this may occur because professional indemnity insurance is an obvious source of funds while more blameworthy defendants are either outside of Australia or bankrupt.[86] Similarly, solicitors are required by law to have professional indemnity insurance whereas other potential defendants, such as corporate advisers are generally not.[87] Therefore, there is an incentive for plaintiffs whether genuinely or otherwise aggrieved by the acts or omissions of solicitors to make claims against them given the scarcity of other financially stable defendants.[88]

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[83] LCA submission, p 33 quoting the 1994 Industry Commission report, *Workers Compensation in Australia*.

[84] IAA submission to Senate inquiry, p. 22.

[85] MIPS submission to Senate inquiry, p. 3.

[86] ACP submission, p. 15.

[87] Freehills submission, p. 3.

[88] Similar views have been voiced by the ASCPA—see pp. 6–7 of its submission:
'A source of increased professional indemnity premium for accountants has resulted from in numerous instances the accountant becoming liable to pay the whole of a judgement debt because of the notion of joint and several liability of defendants. This has been of particular importance in large corporate claims where the accountant/auditor has been the defendant with insurance.'

The proposed solution to this problem, proportionate liability, would involve apportioning the liability of defendants according to their respective degrees of responsibility. This approach already exists in the USA and was recommended as far back as 1996 in a joint study by the Commonwealth and New South Wales governments. Rather than leading to the inefficient suppression of safety incentives, such a reform could potentially lead to an improvement in the way tort law currently allocates risks.

3.6.2 Case study: compulsory third party—New South Wales

The current crisis in the professional indemnity and public liability insurances has parallels with the experience of compulsory third party (CTP) insurance in New South Wales. CTP provides cover to owners of motor vehicles for bodily injury to third parties (passengers, pedestrians and other motorists).

Like professional indemnity and public liability, CTP in New South Wales is also a liability class of insurance. Plaintiffs can sue negligent drivers for injuries received as a result of a motor vehicle accident. The principle differences are that CTP is compulsory for retail customers while professional indemnity and public liability are, primarily, forms of business insurance. Although not compulsory many businesses are required to demonstrate they have adequate levels of cover in these classes.

In this case study we concentrate on the New South Wales scheme as it has operated in the private sector for over a decade, while most other states still operate centralised funds.

The New South Wales CTP market was privatised in 1989 and opened up to private underwriters effective 1 July 1989. To facilitate the transition premiums were fixed at $350 in 1989–90 reducing it to $345 in 1990–91.

In the period immediately following deregulation on 1 July 1991, premium rates reduced quickly on the back of strong competition and profits from favourable claims experience in the initial two years underwriting. Although ‘file and write’ price controls were put in place requiring actuarial assessments of premiums to be submitted to the regulator for approval before underwriting, competition was strong between the 13 insurers who sought dominance in the distribution channels. This competition resulted in premiums reducing to a low of $200 in 1993.

Deteriorating claims experience did not initially result in increased premiums due to the strong competition. However, when the extent of the significant losses that were incurred during 1992 to mid-1994 were realised premiums began to rise.

The large increase in premiums during 1995 prompted the government to introduce legislative amendments to limit claims costs and attempt to halt the premium increases. These amendments were aimed at strengthening the threshold at which compensation was payable. The objective was to limit awards for damages for non-economic loss (general damages), this acted to slow premium increases in 1996 but did not halt the rises.

Premiums continued to rise and reached a peak in 1999 of around $440. This prompted further legislative action resulting in the *Motor Accidents Compensation Act 1999* being introduced on 5 October 1999. The object, again, of arresting the high growth in

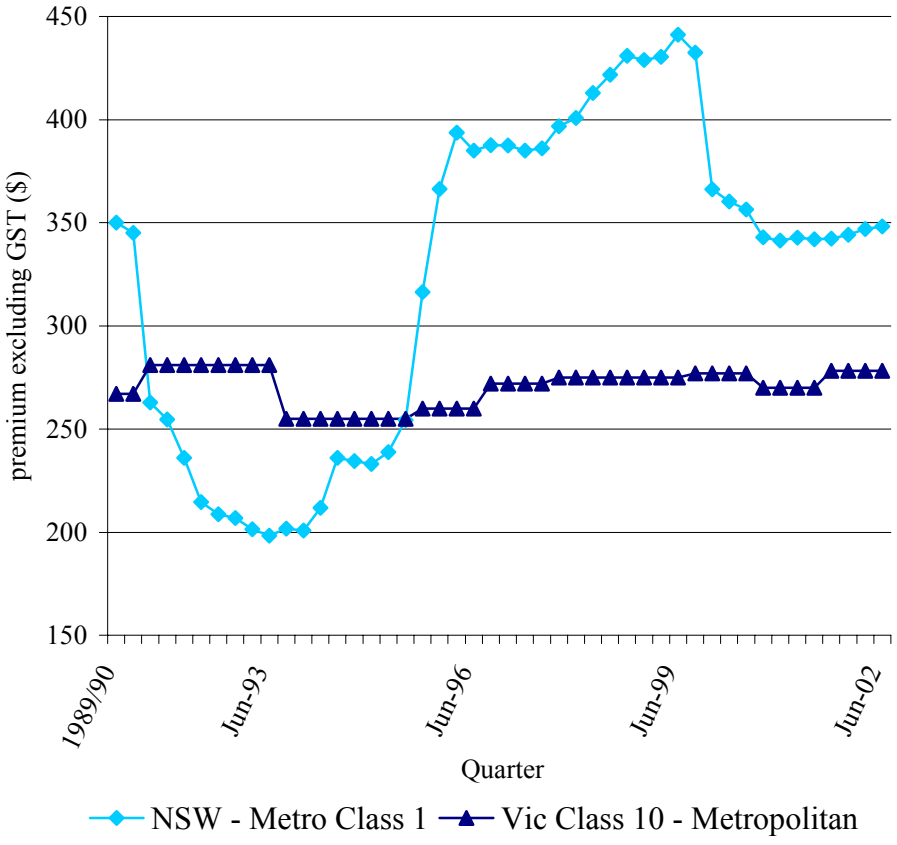
premiums was successful with metropolitan class 1 premiums managed down to below $350.

The main changes in the new scheme were:

- introduction of an objective measure for assessing impairment (based on a modified AMA 4th edition)
- restrictions on maximum legal costs
- mandated dispute resolution process.

The history of premium rates is illustrated in figure 3.10. The premium history for the Victorian scheme during the same period is also shown for comparative purpose.

Figure 3.10 CTP premiums for annual policies

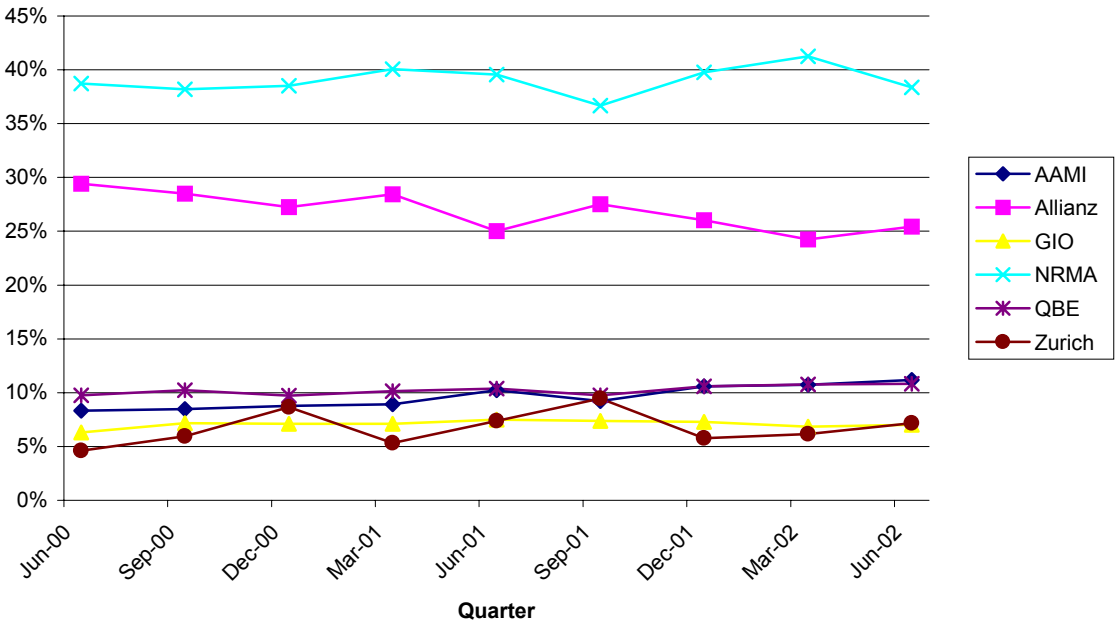


1 Source: NSW Motor Accidents Authority and Vic Transport Accident Commission
2 Premiums for 1 July 1989 to 30 June 1990 were set at $350
3 Premiums for 1 July 1990 to 30 June 1991 were set at $345

Since the commencement of competitive underwriting in New South Wales several insurers exited the market, principally due to the losses sustained and resultant loss of appetite for this risk. Several exited before the new scheme (CGU, Fortis, AMP and Mercantile Mutual) while others have since exited (RSA, NZI and SGIO).

The market is now considered quite concentrated with six insurers remaining (three licences are held by Allianz representing Allianz itself, FAI-Allianz and CIC-Allianz following the purchase of this business from the HIH Group). NRMA has a dominant market share of almost 40 per cent. Figure 3.11 illustrates the share of each remaining insurer has remained relatively constant over the last two years.

Figure 3.11 Market share of NSW CTP market by premium volume



Source: NSW Motor Accidents Authority

At the same time it is becoming apparent that this business is quite profitable (refer Section 2.3.3) with insurers releasing reserves on older accident years and lower than anticipated claim frequencies in the new scheme.

The main observations regarding this line of business are that:

- liability business is difficult to price
- strong price controls ('file and write') are not perfect
- reaction by insurers to losses is to either increase price or exit the market
- highly concentrated markets appear to allow remaining insurers to write the business at, perhaps highly, profitable levels.

But these hardly needed the New South Wales' experience to confirm. What is more interesting is:

- what happened in the market place—in particular, why did prices fluctuate so sharply
- whether resulting regulation led to efficient prices, or simply lower ones.

One explanation for the observed price changes might be that prices were initially set too low because firms lacked sufficient information (as it takes time to fully understand the loss profile of the business during which time significant losses can accrue) and the competitive effects discussed in section 3.5.3 played a role. The presence of HIH in the CTP market makes such an explanation more probable. However, getting the price wrong due to lack of experience or the presence of a firm acting outside of prudential bounds, may not be the only reason. A more cynical explanation might be that insurers bet that car insurance, with such a high political profile and existing regulation, would sooner or later settle down to a cosy oligopoly implicitly supported by regulation.[89] Initial low prices, then, amounted to competition for the right to be the long-term winner in that market.

Some parallels with the current crisis in public liability are clear. Although there are no 'headline' premium rates that illustrate affordability to consumers for public liability or professional indemnity, premiums have increased and some high risk sectors are now considered unaffordable. Figures 2.15 and 2.16 also demonstrates that losses have been sustained by underwriters over several years for these classes. The realisation of these losses by insurers, as for CTP, has been to either exit the market completely or increase premiums. However, whether a New South Wales-style reform would improve the situation, at least from the perspective of economic efficiency, seems unlikely. There is a clear risk that market intervention will become focused on lowering prices, rather than on what is efficient.

3.6.3 Risk management and information collection

Risk management could be improved, and the potential for moral hazard and adverse selection reduced by measures that make insurers better informed. For instance, the insufficiency of data available to individual insurers has been remarked on in various forums. As a consequence of this insufficiency, it is difficult for insurers to set appropriate rates for individual risks and to set aside appropriate claim reserves. It may be that this has contributed to recent inadequate premium rates, and increases the level of risk capital required to support both public liability and professional indemnity underwriting.

For example the Institute of Actuaries (IAAust) in its Senate inquiry submission has argued that[90]:

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[89] A form of regulatory capture—see G Stigler (1971) 'The economic theory of regulation', *Bell Journal of Economics*, 2, 3-21.

[90] p. 14.

> … insufficient data as been a major contributor to recent inadequate premium rates, and increased the level of risk capital required to support Public Liability underwriting. It also makes it very difficult to reliably estimate the effect of any proposed changes in the Tort system.

The IAAust notes[91]:

- there is no industry-wide data on claim exposure, other than the premium data collected by APRA making it impossible to measure exposure by industry or other rating variables, even if the premium rates were consistent across insurers, which they are not
- recording practices of claims data vary between insurers and excesses vary widely
- industry claims data sources are also incomplete because not all insurers participate in data pooling.

In the case of public liability, the use of safety inspectors; standardised information collection, even if supplied by the insured parties; and the collation of such information over all insurance companies could reduce, where these might be problems, moral hazard, adverse selection, and difficulties in measuring the tails of risk distributions. For example, the Insurance Council of Australia has proposed a national scheme of risk management administered by peak industry bodies, state governments, local governments and other organisations as appropriate to an area of activity.[92]

Sharing information also raises other efficiency issues. Some existing insurers may have made investments so as to be able to properly collect and manage sufficient data for the risks that they wish to underwrite, and also in managing those clients. This investment was made to grant them a competitive advantage which pooling of information may undermine. While pooling information will encourage firms to enter or re-enter the market after a period of time, increasing competition, it also amounts to a subsidy of entrants. The effect is to undermine firms' incentive to compete in one area central to the existence of insurance firms—the collection and management of information on client's risks, as well as the management of those clients.

In the case of professional indemnity, improved risk management may be facilitated by professional standards legislation. Under such proposals, professional associations commit to compulsory indemnity insurance, risk management programs and complaints and discipline procedures, in return for limitations on the liability of the service provider. Liability is limited to amounts that cover virtually all consumer compensation claims but avoid catastrophic pay-outs by the provider. In its Senate inquiry submission, Freehills noted that one example of a current arrangement that could serve as a model for nation-wide and/or policyholder-wide risk management standards was LawCover in New South

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[91] p. 17.

[92] p. 15.

Wales.[93] Freehills argued that under LawCover, the number of claims declined substantially over the last two years due to risk management education introduced for New South Wales solicitors and the Best Practice programs introduced by the Law Society of New South Wales for solicitors.

There is a strong complementarity between measures aimed at imposing uniform standards of risk management among policyholders, measures aimed at improving information for insurer and buyer pooling schemes, as discussed below.

3.6.4 Aggregating buyers

Aggregating insurance buyers could bring some important relief in addressing the actuarial and moral hazard/transactions cost problems. The aggregation solution is closely related to and supplements the 'risk management' solution discussed in the previous subsection.

The aggregation of buyers would reduce the transaction costs involved in supplying insurance because the body of buyers may be as well-placed as a legal cartel of sellers to ensure uniform and very broad collection of information on buyers currently suffering the brunt of the problems discussed at sections 3.4.1 and 3.4.2 . There should also be more effective moral suasion and incentives under joint buying from within the purchasing body's own ranks to take adequate care, most notably by reducing moral hazard, to keep premiums down. The presence of a single representative of the NFPs may reduce transactions costs allowing efficiency-enhancing negotiations with insurers that were precluded when each NFP had to be dealt with separately.

Moral hazards could also perhaps be reduced by introducing a NFPs' code of practice and training in safety and risk reduction directed from the level of aggregation as per the proposal discussed above, something that an aggregator representing buyers might be well-placed to implement. Arguably, an aggregator could also have some advantages in monitoring the behaviour of its members though it would be unlikely this should be relied on to the exclusion of some external form of verification. A buyers' aggregator may also help negotiate with its members and regulatory bodies to impose uniform standards. For example, presently, Pony Clubs are subject to different national standards of safety and monitoring from private riding schools, so pooling of insurance over these different clubs might well make things worse.[94] A buyers' aggregator would be in a good position to enact consistently tough requirements among constituents of a pooling scheme regarding safety and operations.

It may also be the case that an aggregator representing the interests of NFPs or other affected groups would tend to press for efficient output levels. NFPs are probably better characterised as output maximisers, rather than profit-maximisers. That is, NFPs are likely to increase output so long as costs are covered regardless of whether this

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93 Freehills submission to Senate inquiry, pp. 4–5.

94 The Equestrian Federation submission, p. 2.

maximises profit.[95] The resultant output levels would be those forced on profit-maximisers by competition, and would be, in general, efficient.[96] If there is a positive relationship between NFPs' output and insurance coverage, an aggregate insurance purchaser would seek a greater level of insurance than a profit-maximising monopsonist (which would restrict the price of and hence amount supplied and purchased of the input).

In particular, an aggregator is likely to seek the greatest amount of insurance that suppliers will offer at a price the aggregator deems its members can afford. Under competitive insurance supply, price would fall (and output rise) toward levels deemed acceptable by the output maximising monopsonist. Where there was countervailing market power in insurance supply, the aggregator would use its own power to lower price and increase output from monopoly levels.[97] Though no determinate outcome can be predicted in such a bilateral bargaining situation, efficiency again is likely to be enhanced.

It is also possible that there is further scope for the reduction of some transaction costs by the aggregation of buyers at a different level. The Northern Territory government's inquiry into public liability found that the costs of administrating this class of business were around 25 per cent of premiums charged. The inquiry also unearthed complaints about multiple coverage for similar risks – for instance, for an event held in a publicly owned facility, insurance indemnity is usually held by:

- the facility owner (e.g. local council)
- the event organiser (e.g. charity)
- individual stallholders.

As the inquiry paper argued[98], rather than having multiple insurance protection for the same risks (as typically applies for public events), it may be possible for the facility owner to arrange an extension to their existing policy. The costs of the extension would have to be shared between the event organiser, stallholders and possibly participants. A single policy extended in this manner may be cheaper than all parties arranging their public liability insurance separately.

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[95] In some cases, a NFP may so strongly believe in its output that it is willing to subsidise its provision. However, so long as the NFP is rational, this does not lead to inefficiently high levels of supply. The subsidisation occurs because of the value the NFP places on its output. That is, the NFP has its own demand for the product. Accounting for this, overall demand covers cost.

[96] Subject to the presence of any causes of market failure, for example, perhaps due to unaccounted for externalities.

[97] This is in contrast to bilateral monopoly/monopsony where the monopsonist is a profit-maximiser. There the monopsonist ideally prefers reduced output and low prices.

[98] See http://www.nt.gov.au/dbird/DBIRD_Publications/Public%20Liability/PL_ExecSummary.htm

The fat and long-tail problems can also be reduced by the aggregation of buyers, increasing the pooling of risk, in exactly the same way afforded a legal cartel of insurers.[99]

Some successful attempts at keeping premiums down through buyer pooling arrangements were noted by the APLA submission[100]:

- The New South Wales Meals on Wheels set up a Community Sector Insurance Program which provides member organisations with a pool public liability insurance scheme as well as risk management assistance. Small claims are handled by the Meals on Wheels office while large claims go through the brokers;

- AgFest in Tasmania has joined with other groups that organise agriculture shows to get reduced rates for a pooled public liability insurance scheme via AON Insurance Brokers. Whereas in 2001 AgFest had to pay $14 000, as a result of this arrangement it had to pay only $3000 this year

- The Municipal Association of Victoria has recently announced the establishment of a pooled scheme for community groups in Victoria and Tasmania. The scheme is to cover most community events, celebrations and festivals.

However, such approaches may still only have a limited impact on the current situation. For instance, the Equestrian Federation reported it had a group purchasing scheme for its members as well as subjecting affiliated clubs and organisations to rules and regulations that provided a risk management framework.[101] Additionally, as noted, even the entire pool of Australian NFPs may be insufficient to properly allow actuarial estimation of the risks facing NFPs, and further, such pooling does not solve the problem inherent in long delays in liability revelation.

3.6.5 Aggregating sellers

A joint buyer scheme leaves some critical questions unanswered. For example, it may be that under current conditions, in some instances no price exists at which the market can properly equate demand with supply.

That is, buyer-aggregation does not ensure bids put to the aggregator from competitive insurance companies will lead to full coverage of the group, or that premiums, where insurance is offered, will be deemed to be 'reasonable', that is, not exclude too many insurance seekers.

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[99] Except where the distribution is sufficiently fat-tailed an average degree of risk does not exist.

[100] APLA submission to Senate inquiry, pp. 21 ff.

[101] Equestrian Federation submission to Senate inquiry, pp. 1–2.

Aggregation of sellers arguably could help address at least the issue of 'reasonable' prices, most especially if it is deemed socially valuable that there is universal coverage.[102] In such a circumstance, the situation more closely resembles a 'universal service obligation'. It is not uncommon for a degree of market power to be granted when universal service obligations are imposed on an industry. The history of telecommunications provides the most well-known example.

However, this alternative must be approached with caution—the insurance industry needs to back up the claim that industry-wide coverage would improve matters, for instance by lowering the average risks or operating costs, or if it would help enable better coverage. In the case of universal coverage, collective supply cannot credibly be presented as a feasible tool without a careful description of whether and how high risk clients are to be turned away. The ability to turn buyers away poses obvious risks to the idea of universal service, most especially if the process is controlled by the cartel. Equally, it is not obvious that coverage decisions should be left solely in the hands of any joint buying agency. Certainly, if decisions of this type are to be made by parties which are not independent of the process, then the process should be independently monitored and subject to appeal.

The legal cartel also has the potential of substantially raising the cost of any program of subsidies (since price increases would largely be funded by subsidies, the cartel can press prices upward claiming costs justify it without losing customers). If government subsidisation of insurance purchases by particular users, such as NFPs, were to take place, the maintenance of competition among insurance companies would play an important role in ensuring government subsidies were minimised.

If government subsidies were not supplied, then the degree of distortion created by a legal cartel with power over price may well be limited. For instance, demand in the NFPs market for public liability insurance is likely to be highly responsive to price, and reasonably flat over most of its range.[103] As a result, the efficiency losses generated by a price that maximises industry profit is likely to be quite small. The need to ensure prices ensure some level of 'universal' coverage would further cap any likely efficiency losses.

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[102] Subsidisation of buyers has potential for the first two issues.

[103] One dramatic example of demand elasticity is that of horse riding centres. At 30 June 2001 only 30 per cent of all Australian Horse Riding Centre (AHRC) members in Vic and NSW renewed their premiums because of the 800 per cent hike. Of the 70 per cent that didn't renew, half closed down, and the other half are operating without insurance.

> At 1 January 2002 through the WA broker for the AHRC members of Qld & WA, only 30 our of 86 centres renewed their premiums because of the 800 per cent hike. 3 weren't offered renewals. Of the remaining 53 AHRC members, half closed down and the remainder are operating uninsured. See: http://www.horsecouncil.org.au/Letter%20from%20Sarita%20Stratton%2027.2.02.htm

In summary, the proposal for joint selling does seem intended to result in high levels of coverage (though it is not clear as to how this would be facilitated) and, at least in the absence of government subsidies, may not have high costs at least to the extent that reasonably high levels of coverage are achieved. In contrast, having an aggregator for insurance buyers does not guarantee coverage since bidding by insurers may fail to take up the whole, or even any of the pool, most especially if rates are capped.

3.6.6 Prices and subsidies

Getting the price right for any business is never easy, and getting it wrong can be extremely damaging. The problem of choosing the right price, however, is more difficult in the insurance industry because price may serve two roles: its traditional role of a means of matching supply with demand (but on this, see below) and as a means of building up industry capacity. As a result, constraining prices may not only interfere with price as means of clearing markets but may also worsen supply problems. For example, this would be the case if the observed difficulties in the insurance market are related to a fall in insurance capital relative to potential pay outs (perhaps due to and unfortunate sequence of events including HIH's bankruptcy, increased liability at law and a perceived increased level of risk post 11 September 2001). Because of capital market imperfections, lowering prices would reduce the capacity of the insurance industry to adjust its capital stock. This would only worsen and lengthen the degree of any existing crisis.

The insurance market, however, is even more complicated than this. Insurance is like a range of other kinds of capital markets (for example, for loans), which are so dependent on information, that market equilibration often takes place through portfolio, as well as price, adjustments.[104] That is, even if regulators could control price they would not control the quantity of insurance supplied. For example, when capital is in short supply insurance rates typically rise and some lines of insurance are withdrawn (as has indeed occurred).[105] As a result, price controls on their own would be unlikely to solve the current problems of the insurance market.

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[104] S Grossman and J Stiglitz 1980, 'On the impossibility of informationally efficient markets', *American Economic Review* 70(3): 393-408.

[105] One simple explanation for this is that once premiums rise above a certain level, insurance becomes unprofitable as only bad risks would purchase the insurance. Similar problems occur in other markets. Interest rates cannot be solely relied on to equilibrate demand for loans. Once interest rates reach a certain level, those who demand loans are typically bad risks.

Glossary

The following contains a brief description of common terms used in the insurance industry and that appear in this report. It is not intended to form a complete list of terminology used by the general insurance industry.

These terms are defined for use in this report. Other parties may have alternate meanings and uses for some of the terms.

Term/phrase	Meaning
Bonus/Malus	A premium reward (bonus) or penalty (malus) attaching to the renewal premium. The level of the extra premium or discount depends on the level of insurance claims made in previous year(s).
Case estimates	An estimate of total payments expected to be made in respect of claims already reported to the insurer.
Claims expense	Claims paid plus change in outstanding claims liability provision.
Claim made	Insurance policies which cover claims that are **notified** in the year of cover.
Claims occurring	Insurance policies which cover claims that **occur** in the year of cover.
Combined ratio	The sum of the loss ratio and expense ratio.
Earned premium	Written premium plus change in unearned premium reserve.
Expense ratio	Operating expenses divided by earned premium.
Fat tail	Classes of business that have very large claims but with a relatively low claims frequency, e.g. medical malpractice and directors and officers.
File and write	System used for compulsory third party business in Australia where insurers need to submit premium rates to the regulatory authorities for approval before writing the business at the stated rates. Submissions are required at least yearly and for Queensland on a quarterly basis.
IBNER	Incurred but not enough reported. Reserves held in addition to an insurer's case estimates in the event that case estimates are considered insufficient to meet future payments for known claims.
IBNR	Incurred but not reported. Claims that have already been incurred but have not yet been reported to the insurer.
Long tail	Classes of business which have claims reported over many years such as employers' liability, product and public liability and professional indemnity.
Loss ratio	Claims expense divided by earned premium.
No claim bonus	The bonus/malus system that applies to domestic motor and home classes.
Outstanding claims liability	Balance sheet provision held to meet future payments for known claims and IBNR claims.
Premium revenue	The amount of premium revenue earned during the financial year including changes in the unearned premium provision.

Rating factor	Factors which determine the level of premium an insured must pay (e.g. vehicle category, age of driver for car insurance). Typically they are based on factors considered to influence the underlying risk being underwritten.
Reinsurance	Insurance companies will use reinsurance to offload or reduce the level of risk that remains with them. There are many different types of reinsurance, proportional/non-proportional, treaty or facultative and coverage for catastrophe risks. Further, reinsurers themselves will often also seek to reduce their own level of risks held and further reinsure some lines of business. This is done with companies in the global market. Hence reinsurance is by its nature a global business and events in overseas countries may impact the cost of reinsurance in Australia.
Release of profit	The reduction in profit of a company due to claims experience.
Return on capital	Measure of capital efficiency. insurance profit/benchmark capital.
Return on equity	Profit measure for shareholders. Profit divided by net assets or shareholders' funds.
Risk-free	An investment with a zero per cent default risk (e.g. government bonds).
Run-off	Refers to a book closed to new business (e.g. HIH, New Cap Re, GIO Re).
Segment	Specific elements of the insurance market targeted by insurers.
Shareholder capital	Capital supplied by shareholders to support the business – detailed definition set out in new APRA guidelines.
Short tail	Classes of business which have claims reported quickly and generally paid quickly such as motor, houseowners/householders, etc.
Technical reserves	Provisions held to support the liability for claims yet to be paid and unearned premiums.
Unearned premium	Premiums received before the balance date but which relate to risks after that date.

A Outline of nine of the largest insurers in Australia

A.1 Insurance Australia Group

IAG includes some of the country's leading insurance franchises, including NRMA Insurance (NSW), SGIO (WA) and SGIC (South Australia). It also has a presence in New Zealand through State.

It has a 42 per cent share of the $3.3 billion national motor insurance market, a 36 per cent share of the $1.6 billion compulsory third-party market and a 20 per cent share of the $2.2 billion home insurance market. It also has a sizeable presence in workers' compensation. About two-thirds of IAG's products are sold directly to the customer.

IAG operates using a number of brands:

- NRMA Insurance
- SGIO
- SGIC
- State Insurance
- ClearView Retirement Solutions
- Circle: Circle is a business division of NRMA Insurance NZ Ltd, part of the wider Insurance Australia Group (IAG). Circle has been especially designed to provide an exciting new service to brokers in the New Zealand insurance industry
- RACV.[1]

IAG has more than 8.5 million active policies including in:

- personal lines insurance
- motor vehicle insurance
- compulsory third party insurance (motor personal injury)
- motor trade and motor fleet insurance

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[1] In 1999 IAG formed a strategic alliance with RACV whereby, through its subsidiary, Insurance Manufacturers of Australia Limited, it underwrites motor vehicle, home and other general insurance products for distribution by RACV under the RACV brand in Victoria. RACV is a separate organisation, and is not owned by IAG.

- boat insurance
- caravan insurance
- home insurance—contents and buildings
- health insurance
- life insurance
- business insurance
- workers compensation
- farm insurance
- motor trade.

Its five core businesses are the national general insurance businesses of motor, home, compulsory third party (motor personal injury), workers compensation and asset management.

A.2 Royal & Sun Alliance

Royal & Sun Alliance provide an extensive range of financial services and insurance protection products through various distribution channels. Its key distribution channels include insurance brokers, corporate partners—such as financial institutions, financial advisors and direct distribution to the public.

In Australia, it is one of the leading operators in the broker market, with significant and intermediary-based business in both personal and commercial lines.

Its Australian operations are divided into four main business areas:

- Direct insurance—comprised of home and contents, private motor, compulsory third party, travel, Australian Pensioners Insurance Agency, a specialist insurance firm for vintage and classic cars, AAMI, Australian Better Business Insurance and Just Cars for drivers with special needs.

- General insurance—comprised of insurance products sold to both commercial organisations and individuals through intermediaries such as brokers and corporate

partners. The products are personal insurances[2] (sold through corporate partners and brokers) and commercial insurances[3] (sold through specialty business units)

- Financial services.

- Asset management.

On 5 January 2001 RAC Insurance Pty Limited, a joint venture between the Royal Automobile Club of Western Australia (Incorporated) and Royal & Sun Alliance Insurance Australia Limited commenced operation.

A.3 CGU Insurance

CGU was formed in 1998 through a merger that brought together two Australian insurers—Commercial Union Insurance and NZI Insurance. Globally, CGU is part of the multi-national CGNU plc Group of Companies, one of the world's top ten insurers. CGNU was formed in May 2000 through the global merger of CGU and Norwich Union plc.

In July 2001, CGU Insurance acquired Fortis Insurance Limited, the insurer behind Fortis Insurance, VACC Insurance, AIM Insurance and AMEV Insurance. To reflect the acquisition, Fortis Insurance Limited changed its name to CGU-VACC Insurance Limited on 14 December 2001.

CGU is one of Australia's largest intermediary-based insurers. It is supported by over 4000 agents and brokers. It has annual gross written premiums of almost $AUD1.7 billion.

CGU is made up of the following divisions:

- personal insurance which offers car, home, travel, landlords residential property, caravan, boat, strata and motorcycle insurance

- rural insurance which offers small farm, farm motor, crop and livestock insurance and a combination of all these

- commercial insurance which offers 'business', 'office' and 'corporate' insurance

- Swann insurance which offers consumer credit and motor-dealer insurance products (over 40 per cent market share);

- CGU corporate which offers property, motor fleet, public and products liability, engineering and construction insurance

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[2] Home, motor and travel insurance ; lenders mortgage insurance; caravan insurance.

[3] Commercial property and casualty lines; industrial special risks; business interruption; packaged policies; construction and engineering; directors and officers; financial risks; marine insurance; workers compensation; professional and financial risks; global insurance arrangements; high hazard property ; small and micro business insurance cover; residential construction warranty insurance; aviation insurance.

- CGU premium funding
- CGU professional risks insurance which specialises in professional indemnity, directors' and officers' liability, employment practices, malpractice and defamation insurance
- CGU workers insurance
- Mutual community general insurance which offers contents, personal valuables, car, caravan, boat, trailer and travel insurance
- sssociated marine insurance.

A.4 Suncorp Metway Insurance

The Suncorp Metway Group was created on 1 December 1996 when the Queensland government owned Suncorp and QIDC entities were merged into the publicly listed Metway Bank. The group made its first major acquisition with the purchase of AMP's GIO general insurance business in Australia.

The group's main businesses are banking, insurance, investment and superannuation products with a focus on retail consumers and small to medium size businesses. The GIO acquisition increased Suncorp Metway's customers to 3.5 million and doubled its general insurance customers. The business mix has now become more diversified, with growth in personal and commercial lines and the addition of workers' compensation.

According to its website, Suncorp Metway is market leader in Queensland in compulsory third party (CTP) with a 55.1 per cent share, motor insurance (28.8 per cent), home and contents insurance (28.1 per cent) and deposits (19.4 per cent). It is ranked number 2 in Agribusiness Lending. The group also has substantial general insurance market shares nationally—16 per cent home, 21 per cent CTP, 13 per cent motor, 20 per cent workers' compensation and 11 per cent commercial.

The general insurance business includes personal insurance products such as home and contents and personal effects cover, motor and boat, compulsory third party insurance, workers' compensation and a range of commercial insurance products tailored to the small business market such as property, marine, rural, business interruption, public and product liability.

The recent completion of the acquisition of AMP Limited's 50 per cent shareholdings in motor club insurance joint ventures in RACQ (Queensland) and RAA (South Australia) has further expanded Suncorp Metway's general insurance interests. RACQ Insurance holds a 13 per cent interest in the household market, 25 per cent of the motor vehicle insurance segment and 11 per cent of the CTP market in Queensland. In South Australia, where Suncorp Metway has previously had no substantial general insurance exposure, RAA holds a 9 per cent interest in the household market and 17 per cent of the motor vehicle insurance segment. This business will continue to run independently and in competition with Suncorp Metway's existing general insurance business.

A.5 Allianz Australia Limited

Allianz Australia has a combined premium income of A$1.8 billion. Its main subsidiary is Allianz Australia Insurance Limited. It is the largest private workers' compensation insurer in Australia, providing workers' compensation cover for approximately one in five Australian employees.

In 1986 MMI acquired Allianz's Australian operation. Later MMI acquired other shares in various Allianz operations. In 1998, Allianz acquired a majority shareholding in MMI and MMI became a wholly owned subsidiary of Allianz AG.

In 2001 Allianz Australia Advantage (AAA) was formed to manage a joint venture between Allianz Australia and HIH Insurance which owned FAI. In March 2001, Allianz Australia bought out HIH's interest in the joint venture. The FAI brand, logo and trademark was acquired by Allianz Australia following the sale by HIH to Allianz Australia of their 49 per cent share of the joint venture.

Allianz Australia Limited through its subsidiaries offers a wide range of insurance and risk management products and services. These include:

- workers' compensation
- personal lines
- industrial and commercial insurance
- heavy motor
- public and products liability
- marine.

A.6 QBE Insurance Australia

The QBE Insurance Group is one of Australia's largest general insurance and reinsurance Groups. It consists of 13 separate business units.

Its portfolio mix as of December 2001 was as follows (as a percentage of gross earned premium):

- professional indemnity (7.1 per cent)
- credit insurance (4.7 per cent)
- commercial packages (9.1 per cent)
- property (7.3 per cent)

- agriculture (3.0 per cent)
- motor vehicle (13.4 per cent)
- travel (5.3 per cent)
- householders (12.8 per cent)
- compulsory third party (14.9 per cent)
- general liability (5.1 per cent)
- accident and health (3.6 per cent)
- workers compensation (11.8 per cent)
- other (1.9 per cent).

A.7 Zurich Australian Insurance Limited

Part of the Swiss-based worldwide Zurich Group, Zurich Australia offers a wide range of investment and risk management products to corporate, commercial and personal customers—both direct and through advisers and brokers.

Zurich supplies the following lines of insurance:

- home building insurance
- contents insurance
- jewellery and valuables insurance
- motor vehicle insurance—compulsory and third party
- caravan
- boat
- children's accident plan.

A.8 ING

On 1 March 2001 ING became the new name for Mercantile Mutual.

ING is one of the world's largest investment, insurance and banking groups, and has experienced very strong growth over recent years.

ING provides a broad range of general insurance products including home and contents, motor vehicle and commercial insurances through its joint venture, QBE Mercantile Mutual, formed on 1 July 1999.

Its product offerings are divided into the following:

- Business Pack insurance provides protection for retail, commercial and industrial businesses, as well as trade and office-specific coverage.
- Home and contents insurance provides home owners with financial protection against most property damage caused by certain accidents or natural events.
- Farm insurance provides rural property owners with protection against hazards that can impact on farming properties of all sizes.
- Motor vehicle insurance provides both Commercial and Private owner protection for most motor vehicles.
- Accident and health insurance products provide coverage against illness and injury.
- Engineering insurance provides protection against a range of hazards that can impact on engineering projects, from construction liability through to machinery and plant equipment failure.
- Mutual liability insurance indemnifies customers against legal liability to pay compensation in respect of personal injury or property damage in connection with their businesses.
- Marine insurance provides protection for many aspects of marine-associated activity.

Trade indemnity products are also offered, which provide businesses with financial protection against the risk of bad debt due to the insolvency of customers.

A.9 Gerling

Gerling Australia Insurance Company Pty Ltd (GAUS) is a 100 per cent subsidiary of Gerling Allgemeine Versicherungs-AG (GKA), Cologne, Germany. It is a provider of corporate property, construction, liability, professional indemnity, directors and officers liability, marine, personal accident and credit insurance.

It is particularly well-known as a leading underwriter of corporate liability insurance. It writes corporate accident and health insurance through an underwriting agency, Accident and Health International Underwriting Pty Limited, in which GAUS has a significant capital share.

B Catastrophes, reinsurance and 11 September 2001

This section updates the commentary contained in the March 2002 review that considered the catastrophic events (from an insurance point of view) that had an effect on the profitability of the insurance industry. Following the discussion on catastrophic events, the effect that such events have on reinsurance and the impact on direct underwriters is examined.

B.1 Catastrophes

Within the context of insurance, catastrophes are usually separated into natural catastrophes and man-made disasters.

According to *sigma* (a research publication produced by Swiss Re), natural catastrophes include:

- flood
- storms (includes hurricanes, tornados)
- earthquake (including seaquake and tsunami)
- drought / bush fires
- cold/frost
- other (including hail and avalanche).

Man-made disasters include:

- major fire and explosions
- aviation and space disasters
- shipping disasters
- road/rail disasters
- mining accidents
- collapse of buildings/bridges
- miscellaneous (including terrorism).

While the extent of injuries, loss of life and numbers of persons displaced are relevant measures of the social significance of catastrophes, the general insurance and reinsurance industry measure the impact of catastrophe activity in terms of **insured** losses and total

economic losses caused by these events. Note that catastrophes also often cause substantial property damage to uninsured property.

B.2 Catastrophes in Australia

A summary of Australian catastrophes was provided in section 3.2 of the March 2002 review. No further significant events have occurred since that time although the 2001 NSW floods have been included in the list of largest losses.

The main types of catastrophes are listed below together with an outline of Australia's largest insured loss in that category.

Hailstorm The largest hailstorm took place in Sydney in April 1999 and incurred an insured loss of $1 700 million ($1 844 million in June 2001 values).

Floods The largest flood occurred in 2001 in New South Wales at an insured loss of almost $900 million.

Bushfires 'Ash Wednesday' bushfires, which took place in Victoria in February 1983, were the largest and incurred an insured loss of $138 million ($280 million in 2001 values).

Cyclones 'Cyclone Tracy', which took place in Darwin in December 1974, was the largest and incurred an insured loss of $200 million ($918 million in 2001 values).

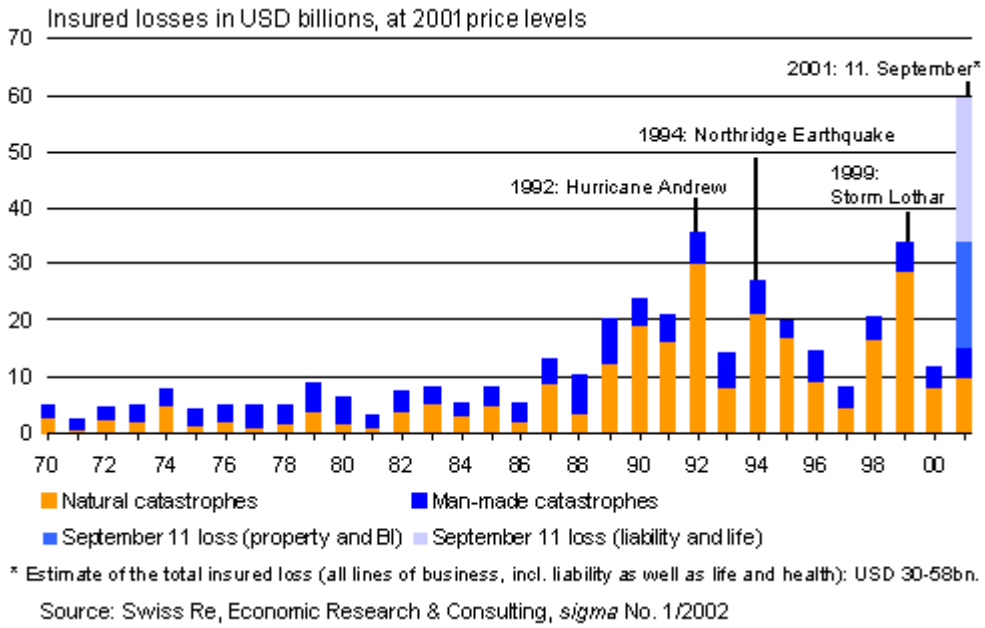
Storms The largest storm struck Sydney in January 1991 and incurred an insured loss of $226 million ($284 million in 2001 values).

Earthquakes The largest earthquake struck Newcastle in 1989 and incurred an insured loss of $800 million ($1 233 million in June 2001 values).

B.3 Worldwide catastrophes

Insured losses are illustrated in figure B.1. This figure divides catastrophes into natural and man-made catastrophes together with Swiss Re's US$44 billion mid-point estimate of the cost of the 11 September 2001 terrorist attacks.

Figure B.1 Insured losses 1970 to 2001



Insured losses, excluding the effect of 11 September totalled US$15 billion, which would have represented one of the lower years of loss when compared to the previous decade. Even including 11 September, natural and man-made property and business interruption losses (but excluding liability and life) are lower than 1992 (the previous highest with Hurricane Andrew—Caribbean) and 1999 (the second highest loss year which included Storm Lothar—France).

In total, the terrorist attacks did, however, result in a significant loss to the insurance industry. The insured loss in 2001 represents a large increase over any other pervious loss. The main difference was the inclusion of significant liability claims resulting from the large number of lives lost (last estimated at 3000). This event and its impact are discussed in more detail in section B.9 onwards.

In the March 2002 review, worldwide catastrophes were compared to Australian losses. Updated figures from *sigma* are only available for worldwide losses. Table B.1 summarises the number of catastrophes tabulated in the *sigma* reports for 1998, 1999, 2000 and 2001 and shows the estimated total insured losses from those events separately for Australia and worldwide.

Table B.1 Catastrophes: 1998 to 2001

	World-wide		Australia	
Year	Number of events	Insured losses	Number of events	Insured losses
	#	US$m	#	US$m
1998	342	17,512	4	822
1999	326	28,590	2	982
2000	351	10,597	na	na
2001	315	34,392	3	745

Source: Swiss Re: sigma No.s 1/1999, 2/2000, 2/2001 and 1/2001
Australia 2001 from Guy Carpenter

While the number of events is relatively stable year to year on a worldwide basis, the amount of insured losses arising from those events varies significantly. The largest individual catastrophe in each year was US$3.5 billion, US$4.5 billion, US$1 billion and US$3.2 billion (after the US$19 billion relating to 11 September) in 1998, 1999, 2000 and 2001 respectively.

Table B.2 lists the ten most expensive catastrophes (in terms of insured losses values in year 2001 US dollars). To put the catastrophes that occur in Australia into perspective the most expensive catastrophe in Australia to date is the Sydney hailstorm in 1999 with an insured loss in 2001 values of US$1 billion. At this level the Sydney hailstorm does not rank in the top 40 catastrophes as listed in *sigma.*

Table B.2 Ten most expensive catastrophes worldwide Since 1970

Insured loss[1] (in US$m, at 2001 price levels)	**Victims**[2]	**Date**	**Event**	**Country**
20,185	38	23/08/1992	Hurricane Andrew	US, Bahamas
19,000	3,000	11/09/2001	Terrorist attacks on WTC, Pentagon etc.	US
16,720	60	17/01/1994	Northridge earthquake	US
7,338	51	27/09/1991	Typhoon Mireille	Japan
6,221	95	25/01/1990	Winterstorm Daria	France, UK et al.
6,164	80	25/12/1999	Winterstorm Lothar over Western Europe	France, CH et al.
5,990	61	15/09/1989	Hurricane Hugo	Puerto Rico, US et al.
4,674	22	15/10/1987	Storm and floods in Europe	France, UK et al.
4,323	64	25/02/1990	Winterstorm Vivian	Western/Central Europe
4,293	26	22/09/1999	Typhoon Bart hits south of country	Japan

[1] Excluding liability losses

[2] Dead and missing

Source: Swiss Re, Economic Research & Consulting, *sigma* 1/2002

This list confirms that the most expensive events since 1970 have all occurred in 1987 and later. As noted in the March 2002 review, insurers and reinsurers consider that the relatively low catastrophe activity of the 1970s and 1980s are no longer representative of what can be expected in the medium term future. The higher catastrophe activity of the 1990s (illustrated in figure B.1) is being taken as a better indicator of what might be to come.

B.4 The reinsurance market

The reinsurance market provides financial protection against catastrophic events and, by its very nature, is essentially an international market. Developments within the insurance market of any one particular region at any one time are unlikely to influence the reinsurance market to any significant degree, particularly a national insurance market the size of Australia's (Oceania represents only around 1.6 per cent of the worldwide non-life insurance market).

B.5 The domestic reinsurance market

Overseas reinsurers, many with locally based operating subsidiaries, dominate the Australian reinsurance industry. Only one Australian reinsurer, Sydney Re (a subsidiary of QBE Insurance), is among the ten largest reinsurers in the Australian market. Some reinsurance from Australia is placed directly into the major overseas markets, particularly with Lloyds and the London Market.

During the 1990s, there were three internationally recognised reinsurers based in Australia: GIO Re (a subsidiary of GIO), New Cap Re and ReAC. All three have ceased to underwrite reinsurance, the last to cease being ReAC, which went into run-off in February 2000.

The demise of all three can be traced to substantial losses incurred from writing relatively large volumes of international reinsurance, that turned out to be significantly under-priced, together with further losses arising from a string of small to medium sized catastrophes that occurred in the second half of 1998 and in 1999.

It should be noted that the vast majority of premiums written by these Sydney-based reinsurers was sourced outside of Australia. Their demise has had relatively little impact on the availability or cost of reinsurance for Australian insurers.

Table B.3 is taken from a publication by APRA that compiles the data of all private insurers operating in Australia in respect of their financial years ending in the twelve months to 31 December 2001.

Table B.3 Premium revenue ceded as reinsurance by class of business in Australia

Class	Premium Revenue		
	Gross	Reinsurance	% ceded
	$m	$m	% gross
Fire & ISR	1,499	681	45%
Householders	2,240	728	32%
CTP motor vehicle	1,943	353	18%
Commerical motor vehicle	1,035	203	20%
Domestic motor vehicle	3,436	1,501	44%
Marine & aviation	370	94	25%
Professional indemnity	521	201	39%
Public & product liabilty	894	196	22%
Empoloyers' liability	726	61	8%
Mortgage	225	58	26%
Consumer credit	158	4	3%
Travel	130	24	18%
Other accident	762	206	27%
Other	437	227	52%
Inwards treaty	2,470	173	7%
Total	**16,847**	**4,709**	**28%**

Source: APRA: Selected Statistics: Year to 31 December 2001.

The amount of premium ceded in 2001 of 28 per cent represents a significant increase to that ceded in 2000 (23 per cent) and in 1999 (19 per cent) with the largest increases in respect of the property classes.

Although no specific details were provided, it is expected that many insurers may increase their retention levels in order to reduce the cost of reinsurance. This would act to reduce insurer profitability expected from recent premium increases, as a greater proportion of the premium dollar will be required to finance the higher risk retention.

Although the above figures probably include an element of financial reinsurance, a large majority of the premiums ceded to reinsurance will be in respect of traditional reinsurance. It should be remembered that the net cost of reinsurance is much less than the amount of premium ceded to reinsurance as recoveries are paid to insurers.

Table B.3 suggests that for most classes of business, 25 per cent to 45 per cent of gross premiums are ceded to reinsurance with an average across all classes of approximately 28 per cent. Recent reinsurance premium rate increases of 30 per cent will represent around 9 per cent of insurers' premiums. Premium increases reported by selected insurers (refer section 2.7) tend to suggest that insurers have anticipated the increase in reinsurance rates and have already factored these increases into their premium.

B.6 Profitability of reinsurance in Australia

Table B.4 summarises the reported results of reinsurers operating in Australia over the period for calendar years 1999, 2000 and 2001 in respect of Australian reinsurance business. The results exclude the business written outside Australia by Australia-based reinsurers and also exclude the results on reinsurance of Australian risks placed with reinsurers outside Australia.

Table B.4 Profitability of Australian-sourced reinsurance

Year	1999	2000	2001
Loss Ratio (%)	137%	95%	94%
Expense Ratio (%)	22%	25%	30%
Combined Ratio (%)	159%	120%	124%

Source: APRA Selected Statistics December 1999 to 2001

The effect of the Sydney hailstorm in April and the floods in south-east Queensland in May are clearly shown in the high loss ratio in 1999.

Increased reinsurance rates in 2000 and relatively low losses resulted in an improvement in the loss ratio. Although reinsurance premium rates increased again in 2001 there was no improvement in the loss ratio due to the cost of extensive flooding in NSW. The combined ratio actually decreased despite substantial increases in expenses in 2000 and again in 2001—through improved loss ratios achieved in both years.

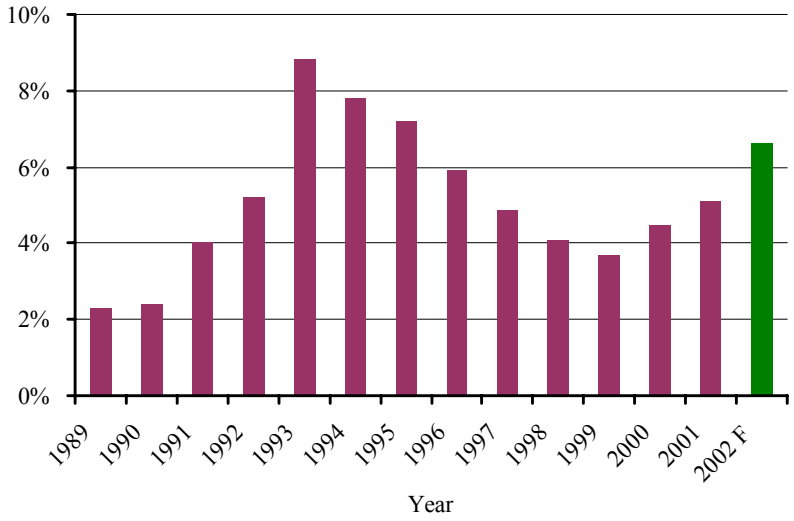
Further increases in reinsurance rates in December 2001 and June 2002 renewals are expected to increase the profitability of Australian sourced business.

B.7 Rate-on-line

Figure B.2 shows the average rate-on-line for catastrophe reinsurance over the 13 years to 2001. The rate-on-line is the ratio of the premium to the amount of cover provided - for example, a rate-on-line of 5 per cent indicates that the premium is $5 per $100 of cover provided. Hence a higher rate-on-line indicates higher reinsurance premium rates.

As noted in the March 2002 review there are technical reasons that suggest that the rate-on-line analysis may be distorted. However, it does give a reasonable indication of changes in the market over time.

Figure B.2 Average rate-on-line (% of sum reinsured)



Source: Guy Carpenter "The World Catastrophe Reinsurance Market: 2001" (1989-2001)
The forecast rate-on-line (2002 F) is estimated by Taylor Fry

The value for 2001 was determined before 11 September and reflects the change in rates as observed in the 2001 renewals, principally at 1 January and 1 July 2001. The impact of anticipated accelerated rate increases following the events of 11 September 2001 will be reflected in the figures for 2002. It is expected that the rate on line for 2002 will increase by over 30 per cent. This would increase the rate on line to 6.6 per cent.

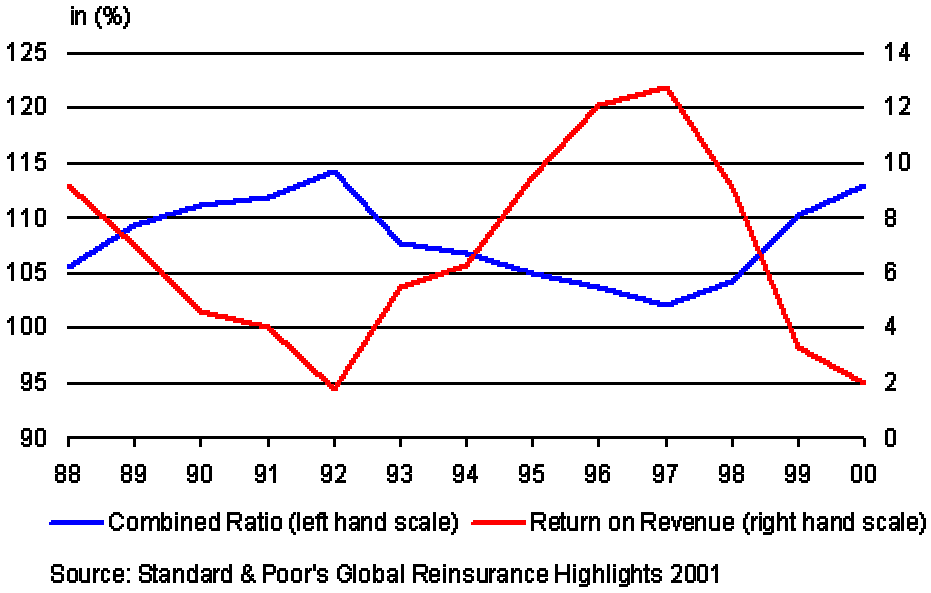
Insurers were able to take advantage of relatively cheap capital in 1998 and 1999, which enabled them to effectively subsidise premiums. Losses sustained by reinsurers both domestically and worldwide in 1999, however, saw the start of a reduction in the level of capital made available to the market and an increase in reinsurance rates. For insurers, the higher cost of reinsurance coincided with a downturn in investment income and low underwriting profit.

B.8 Worldwide profitability

Throughout the mid-1990s the profitability, using the same grading system as adopted for the analysis of the Australian insurance industry (refer section 2.3), was considered 'moderate'. This was partly due to higher investment returns available at that time.

Returns on revenue reduced following large insured losses in 1999 (refer table B.1) and a downturn in investment income. This is clearly illustrated in figure B.3.

Figure B.3 Worldwide profitability of reinsurance



Source: Standard & Poor's Global Reinsurance Highlights 2001

Figures for 2001 are expected to reveal even lower returns on revenue due to the extremely large losses generated by the 11 September 2001 terrorist attacks. This will be mitigated somewhat by increases in reinsurance rates, which have now occurred for three successive years.

B.9 Impact of 11 September 2001

This sub-section examines the impact of the 11 September 2001 terrorist attacks in the United States on the domestic market. There has been considerable commentary on the actual events themselves with most reinsurers, brokers, risk managers and major insurance advisors publishing a range of material examining various facets of the events. The comments below draw on a variety of sources to illustrate how this mega-catastrophe impacted on the market.

B.10 Background

The effect of terrorism on the insurance industry is not new. Many events have occurred over a number of years that have resulted in significant insurance losses. The ten largest insurance losses, according to Swiss Re, are listed in table B.5.

Table B.5 Ten largest losses due to terrorism

Insured loss[1] (US$m - 2001 prices)	Victims[2]	Date	Event	Country
19,000	at least 3,000	11/09/2001	Terror attack against WTC, Pentagon and other buildings	USA
907	1	24/04/1993	Bomb explodes in London's City (near NatWest tower)	UK
744	-	15/06/1996	Bomb explodes in Manchester	UK
725	6	26/02/1993	Bomb explodes in garage of WTC	USA
671	3	10/04/1992	Bomb explodes in London's financial district	UK
398	20	24/07/2001	Suicide bombing at Colombo International Airport	Sri Lanka
259	2	9/02/1996	Bomb attack on London's South Key Docklands	UK
145	166	19/04/1995	Bomb attack on government building in Oklahoma City	USA
138	270	21/12/1988	PanAm Boeing 747 crashes over Lockerbie due to bomb	UK
127	-	17/09/1970	Three hijacked passenger airplanes dynamited in Zerga	Jordan

[1] Excluding liability losses

[2] Dead or missing

Source: Swiss Re, Economic Research & Consulting, *sigma* 1/2002

The obvious difference of the 11 September 2001 terrorist attacks to the preceding events is the magnitude of the loss. Although the ultimate loss will not be known for many years, most commentators are estimating the likely range to be US$20 billion to US$40 billion. Table 3.5 is prepared by Swiss Re and estimates the property and business interruption losses to be US$19 billion. They estimate the liability, life and health losses to be a further US$25 billion.

B.11 Risk assessment

Examining various loss estimates since 11 September 2001 reveals the difficulty insurers have in pricing risks. Various estimates are listed in table B.6. The 'low' and 'high' figures represent the ranges shown. Some ranges provided may be simply illustrating the inclusion of business interruption or liability insurance so the figures are not necessarily directly comparable.

Table B.6 Estimates of loss

Source	Date	Low	High
		US$ billion	US$ billion
Milliman—Newsbreak vol. 29 no. 5	October 2001	66	77
Swiss Re—*sigma n*o. 1/2002[1]	January 2001	19	44
Marsh—Insurance Market Report 2002	June 2002	20	35
Tillinghast Towers-Perrin	May 2002	30	58

1 No range supplied

This progression is typical of large losses where initial estimates of the total cost rises quickly as information on the loss becomes available. These estimates tend to become exaggerated and relatively quickly will overestimate the ultimate cost. Only once sufficient time is available for more rationale assessments to be made does a clearer picture of the ultimate loss begin to emerge.

The ultimate loss will not be known for many years as the various claims are settled and legal issues surrounding the loss are clarified. For example, one of the issues is whether or not the attacks represented one or two events. The result of this issue will have significant implications on the actual losses paid by the reinsurers and direct underwriters. Many other policy coverage issues are expected to emerge and be required to be settled in court before the ultimate loss and contribution by each insurer/reinsurer is known.

The important issue is that there is considerable difficulty in simply estimating the loss for known events. This highlights the problem facing the industry in that reinsurers need to estimate both the cost and frequency of unpredictable events that are yet to occur. As illustrated above this is problematic enough even when details surrounding the event are known.

B.12 Classes involved

Apart from the extraordinarily large aggregate cost involved, the 11 September 2001 terrorist attacks also covered a large number of classes. The Tillinghast Towers-Perrin estimates are reproduced in table B.7.

Table B.7 Estimated loss by class of business

Estimated loss	US$ billion
Commercial property	10–12
Business interruption	3.5–7
Liability	5–20
Aviation	3–6
Workers compensation	3–5
Life, accidental death and disability	4.5–6
Other	1–2
Total	30–58

Other classes will include[4] Commercial and Domestic Motor and Homeowners.

B.13 Lessons from the past

Losses of unprecedented magnitude have, historically, precipitated a 'hardening' in reinsurance rates. The clearest example of this is Hurricane Andrew in 1992. Insured losses had been increasing in the late 1980s and early 1990s resulting in significant insurance losses.

The markets response to Hurricane Andrew was for reinsurance rates to increase sharply as illustrated in figure B.2 above. At that time the issue was whether it heralded a new era of high cost catastrophes. This remained unclear until 1999 when a series of large losses confirmed that industry losses could reach that level again.

The parallels of Hurricane Andrew and the 11 September 2001 terrorist attacks are obvious. Reinsurance rates were beginning to increase as reinsurers sought to restore profitability following the losses in 1999. The terrorist attacks have, like Hurricane Andrew, destroyed a

[4] General Cologne Re *Topics 10,* p. 7.

considerable volume of capital. The questions being asked by reinsurers now are also similar 'How do we manage this risk?' and 'What is the likely cost and frequency of such occurrences?'

The low rates in 1989 and 1990 were considered extreme - the resulting losses (compounded by a series of catastrophes through the late 1980s and early 1990s) almost caused the demise of Lloyds of London and resulted in the failure of many smaller reinsurers. This led to a significant reduction in reinsurance capacity around the world that contributed to the very rapid increase in reinsurance premium rates over the three years to 1993.

B.14 Market responses

The immediate response to the terrorist attacks by insurers was not unexpected. When a risk has the potential to remove large volumes of capital and premiums being levied are clearly inadequate to cover the occurrence of a similar event the response is to avoid it. This is achieved by specifically excluding acts of terrorism. Not surprisingly, exclusion clauses were largely in place for the December 2001 renewals. Given the magnitude of the potential losses direct writers quickly followed suit by excluding terrorism from their policies effectively transferring the risk back to the policyholder.

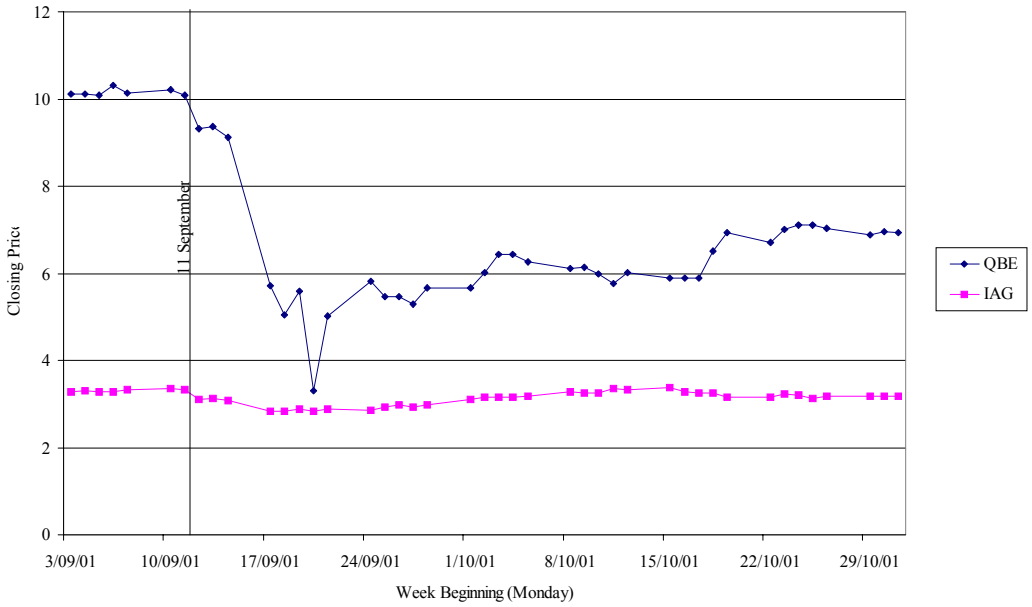
Two other effects of such a sizable destruction of capital relates to the reallocation of capital.

The first is the potential exit of capital from the industry as the losses prove too great for some companies who are forced to exit the market. Casualties of the terrorist attacks included Copenhagen Re, CNA Re, Fortress and Taisei. Another significant exit that affected the Australian market was St Paul Re. St Paul Re was a major underwriter of liability business (including medical indemnity) but has since exited most classes of business.

The second response is for insurers to reassess the risk of the business and the returns being achieved on the capital being employed. Shareholders of insurers effectively compel this reassessment on insurers as the events demonstrate to shareholders the high risks associated with insurance.

On the domestic front, only two insurers (QBE and IAG) remain listed on the Australian stock exchange (exits in recent years include HIH, ReAC, New Cap Re and GIO). IAG was relatively insulated from losses to the terrorist attacks and its share price did not suffer significantly. However, QBE was exposed to the losses and its share price fell significantly before recovering. QBE raised additional capital to restore its balance sheet and, to some extent, the share price. Share price movements of QBE and IAG are illustrated in figure B.4.

Figure B.4 Impact of 11 September on publicly listed insurers



To restore investor confidence insurers needed to rebuild their balance sheets and increase returns to shareholders (over that obtainable on lower risk investments). This is achieved through more disciplined underwriting. Common catch cry's in industry materials are 'return to the fundamentals', 'back to the basics' and 'concentration on technical underwriting'.

More disciplined underwriting takes the form of higher premiums, increased policy deductibles, limits on policy covers, exclusions in cover, etc. Each of these reactions is currently being experienced by:

- consumers in insurance policies
- insurers in their reinsurance renewals
- reinsurers in their retrocession (reinsurance of the reinsurer) renewals.

B.15 Capacity

The efficiency of the market lies in the capital flows. Material provided by Aon Risk Services on capital flows indicated that 26 insurers either exited the market or were sold to other insurers/reinsurers. Not all of these withdrawals can be attributed to the 11 September 2001 terrorist attacks. In addition they listed 36 separate capital raisings (some for the same company).

A further five new speciality reinsurance companies were created in Bermuda post-September 11. This new money has been raised to capitalise on the relatively high reinsurance premiums. These companies are well positioned to profit from higher reinsurance rates as they do not carry the baggage of past losses of existing insurers and the need for them to repair their capital base.

The above activity effectively introduced US$25 billion of new capital into the market, however, it was not sufficient to offset the US$100 billion that exited the industry as a result of:

- incurred losses (September 11 and other losses)
- reserved strengthening (this is a worldwide phenomenon, however within Australia this has been partially driven by APRA)
- investment losses
- withdrawals—both voluntary and involuntary.

Before the events of 11 September 2001 in the USA, market commentary suggested that the current market turn-around was not being driven by a lack of capacity and that there was a historically high amount of capital available within reinsurers around the world to provide capacity. Brokers suggested that these rate increases were the result of a collective realisation by reinsurers that current premium rates were inadequate to provide the required return on capital, and that no one could afford a repeat of the extreme losses witnessed in the early 1990s.

The insured losses arising from the terrorist attacks on 11 September 2001 has reduced the amount of capital available within the insurance and reinsurance markets around the world. As in the early 1990s after Hurricane Andrew, the reduced level of capital is acting to accelerate the process of reinsurance rate increases that was already under way.

B.16 Upside

Experience of the early 1990s would suggest that the industry can expect two or three more years of increasing reinsurance rates and hence insurance premiums. However, the following factors indicate that the rate rises may be more moderate to those experienced at that time:

- reinsurance rates had already been increasing for two years
- rates on line did not reduce to the very low levels in the late 1980s
- improved capital flows and the new capacity in Bermuda available to underwrite risk
- rates have already increased significantly in December 2001 and June 2002
- direct writers in Australia have already significantly increased premiums and so are better placed to absorb further reinsurance rate rises.

A further positive factor argued in some quarters is that the London market is now dominated by corporate capital that has replaced Names and is therefore likely to adopt a more disciplined approach to underwriting than syndicates had in the past. It is noted that although the London market may provide the necessary access to capital to insurance companies for underwriting risks, insurance companies remain responsible for setting premiums at a

reasonable level. Recent experience suggests that this greater 'discipline' now expected in the London market has not been apparent by insurers in recent years.

B.17 Reinsurance conclusion

The reinsurance market is essentially an international market—the underwriting cycle that characterises reinsurance premium rates over time has relatively little to do with what happens within the Australian insurance market.

The 11 September 2001 terrorist attacks resulted in significant losses and acted to accelerate increases recently observed in reinsurance rates at both the December 2001 and June 2002 renewals. Whether or not rates will continue to rise at the December 2002 renewal will depend on the extent to which the increases to date have adequately repaired balance sheets in the wake of the losses sustained in 2001 and restored premiums to profitable levels.

The extent to which reinsurance rate increases influence each class depends on the level and type of reinsurance in that class. While insurers can smooth the effect that the variation in reinsurance costs has on insurance premiums, they cannot afford to absorb it totally. Reinsurance costs have continued to increase by around 30 per cent over the 2001–02 financial year. As noted in section 2.6.3 this is a contributing factor to increases in premiums charged by insurers various classes.

The competitive reinsurance market in the late 1990s enabled price competition that led many insurers to take advantage of under-priced reinsurance to improve their results. The cheap rates enabled insurers to provide lower premium rates and expand market shares. Rate increases by insurers that have relied on cheap reinsurance may find their premium increases are inadequate to cover the increases in the cost of reinsurance or may not find reinsurance cover at all. Insurers in this position face three options[5]:

1 stay in the market, pay higher reinsurance premiums and generate lower earnings unless premiums can be increased to an adequate level

2 stay in the market, increase net retentions, and risk incurring heightened shock losses to capital (which can trigger ratings downgrades, and, in the extreme, insolvency)

or

3 exit the affected lines of business.

In 1993–95, reinsurance rates were probably 'excessive' while in 1996–98 moved through being adequate to being inadequate.

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[5] Fitch P&C, January 2002, p. 21.

C Market impact of HIH Group liquidation

This section updates the commentary in the March 2002 review regarding the liquidation of the HIH Group and the potential that this has had to influence premium levels offered by other insurance companies and the availability of particular types of insurance.

C.1 Background

The HIH Group had a diverse corporate structure that included both local and international companies. Underwriting of Australian insurance business was primarily conducted for the HIH Group by:

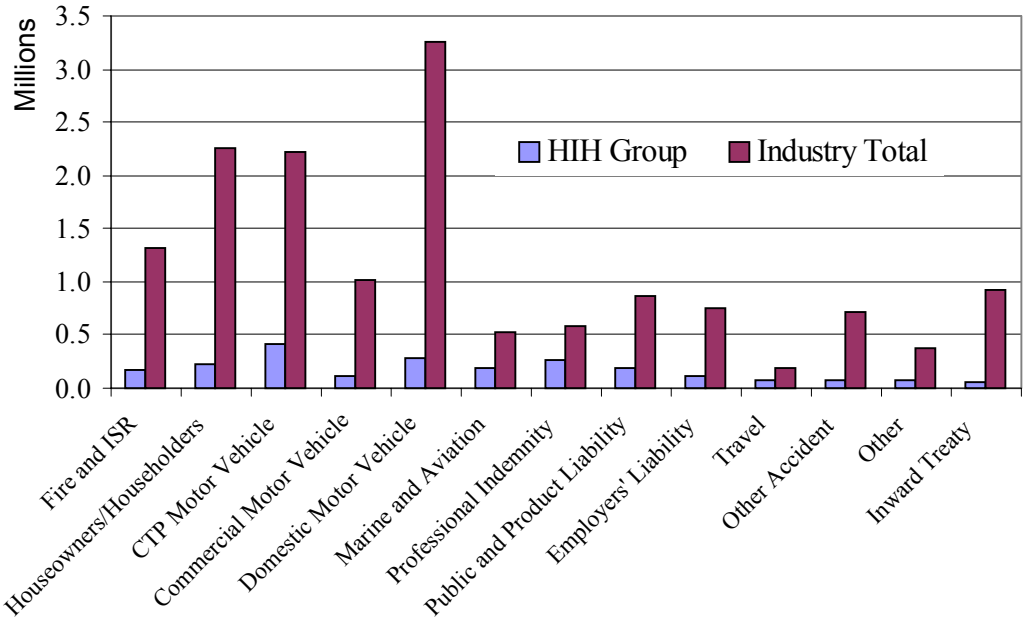
- CIC Insurance
- World Marine and General Insurance
- FAI General Insurance
- HIH Casualty and General Insurance.

Three other companies within the group also had Australian licenses, however, these companies were not writing business when the HIH Group was placed in provisional liquidation as they were already in run-off. These companies are:-

- HIH Underwriting and Insurance (Australia)
- FAI Traders Insurance
- FAI Reinsurance.

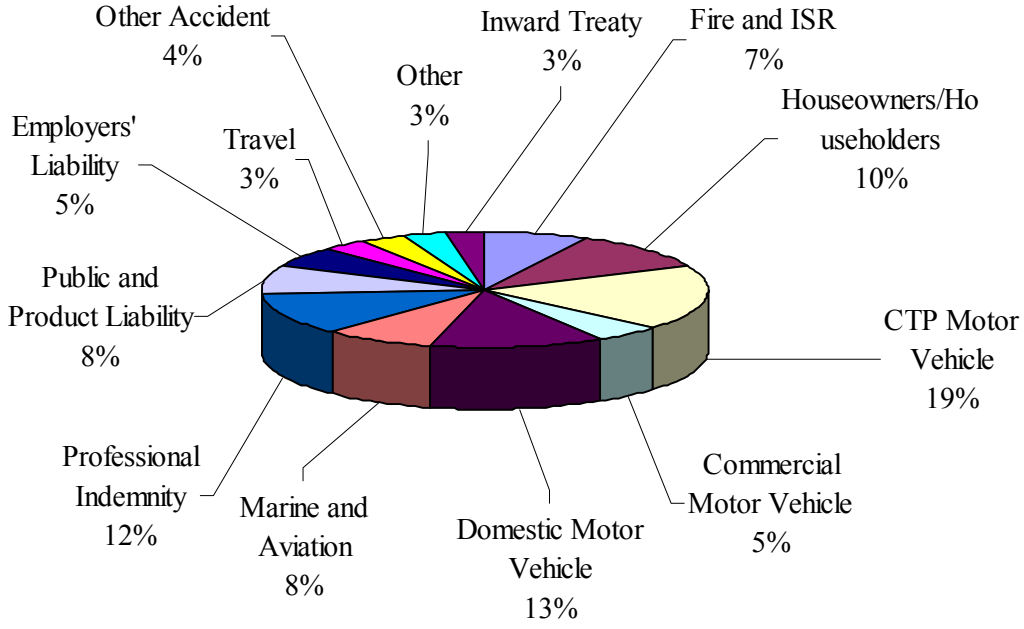
The HIH Group of companies represented around one-eighth of the domestic insurance market as measured by premium revenue. Total premium revenue reported to APRA for its 30 June 2000 report was $16.1 billion while HIH premium revenue totalled $1.65 billion or 10.3 per cent. This represented a significant reduction from the 14.5 per cent market share reported to APRA at 30 June 1999. The share of each class is shown in figure C.1.

Figure C.1 HIH group market share



HIH underwrote most classes of business except for mortgage and consumer credit. Although not evident in figure C.2, HIH held significant market shares of CTP, professional indemnity, public and product liability and travel.

Figure C.2 HIH Group 1999 premiums by class[1]



1 Premium volumes reduced by 26 per cent in 2000. Therefore, premium revenue is illustrated for 1999 to reflect the 'normal' operations of HIH.

In June 2001 it was announced that a Royal Commission was to be established to examine the circumstances surrounding the failure of the HIH Insurance Group. This announcement followed the appointment of provisional liquidators (KPMG) on 15 March 2001 to 18

companies (including the seven Australian licensed insurers), which itself followed considerable market speculation and rumour as to the ongoing viability of the HIH Group. The HIH Group was placed in liquidation on 27 August 2001.

As at January 2002, preliminary disclosures by the administrator indicated overvalued assets and underestimated liabilities as the cause of the insurers' failure. At a creditors' meeting on 3 April 2002 the liquidators confirmed that the companies were insolvent with the estimated deficiency in assets in the range $3.6 billion to $5.3 billion. This contrasts to the company's last published audited accounts (30 June 2000), disclosing net assets of $939 million.

The following considers the general impact that the failure of the HIH Group has and may continue to have on the market and consumers.

C.2 Movement before liquidation

The HIH Group underwent considerable expansion and contraction over the last decade. Some of the larger transactions directly impacting business in Australia include the acquisition of CIC Insurance Group in 1995, Winterthur Swiss' sale of its 51 per cent shareholding in 1998, the take-over of FAI Insurance in 1998/99 and the acquisition of World Marine and General Insurance in 1999.

In 2000 Allianz entered into a joint venture with HIH in respect of lines of personal insurances (householders/homeowners, domestic motor vehicle, NSW CTP, and some marine). Early in 2001, HIH announced a joint venture with QBE in respect of commercial insurances. Just before the appointment of provisional liquidators, HIH agreed to sell its workers compensation portfolio (Australian Capital Territory, Northern Territory, Tasmania, and Western Australia—workers compensation is underwritten by public sector schemes in other jurisdictions) to NRMA.

C.3 HIH market share

In the March 2002 review it was considered that HIH could have an impact on premiums in the classes in which it had a dominant share. Table C.1 shows that the HIH Group had a significant share (significant has arbitrarily been taken to mean 10 per cent) in CTP motor, professional indemnity, public and product liability, employers liability, and other.

Table C.1 HIH market share by premium revenue inside Australia

Class of business	30-Jun-97	30-Jun-98	30-Jun-99	30-Jun-00	30-Jun-01
Fire and ISR	9.5%	10.6%	12.5%	8.5%	0.0%
Houseowners/householders	7.6%	7.7%	10.3%	8.4%	0.0%
CTP motor vehicle	17.3%	17.7%	18.5%	19.5%	0.0%
Commercial motor vehicle	10.8%	11.8%	11.1%	8.5%	0.0%
Domestic motor vehicle	6.8%	7.3%	8.4%	6.3%	0.0%
Marine and aviation	24.9%	30.3%	34.4%	9.7%	0.0%
Professional indemnity	46.0%	48.0%	43.9%	34.6%	0.0%
Public and product liability	22.3%	24.2%	21.4%	14.6%	0.0%
Employers' liability	9.8%	19.5%	16.0%	11.2%	0.0%
Travel	32.5%	37.1%	39.9%	33.3%	0.0%
Other accident	13.8%	10.5%	10.8%	6.5%	0.0%
Other	8.0%	10.0%	17.6%	13.3%	0.0%
Inward treaty	17.0%	8.9%	6.6%	2.0%	0.0%
Total	12.3%	13.0%	14.5%	10.3%	0.0%

C.4 Impact of liquidation

From an insurance perspective, the collapse of the HIH Group raised concerns over:

- incurred claims (ability to meet claim payments for both known claims and claims incurred but not yet reported)
- in-force policies (future cover for which premiums had already been paid).

For in-force policies it was necessary for customers of the HIH Group to obtain additional cover through other insurers. This required the payment of an additional premium without recovery of premiums paid to HIH. For most classes this issue was relatively short lived as most covers could be placed in the market.

Of significant concern is the liability in respect of claims already incurred. The indicated low-end deficit of $3.6 billion suggests a large number of claimants will not receive compensation for losses covered under insurance policies issued by the HIH Group.

The run-off of a large insurance group such as HIH is likely to continue well into the next decade. During this time claims will continue to arise. Every issue relating to the insurance cover provided is likely to become the subject of dispute. This occurred at the outset with brokers withholding client premiums pending agreement on whose money it was—the liquidators (HIH) or the policyholder. The terms and conditions of every contract are likely to be closely scrutinised and contested to assess liability. The largest of these will relate to reinsurance.

The mechanism for financing the under-reserving will prove the most problematic. The state and federal governments have already acted in a number of classes to facilitate the

continuation of cover and financing of past losses (e.g. builders' warranty and public liability).

The critical impact of the liquidation of HIH was that it highlighted classes of insured that had been underwritten by HIH, which the market considered were at unprofitable levels. Placement of these risks with other underwriters represented significant and, in many instances, unaffordable increases in the cost of insurance.

Insurers also faced increases in the cost of claims. Previously HIH would have contributed to the cost of settlement according to their share of a contract or loss. In the absence of HIH, remaining insurers are left to fund the defence (hence increasing legal costs) and possibly bear the full cost of the loss (e.g. an accident that involves two motor vehicles insured by HIH and another insurer. In some instance the driver of the HIH insured motor vehicle would be at fault and so HIH would meet the full cost of the claim. In this instance the non-HIH insurer now must meet the cost of damage to their policyholders' vehicle).

Availability of cover

The inability of obtaining insurance cover at any price has been frequently reported and the Commission is aware that brokers still continue to advise clients that insurers, who underwrite professional indemnity and public liability, are unwilling to provide cover.

In many instances, HIH or other insurers that have since exited the market underwrote organisations that have been unable to obtain cover. The response by insurers that have made underwriting losses, experienced poor investment returns and are now required to allocate capital against new policies as well as increase the capital supporting run off business is to simply decline cover.

Although premiums have increased, probably to profitable levels, insurers are being highly selective about sources of new business as their ability to accept new risks is limited by the available capital and corporate willingness to allocate capital to the historically poorer performing and capital intensive classes. The ability of the industry to meet the increased demand on remaining insurers will be dependent on their ability to raise sufficient capital to support this reallocated business.

C.5 Comment

As noted in the March 2002 review, HIH's obvious dominance in the professional indemnity and public and product liability markets was likely to have removed an impediment to allow other insurers participating in these markets to continue with the introduction of premium increases.

It was also noted that at the time the Commission queried insurers regarding there pricing strategies they had had little time to increase premiums in the wake of HIH's liquidation. Insurers have now had sufficient time to increase premium rates and, as reported in section 2.7, have certainly done so. The extent to which these increases can be linked and the degree contributed by HIH's collapse could only be conjectured. Interviews with insurers and brokers confirm that the removal of the industry price setter removed a significant impediment to increasing premiums.

The influence of the liquidation of HIH on other classes was in the previous review only considered to be localised given the smaller shares of the market segments held by HIH.

However with respect to marine and aviation, where no significant increase was expected due to the continuing high returns being achieved the selected insurers reported an average increase of 10 per cent for this class.

D The economic theory of insurance and insurance firms

The standard explanation of why trade in insurance is beneficial to participants is straight-forward, but sheds limited light on the workings of insurance markets. To understand why insurance markets and companies exist and how they function requires recognition of the importance of information asymmetries in management and risk trading. Insurance companies are not simply firms that specialise in bearing risk. Rather, in a world of informational asymmetries, they are specialists in gauging, monitoring and most particularly managing risk. It is this expertise that enables insurance firms to cope with difficulties such as moral hazard and adverse selection.

The standard economic explanation of insurance is founded on conditions typical of perfect competition.[6] In these circumstances, insurance is mutually beneficial when it is:

- supplied by a firm which is indifferent to risk and fully diversified in the risks that it holds
- purchased by an individual who is risk-averse and therefore desires the service.[7]

A person who is risk-averse prefers surety to a risky situation. That is, they would be willing to pay a premium to avoid risk. For example, a doctor might earn $130K per year, but in each year also face a 10 per cent chance of losing a $100K law suit. Instead of this, the doctor might just prefer a guaranteed salary of as little as $100K per year with no risk of having to make a large pay-out on a law suit. The expected value of the more risky salary is $120K per year (= $130K – 10%*$100K). It exceeds the expected value of the stable salary (which is $100K) by $20K. In effect, the doctor is willing to give up $20K per year for stability.

An insurance firm, on the other hand, may be willing to bear risk so long as on average it can expect at least zero economic returns. For example, unlike the doctor, it would prefer an expected return of $120K per year (the return the doctor would have without liability insurance) to an expected return of $100K per year. If the insurance company's economic costs are less than what the doctor is willing to pay for surety, then a beneficial trade can take place. Assume the insurance company's cost in administering an insurance contract are $2K per year. The company's total expected cost of insuring the doctor is $12K (= $2K + 10%*$100K), but the doctor is willing to pay the insurance company as much as $20K per year. Beneficial trade will take place at some price between $12K and $20K, being closer to $12K the greater the degree of competition in the insurance market.

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[6] In technical terms, the conditions are:
- expected utility maximising risk averse individuals
- risks which are given with a known loss distribution
- no transaction costs.

Essentially these are the standard assumptions for perfect information and little or no costs involved in bargaining, writing contracts, etc. For a discussion of the development of the economics of insurance, see G Skogh, 'Mandatory insurance: Transaction costs analysis of insurance', Online Encyclopaedia of Law and Economics at p. 521.

[7] See K Arrow, *Aspects of the theory of risk-bearing*, 1965.

This simple explanation of why trade in insurance can be beneficial is quite powerful and can be extended in a variety of directions. However, on its own it is not very helpful in explaining the existence of insurance markets or companies. In particular, its focus on insurance firms merely as bearers of risk conceals the critical role they play as specialists in information about risks and in risk management. The assumptions of perfect competition imply that insurance could be obtained through the purchase of lotteries or contingent contracts—promises of a specific payment if a certain event takes place. There would be no need for insurance firms as such. People and firms of different risk preferences and profiles could write contracts which resulted in payment by one party to the other in the event of a given contingency. One could readily find the contingent contracts needed to provide the desired level of insurance, as the assumptions of perfect competition guarantee a full set of competitive contingent markets.

Insurance companies become plausible once it is recognised that:

- the likely risks, that is, outcomes and associated probabilities, of the insured activity are not known to all parties

- transaction costs are not zero.

When parties are differentially informed and transactions costs exist—both characteristics of actual markets—not all contingent markets exist. Insurance must be obtained through a different mechanism, that of trading contingent contracts. Without perfect information, resources must be spent evaluating risks. This alone will introduce elements of market power to some markets and make other contingent contracts unprofitable altogether. Similarly, the more general presence of transactions costs—for example, the cost of finding someone willing to buy or sell a particular contract—means many markets where only a few trades will ever take place will either not be competitive, or not be financial and therefore not exist. Consider, for example, the contingent market for promises to pay a fee if you have a car accident on the 8 March 2003 on the Hume highway if it is raining.

Actually, in a world where information and transactions are expensive, insurance markets face more substantial difficulties than simply a lack of contingent markets. Two are particularly well-known: moral hazard and adverse selection.[8] Both arise from information asymmetries between the insured and the insurer and at least conceptually can lead to market failure. It is the presence of these problems, at least as much as the lack of contingent markets, that explains the existence of insurance firms. In particular, insurance firms play an important role in ensuring such problems do not commonly result in market failure.

Moral hazard arises when purchasers of insurance behave in ways that increase the likelihood of an insurance claim being made. This can occur when avoiding such behaviour requires effort or care on the part of the insured, and the insurer cannot observe and hence seek to prevent or punish such actions. That is, moral hazard is caused by an information asymmetry

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[8] See, for examples specifically linked to insurance: Carlton, Dennis and Jeffrey M Perloff (1999) *Modern Industrial Organisation, 3rd Ed.*, Addison Wesley Longman, pp. 426–7 on moral hazard and p. 425 on adverse selection; R Cooter and Thomas Ulen (1988) *Law and Economics*, Harper Collins, pp. 65–67; Polinsky, A. Mitchell (1989) An Introduction to Law and Economics, Little Brown, 56–57; Jean Tirole, (1988) *The Theory of Industrial Organisation*, MIT Press, pp. 34–5 on moral hazard and p. 109 on adverse selection; and Kip W Viscusi, John Vernon, Joseph E Harrington, Jr (2000) *Economic of Regulation and Antitrust*, MIT Press, p. 749 on moral hazard.

that favours the insured over the insurer.[9] For example, a person with an uninsured house would likely be more careful in storing flammables than the same person, once the house is insured (at least insofar as such behaviour cannot be observed by the insurer and contracted against). The uninsured person is more likely to appropriately weigh the costs of not behaving preventatively (having the house burn down) against the costs of undertaking such actions because they bear the substantial risk of their actions.

Moral hazard may also arise simply because the cost of contracting can make it impossible to properly specify the full range of appropriate behaviour that the insurer would ideally expect. For example, it may be unwise to mop a passageway when it is in use, or use a slippery wax or polish on the floor, or allow children to play with marbles in the passage, and the insurer may wish to avoid liability in those and similar circumstances, but no insurance contract can be qualified by reference to all such behaviour. As before, the insured party, even where her or his behaviour cannot be concealed, is likely to be less concerned about avoiding such risky behaviour than if she or he was uninsured.

The presence of moral hazard raises the costs of insurance. If an insurance contract reduces, in a way the insurer cannot contract against, the degree to which the insured bears the consequences of her or his actions, then efficient preventative action which would have taken place absent moral hazard, may not occur. This increases the insurer's risk and so must raise the price of insurance. In some circumstances, moral hazard could threaten the viability of particular lines of insurance supply.

Adverse selection can prevent what would otherwise be efficient contracting for insurance from taking place. That is, adverse selection is another problem of asymmetric information between the insured and the insurer. When the insurer cannot identify individual risks (because the cost of individual appraisal is prohibitive), it must set premiums that reflect average risks over a group. If the premium cost exceeds the expected benefits of insurance to low risk members of the group, then they will prefer self-insurance. Of course, the removal of these low risk parties from the insurance pool raises the average level of risk, so insurance premiums must be set higher. Quite possibly more potential purchasers will seek to self-insure. The net result of this process, whereby 'the good' can be said to 'drive out the bad', can be too little insurance. The (equilibrium) point at which all in the group for which the premium is set are willing to purchase insurance (which may be zero), may not be optimal absent the information asymmetry. In particular, if any sub-group could be profitably served, if they could be identified, then a beneficial trade is foregone.

In well functioning although not perfect insurance markets both moral hazard and adverse selection will remain intrinsic problems. It is reasonable to manage these issues sensibly since in general it is not obvious that regulatory action could achieve perfect outcomes, indeed there is little empirical evidence of substantive market failure due to either of these sources.[10] As compared with an idealised world if too little precaution is taken, too few contracts may be written at too high prices. Such 'failure' signals a profit opportunity to specialists in

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[9] See, for example Y Kotowitz, 'Moral hazard', *New Palgrave Dictionary of Economics*: 549-551, 1991.

[10] Harold Demsetz, 'Perfect competition, regulation and the stock market', in Henry G. Manne (ed.) *Economic Policy and the Regulation of Corporate Securities*, Washington DC: American Enterprise Institute, 1969, pp. 1–22.

estimating and managing risk and the profit motive has led insurance companies to play a central role in these areas. For example, moral hazard is reduced:

- through the use of deductibles and coinsurance, thereby placing some burden on the insured

- by finding simple means of identifying clients and risks for which moral hazard is more likely to be an issue so they can be excluded from insurance pools

- by identifying simple means of reducing risk, such as requiring on-going education for professionals, and requiring readily verifiable use of certain safety equipment in given circumstances (like helmets, fire extinguishers, speed regulators, deadman hands, etc.).

Similarly, adverse selection can be reduced:

- by finding better means of partitioning different insureds, including by screening for existing conditions

- by aggregating types of insurance (if consumers' risks are not correlated over different risks)

- by encouraging individuals to reveal their risk profiles (deductibles linked with premium payments can be used to elicit such revelations).

Insurers, their agents and brokers also specialise in the nitty gritty of their particular area of coverage, not only to be able to gauge risks, but in finding ways of reducing it. As a result, they can profitably provide information that otherwise would not be available to their clients and civil society at large as to what is risky behaviour and what can be done to reduce risk. Such information is often very costly to find, and would be out of the reach of most, if not all of their individual clients. Further, such information is essentially a public good, so, absent an insurance company, difficult for civil society to produce.

In summary, transactions costs and lack of full information, undermine the possibility of insurance based simply on differences in risk aversion. Contingent contracts are no longer possible and instead moral hazard and adverse selection can occur. In this environment, firms can make profits by investing to gain comparative advantages in pooling and distributing information to compete in the provision of insurance.[11] Premiums are set to recoup claim and administrative costs, and to earn a return on assets. Where competition is robust—as seems typical of most insurance markets—premiums are constrained by the offerings of rivals. Firms can increase their profits to the extent that they are able to overcome problems such as moral hazard and adverse selection, and insurance companies are characterised by their ability to manage risk reducing such difficulties.

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[11] This institutional approach to financial intermediation was first applied to banks. G Benson, and C Smith, 'A transactions cost approach to the theory of financial intermediation' 31 *Journal of Finance* 215-231, 1976.

All, however, may not be perfectly well in Australia's insurance markets, as suggested by the empirical observations outlined in sections 3.2 and 3.3. The market is experiencing a degree of difficulty that suggests the possibility of some kind of market failure calling for government action. It is to such possibilities that section 3.5 is devoted. However, before turning to these, it will be helpful to provide a short discussion of what is meant by economic efficiency in general and with specific application to insurance markets.

D.1 Economic efficiency

In evaluating the state of a market it is usual to make judgements with regard to efficiency. In economics, a situation is efficient when no change can be made that improves at least one person's position without harming someone else. This is simpler to say than to make operational. In so doing, typically three aspects of economic efficiency are emphasised:

- Productive efficiency or operating efficiency, which refers to a situation where goods and services are provided at minimum resource costs. Pricing indicators such as premium levels and the proportion of premiums levels that are attributable to administrative costs provide indications of productive efficiency.

- Allocative efficiency, which ensures that at any point of time resources cannot be reallocated in a way that makes someone better off without making someone else worse off. An example from insurance would be a situation where a risk-averse individual was willing to meet the costs of insurance demand for insurance exceeded supply and yet moral hazard was demonstrably absent. Typically, allocative efficiency requires productive efficiency, but there are times when the latter is preferred to the former.[12]

- Dynamic efficiency which refers to a situation where there are optimal incentives to respond to changing consumer preferences and invest in technological changes which increase the productivity growth of the industry. For instance, the industry's capacity to develop more effective actuarial methods (participants revising and improving data collection) and ultimately risk management is an indication of the dynamic efficiency. Another example would be the industry's effectiveness in the provision of new forms of insurance to cover emerging forms of risk. In market economies, allocative and dynamic efficiency often clash. Allocative efficiency (which examines resource allocation within a given period) in general prefers prices that do not recover sunk costs (since typically more consumption can be achieved at no additional resource cost to society if prices do not reflect such costs)[13], but such prices remove the incentive to make sunk investments (for example, in research to innovate). Dynamic efficiency emphasises the benefits gained by allocating resources over different time periods, and hence recognises that sometimes a

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[12] Productive efficiency may require a limited number of producers and perhaps even one (the case of a natural monopoly). The resultant lack of competition may undermine allocative efficiency, and it may be that at least one person can be made better off without making anyone worse off by having more, but productively inefficient, suppliers.

[13] An exception occurs when marginal costs rise sufficiently to allow recovery of sunk costs through rents earned on inframarginal units.

loss in allocative efficiency in one or even many periods, can, over time, make at least one person better off without making anyone worse off.

In short, none of these aspects of efficiency should be emphasised to the complete neglect of another. For instance, short run capital constraints may raise premiums to levels that are not allocatively efficient, yet this may be the most efficient way of restoring the industry's capacity to insure. Thus the short term allocative efficiency cost of too high premiums, may be outweighed by long term gains in dynamic efficiency.

It is also important to understand that even where insurance markets are 'well-functioning', coverage is never available to all who want it due to price exclusion. That is, efficient insurance markets exclude some customers on the basis of price. Further, prices in such markets vary with underlying costs and hence degrees of coverage also vary. For example, the marginal cost of capital to insurance companies can vary sharply and this is an important component of insurance premiums. Insurance prices will rise as the marginal cost of capital to insurance firms also rises, putting coverage out of the reach of some. When the marginal cost of capital falls, prices will also fall and more insurance will be issued. With fixed costs associated with supplying certain kinds of insurance, such cost variations can even lead to types of customers or lines of insurance being temporarily or permanently discontinued.

However, to say that in an efficient market price and coverage may vary does not mean that there can be no efficiency problems in insurance markets. As already noted, the difficulties encountered by some Australian policyholders of public liability and professional indemnity insurance (discussed in sections 3.4.1 and 3.4.2) may suggest otherwise.

E. Sampled insurers

The Commission issued a request for information on premium increases and claims experience to selected insurers. All insurers responded although there was no statutory requirement for them to comply.

Responses were examined for the following insurance companies:

- AAMI
- ACE Insurance
- AIG
- Allianz
- CGU
- Chubb Insurance Company

- Dexta Corporation
- Gerling Australia
- Insurance Australia Group
- Liberty Mutual Insurance Company
- Lumley General Insurance
- QBE Insurance Australia
- QBE Mercantile Mutual
- Royal and SunAlliance
- Suncorp Metway
- Zurich

F. Components of profit

Total profit of an insurance company is derived from two main sources; investment income on shareholders' funds and insurance profit. Insurance profit is derived from underwriting but is not directly disclosed in financial statements. Insurance profit consists of the underwriting profit **plus** investment income attributable to the assets supporting the insurance operations.

In this appendix each component of profit is described together with the process for allocating investment income between shareholders' funds and the insurance business. It also summarises the main components of the accounting standard that drives profit reporting and disclosure to APRA.

F.1 Underwriting profit

Underwriting profit is equal to earned premium, less incurred claims and expenses, as shown in the insurer's accounts. Both earned premium and incurred claims allow for movement in the technical provisions. These technical provisions are established in respect of premiums relating to cover after the balance date (unearned premium reserve F.4.1) and claims incurred before the balance date but not paid (outstanding claim liabilities F.4.2). These reserves are the primary source of investment revenue supporting insurance profit.

F.2 Investment income

Investment income is the investment return from all sources, as shown in the insurer's accounts. As indicated above, investment income can be thought of as coming from two different sources.

The first source of investment income is that earned on the capital supporting the general insurance company. This consists of initial capital subscribed, other capital raisings and retained profits.

The second source of involvement income is that earned on the insurers' technical reserves. The largest of these are the provisions for outstanding claims and the unearned premium reserve.

F.3 Accounting standards (AASB 1023)

For all balance dates after 30 June 1992, annual returns for general insurance business that are filed under the Corporations Act follow the guidelines set out in accounting standard AASB1023 (private sector) and AAS26 (public sector) with respect to the financial reporting of general insurance business.

Broadly these accounting standards require assets marked to market with a consistent approach to valuing liabilities. Introduction of these standards sparked considerable debate as to their appropriateness; debate which still continues in some quarters.

F.3.1 Definition of premiums

Premiums are generally considered to include levies and charges but do not include stamp duty. Premium is earned from the date that risk is attached to that premium and is then earned in accordance with the pattern of risk. Typically, this is calculated in proportion to days of policy cover but some classes have an unusual exposure pattern (e.g. consumer credit) requiring a different approach.

APRA statistics up to 30 June 2000 are all before the introduction of The New Tax System (TNT). Statistics in the 30 December 2001 APRA report are understood to be inclusive of GST.

F.3.2 Outstanding claims liabilities

Outstanding claims liabilities are recorded as the discounted present values of expected future payments. The expected payments include IBNR (incurred but not reported) claims, future payments on claims already notified and management expenses associated with those claims.

Future payments are discounted using a rate described in the relevant Accounting Standard as a 'market determined, risk adjusted rate of return'. Disclosure requirements include the undiscounted claims amount, the reported outstanding claims liability and the average weighted expected term to settlement from the balance date of the claims.

Average claim inflation and discount rates for the year after the balance date and all subsequent years are also shown, as well as claims expense split into current and previous years.

F.3.3 Deferred acquisition costs

Deferred acquisition costs are reported in accounts as assets and are amortised over the financial years in which the expenses incurred will benefit the insurer. Deferred acquisition costs include commission or brokerage fees paid to intermediaries, selling, administrative and premium collection costs associated with writing new policies or renewal business. The amount that may be deferred is limited by the accounting standard so that anticipated claim costs on the unearned business plus deferred acquisition costs do not exceed the total of unearned premiums.

F.3.4 Reinsurance

The premiums that are paid for reinsurance (i.e. outwards reinsurance premiums) are considered an outwards reinsurance expense. Inwards reinsurance and retrocession expenses are subject to the same accounting procedures as premium revenue. Reinsurance claims reserves and other recoveries are accounted for when they can be reliably measured.

F.3.5 Investment income

Investment income consists of dividend and interest payments as well as both actual capital gains made on the sale of assets and the unrealised capital gains on assets according to market valuation.

F.3.6 Expenses

Management expenses are split up into 'Other Underwriting Expenses' that refer to expenses that are related to the underwriting result and 'General and Administration Expenses'.

F.3.7 Prudential margins

Many insurers hold a provision in excess of the central estimate of the outstanding claims liability in order to increase the probability that they ultimately prove adequate. APRA statistics do not disclose the level of these margins. In this report we have assumed that on average a 10 per cent prudential margin is included in insurers' provisions.

F.3.8 Discount rate

Accounting standard AASB1023 states that:

> The discount rate or rates to be used in measuring the present value of the expected future payments shall be the rate or rates of return that the insurer anticipates it could earn if sufficient funds were available to meet claims liabilities as they fall due. The discount rate or rates shall be determined by reference to market-determined risk-adjusted rates of return appropriate to the insurer.

This is interpreted by insurers in many ways ranging from a conservative view in which the yield on Commonwealth Government Securities used raised to a more optimistic return, which capitalises all future investment profit. The use of yields from Government Securities is considered by much of the industry to be conservative and a more usual practice is to use the risk-free rate of return plus 1 per cent.

F.4 Tax ruling IT 2663

Tax ruling IT 2663 sets out a set of taxation rules that addresses the basis for claiming a tax deduction for certain liabilities.

F.4.1 Unearned premium provisions

Provisions for unearned premium may be created by a general insurance company and effectively defers premium income until a later year of income. The Commissioner of Taxation recommends the use of the '365ths' or 'daily' basis (pro-rating the earning of premiums over two accounting years based on days of cover) to calculate the unearned premium provision at the end of the year. If an insurer wishes to use another method of calculating the unearned premium provision it must be justified. The premium income that is allowed to be deferred is the net premium income, after deducting acquisition costs and tax deductible reinsurance.

F.4.2 Outstanding claim provisions

Insurers are allowed to make a deduction in respect to provisions established to meet outstanding claims, including claims that are IBNR. The Commissioner states in IT 2663 that the provision for outstanding claims should include notified claims and IBNR claims, the costs of litigation, the costs of investigation, assessment and settlement, future investment earnings, reinsurance recoveries, and other recoveries. The inclusion of 'future' means that the outstanding claims provision should also take full account of both inflation and super-

imposed inflation. An allowance is also made in IT 2663 for the uncertainty present in the outstanding claim provision by allowing a prudential margin to be included in the provision.

F.5 APRA's new prudential standards

In 2001 APRA introduced new regulatory controls for general insurance companies that become effective on 1 July 2002. These prudential standards are contained in:

- GPS 110 capital adequacy (sets out the minimum capital requirement (MCR) for general insurance companies).

- GPS 120 assets in Australia (describes when assets will be counted in Australia as required for section 28 of the *Insurance Act 1973* and capital adequacy for foreign insurers in GPS 110).

- GPS 210 liability valuation (principles for the measurement and reporting of insurance liabilities).

- GPS 220 Risk Management (provides guidance on the sound and prudent management an insurer)

- GPS 230 reinsurance arrangement (expectations for reinsurance to ensure an insurer has a 'high' likelihood of meeting its obligations).

- GPS 410 transfer and amalgamation of insurance business (requirements for transferring or amalgamating insurance business).

These prudential standards are supported by extensive guidance notes, which provide greater detail of how the prudential standards are to be interpreted and implemented.

GPS 110 sets out a 'prescribed' basis for determining the minimum capital required by an insurer. This prudential standard effectively increased the level of capital required to support insurance business. The analysis conducted for this report applies the new minimum capital requirements when determining the return on capital for the various classes examined (refer section 4). The approach for allocating capital to each class is outlined in appendix B.6 below.

F.6 Allocation of capital and investment income

Insurance profit is the sum of the underwriting profit and investment income attributable to the business. The level of investment income attributable to the business will include the returns on technical provisions and allocated capital.

Although technical provisions are reported to APRA and hence known, capital supporting insurance business, until recently, has been ill defined. For the purposes of this review capital has been allocated to each class by applying the minimum capital requirement (MCR) guidelines in APRA's new prudential standard (GPS 100).

It should be noted that this approach produces a minimum capital allocation. Insurers will actually hold a higher level of capital. Higher capital will weight the return on capital result towards actual investment earnings; effectively diluting the effect of a good underwriting result. In essence the higher the level of capital held the more an insurance company behaves like an investment company.

The MCR guidelines contain three parts, the Insurance Risk Capital Charge, Investment Risk Capital Charge, and the Concentration Risk Capital Charge. These are described below.

F.6.1 Insurance Risk Capital Charge (APRA GGN 110.3)

Insurance Risk Capital Charge consists of the **Outstanding Claims Risk** and the **Premium Liability Risk**.

- **Outstanding Claims Capital Charge** is determined by multiplying the net outstanding claims liability for each class of business by the specified **Outstanding Claims Risk Capital Factor** for that class of business.

The outstanding claims risk capital factors are reproduced in table F.1.

Table F.1 Outstanding Claims Risk capital factors

Class of business	Outstanding Claims Risk Capital Factor
Householders Commercial motor Domestic motor Travel	9%
Fire and ISR Consumer credit Mortgage Other accident Other	11%
CTP Public and product liability Professional indemnity Employers liability	15%

1 Source: Table 1—APRA guidance note GGN 110.3-3

- **Premium Liability Risk Capital Charge** is calculated as the premium liability (assumed to be the unearned premium reserve) multiplied by the Premium Liability Risk Capital Factor for that class of business, which are reproduced in table F.2.

Table F.2 Premiums Liability Risk Capital Factors

Class of business	Premiums Liability Risk Capital Factor
Householders Commercial motor Domestic motor Travel	13.5%
Fire and ISR Consumer credit Mortgage Other accident Other	16.5%
CTP Public and product liability Professional indemnity Employers liability	22.5%

2 Source: Table 1—APRA guidance note GGN 110.3-3

3 The capital factors for premium liability risk are 1.5 times the capital factors for outstanding claims risk.

For the purpose of the analysis capital is allocated to each class each year by applying the factors in tables F.1 and F.2 to total reported provisions for outstanding claims liability and unearned premium.

F.6.2 Investment Risk Capital Charge (APRA GGN 110.4)

The **Investment Risk Capital Charge** is in response to the risk of adverse movements in the value of the insurer's assets and/or off-balance sheet exposures. The Investment Risk Capital Charge is calculated as a percentage (investment capital factor) of the value of investments held in specified asset classes. These investment capital factors range from 0.5 per cent for debt obligations of the Commonwealth Government through to 12 per cent for direct holdings of real estate and up to 100 per cent for unsecured loans to employees. Goodwill and other intangibles do not attract a capital charge as they do not count towards Tier 1 capital.

For the purpose of the analysis the Investment Risk Capital Charge is calculated for the whole industry by applying the investment capital factors to reported assets values for each class of business in Australia. The total Investment Capital Charge Risk was then apportioned to the insurance classes in proportion to technical reserves.

An **Investment Concentration Charge** applies to the risk arising from excessive exposure to a particular asset. Holdings in excess of the specified thresholds are subject to an investment capital factor of 100 per cent. The standard investment capital factor applies to the holding below the thresholds.

It is not possible to assess the level of Investment Concentration Charge that may apply to insurers and so is not included in the capital allocation in the analysis.

F.6.3 Concentration Risk Capital Charge (APRA GGN 110.5)

The Concentration Risk Capital Charge responds to the aggregation of insured losses. The capital is designed to cover risks associated with having a large number of policies in the same geographic area that can be adversely affected by a single catastrophic event. The concentration risk has the greatest impact on fire and ISR, commercial motor and domestic motor. The Concentration Risk Capital Charge is calculated with reference to an insurer's maximum event retention (MER).

Details of insurers MER are not available. Instead, figures provided by APRA from the industry 'road test' indicate that, out of the 53 insurers who participated, Concentration Risk Capital Charge represented 8.9 per cent of the total MCR. Based on discussions with participants in the 'road test' this converts to a 200 per cent loading of fire and ISR and 150 per cent for commercial and domestic motor. These loadings are somewhat subjective but should provide a reasonable allocation and illustrate the movement and the absolute return on capital that would have been achieved under the new regulatory environment.

F.6.4 Allocation of investment income

In the analysis investment income is allocated to each class by crediting 6 per cent to average technical provision and allocated capital. The rate of 6 per cent has been adopted for all years as a benchmark rate that could reasonably be expected (consistent with the yield on 10-year government bonds in recent years).

Investment earnings tend to be volatile and would distort the return on capital in some years. Therefore a fixed rate was allocated rather than actual investment earnings as the objective is to illustrate the contribution of underwriting to the overall result.