13 May 2002

Tony Abbott
President, Law Council of Australia
GPO Box 1989
Canberra ACT 2601 Fax 02 6248 0639

Dear Mr Abbott

Actuarial advice on public liability

1. Summary

- public liability insurance premiums have been as high as 0.20% of gross domestic product, and were about 0.15% of GDP in 00-01 (see 3.)
- the economic and social consequences of the unstable public liability insurance market seem minor, and there is no evidence of a crisis
- large premium increases should be bearable for most businesses, as public liability premiums are generally only a small part of their turnover
- some inherently unsafe activities may cease, and many others continue with more attention to risk management
- some startling increases in APRA claim number statistics were queried, and some large revisions resulted (4.1)
- APRA premium and claim payment figures may be more reliable, and have been used here
- claim payments have grown long-term as a proportion of GDP, increasing in the last 12 years about 5% pa faster than GDP (4.3)
- claim costs may fall in response to benefit reductions and better risk selection, then resume long-term growth
- insurer profits averaged about 18% over the 20 years to 96-97 (4.4)
- the substantial losses in the 4 years to 00-01 may reflect a more pessimistic view of outstanding claims, as well as premium-cutting by HIH

- an extension of the general insurance code of practice may be needed to ensure reasonable availability of cover and premium stability (5.)

- actuarial estimates for proposed reforms have proved very wrong, and it is important that detailed studies be done in advance (6.4)

- caps on economic losses will have negligible effects on claim costs (6.5)

- the proposed NSW and Queensland legal cost restrictions may discriminate severely against many types of claimant (6.6).

2. Purpose

You have asked us for a letter covering informally the following topics

- the economic and social seriousness of current problems

- the quality of the data underlying perceived problems

- past and likely future trends

- possible extensions to the General Insurance Code of Practice

- proposed changes (including some of those mentioned in the Trowbridge report on public liability, the Law Council's submissions, and Justice Spigelman's address to the Judicial Conference of Australia on 27/4/02)

- where possible, rough estimates of the consequences of the various proposals, together with the data and assumptions underlying the estimates

- if possible in the time, some comparative figures of insurance costs as percentages of gross domestic product in Europe and the USA.

3. Economic and social seriousness of current problems

Public liability insurance premiums in the year to 30/6/01 were probably about 0.15% of gross domestic product:

Premiums reported to APRA by private insurers	$806m
plus HIH premiums (assumed to be 22% of market))	227.33
estimated premiums for public liability	$1033m
divided by gross domestic product in 00-01	$671277m
estimated premiums as % of GDP	0.15%

Premiums reported by private insurers are from "Selected statistics on the general insurance industry year ending 30 June 2001" (www.apra.gov.au). They include product liability premiums. Gross domestic product figures are from table G9 of the

Reserve Bank's "Bulletin April 2002". Similar figures for earlier years are in A1.

The Trowbridge report of 26/3/02, titled "Public liability insurance - analysis for meeting of ministers 27 March 2002" said (page ii):

> "Although 2002 prices are expected to be an average of 30% higher than 2001 prices, we will find that -
>
> - 20% increases will be common
> - increases of 50% to 100% will not be uncommon
> - some policyholders will be asked for increases of 500% to 1000%
> - some policyholders will be denied cover altogether"

Large premium Increases should be bearable for most insured businesses, as public liability premiums are generally only a small part of their turnover. An extreme example is quoted in "The Age" of 15/3/02, of the average cost of public liability insurance for a horse trail ride-provider increasing from $2,500 in June 2000 to $20,000 in September 2001. The operators are described as tending to employ 5 to 15 people, so their premium increases might be of the order of 5% to 15% of revenue. Passing on higher insurance costs may reduce the numbers of customers, but should not put operators out of business. A survey of 263 tourism operators, published by the Queensland Tourism Industry Council on 8/5/02, found

> "one in six business saying they may have to cut their number of casual and part-time staff"

The Trowbridge report comments (page 10):

> "The reduced number of insurers in the market has been content to take modest volumes of business at premium rates they regard as acceptable (perhaps even attractive) and, as a result, some business has not readily found an insurer"

They noted (p30)

> "Information we have obtained from submissions, media reports and our interviews indicated that affordability problems are widespread including in
>
> - community events
> - sporting events
> - tourism and leisure operations
> - retail industry
> - local non-government community groups that operate under the umbrella of local government"

Our report of 4/4/02, "Public liability insurance for not for profit community groups", concluded that Civic Mutual Plus should be able to provide public liability cover to selected not for profit community groups, without endangering its financial viability. Civic Mutual Plus provides public liability and professional indemnity insurance to members of the Municipal Association of Victoria, and may be willing to allow access to our report.

Other community or industry insurance pools are likely. Major sporting organizations appear to be still buying public liability insurance at acceptable prices. Pony clubs and life-saving clubs have had particular difficulties, and some may not survive without help. Bachelor and spinster balls, although part of Australia's rural tradition, have high fatality rates and may be unable to buy insurance. The tourism and retail industries will have been irritated by their unpredictable public liability premiums, but will largely pass on the costs to their clients.

The economic and social consequences of the unstable public liability insurance market seem minor. Some inherently unsafe activities may cease, and many others continue with more attention to risk management. An extension of the general insurance code of practice may be needed to ensure reasonable availability of cover and premium stability (see 5.). But there is no convincing evidence that major reductions in the benefits to injured persons are needed.

4. Data on public liability

4.1 Unreliable APRA data

In a letter of 15/3/02 to Graeme Thompson, Chief Executive Officer of the Australian Prudential Regulatory Authority, I asked for reasons for some extraordinary increases in claim numbers for four classes of insurance. These claim numbers are set out in the table below, together with revised figures advised to me by email from Kent Wong of APRA on 26/4/02:

Class	1998 Original	1999 Original	2000 Original	1998 Revised	1999 Revised	2000 Revised
Professional indemnity	14,000	19,000	166,000	12,000	17,000	30,000
Public/product liability	55,000	72,000	88,000	48,000	69,000	89,000
Mortgage	1,000	0	114,000	1,000	1,000	1,000
Consumer credit	37,000	85,000	284,000	77,000	90,000	142,000

I asked Kent about the 260,000 public liability claims shown for the year ending 30/6/98 on page 67 of the Trowbridge report. Kent advised me that the APRA website now shows this figure as 53,000. In a letter of 8/5/02, Kent answered some questions I had put to him about the reliability of APRA data:

- from December 1997, new ISC forms required insurers to report policies and claims in thousands, rather the actual numbers previously used, and many insurers continued to report in actual units rather than thousands, giving greatly inflated figures

- these errors have been detected as part of APRA's on-going review, and corrections made to the "Selected statistics" available on APRA's website

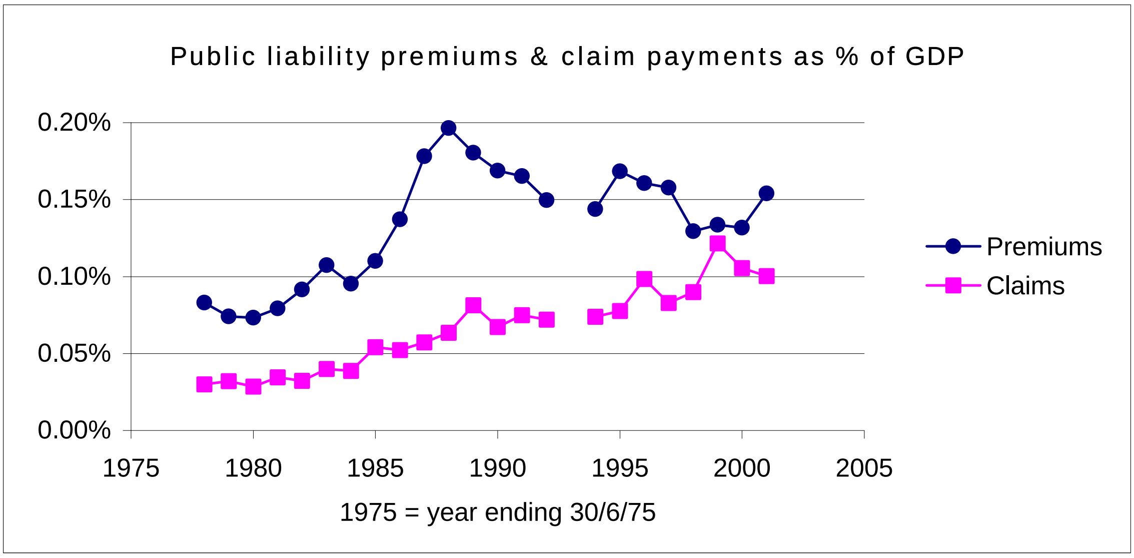
- the premium and claim statistics for each class of insurance are subject to a number of validation and derivation checks within and across forms

- with the new general insurance regime taking effect from 1/7/02, insurers will have new reporting requirements and a new system comprising detailed validation and derivation checks.

APRA revised its statistical system in December 1997, and it appears as if the subsequent claim number statistics are deeply flawed. Unfortunately, some of these claim numbers have been widely used to argue for sweeping changes. In particular, the Insurance Council of Australia has repeatedly referred to the increase from 55,000 public liability claims in 1998 to 88,000 in 2000. I do not think that recent APRA figures on public liability claim numbers are reliable enough to allow any conclusions to be safely drawn.

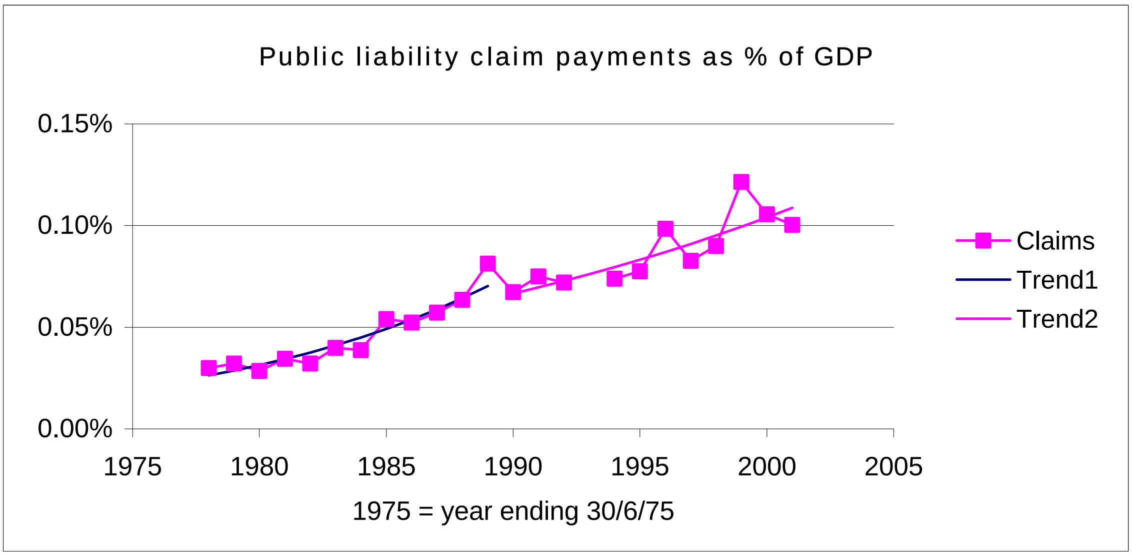
Premium and claim cost statistics published by APRA for each class of insurance may be more reliable than claim numbers, as APRA should be able to balance these against revenue account and balance sheet totals for each insurer. Long-term comparisons are needed, as APRA's statistics can be affected by balance date changes for individual insurers, by missing data from failed insurers, and by conversions from government to private insurance. APRA no longer publishes the accident year analyses needed to allow the outcome of each year of cover to be separately analysed.

4.2 Public liability premiums & claim payments



The above estimates show that public liability premiums climbed sharply from about 0.08% of GDP in 77-78 to almost 0.2% of GDP in 87-88. Since then premiums have been lower, and may have been about 0.15% of GDP in 00-01 (after correcting for the non-reporting of HIH premiums).

4.3 Trends in public liability claim payments



Claim payments have increased from about 0.03% of GDP in 77-78 to about 0.1% in 00-01. A trend line fitted to the first 12 years shows a growth rate of about 9.4% pa, and one fitted to the last 12 years has a growth rate of about 4.6% pa above GDP.

The reasons for continuing claim growth are complex and largely unresearched. Some possibilities are

- payment for gratuitous care by relatives (Griffiths v Kerkemeyer 1977)
- the 3% discount rate for future economic losses resulting from the High Court's 1981 decision in Todorovic v Waller
- the more extensive requirements that certain classes of person, such as office tenants, buy public liability insurance
- the wider use of no-win no-fee arrangements
- a greater supply of lawyers, leading to more intensive competition amongst them
- more careful case preparation by the majority of lawyers
- the introduction of compulsory superannuation in 1993
- increased life expectancies, leading to higher awards for future care
- the greater numbers of persons involved in high-risk activities
- the higher superannuation values arising from the assumptions and calculation procedures in the NSW's Supreme Court's 1999 decision in RTA v Cremona.

I have worked as a consulting actuary since 1971, preparing actuarial evidence in personal injury trials for much of that time. This role requires a working knowledge of the legal processes used to determine negligence and quantify losses. Apart from the issues mentioned above, I am not aware of any developments which would have significantly impacted on public liability costs. I do not think juries are responsible for any great cost escalation - I note that the Victorian WorkCover and TAC schemes prefer to have cases heard by juries. I understand that the High Court's 2001 decisions in Brodie and Ghantous apply only to local government, and only marginally increase or decrease the possibilities for successful actions.

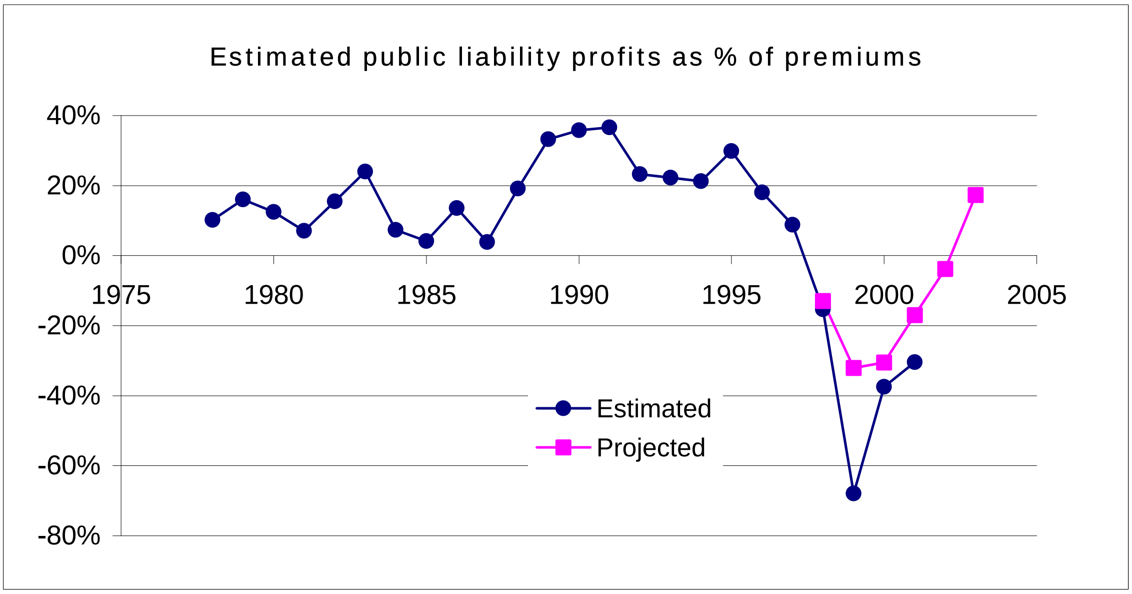
You asked me to comment on possible future trends. I suspect that

- foreshadowed legislative reductions in common law entitlements may reduce claim payments in NSW and Queensland, and possibly elsewhere

- more careful risk selection by the insurance industry will also help reduce claim costs in the short term

- long-term claim costs will climb gradually.

4.4 Estimates of insurer profits



We have estimated insurer profits from underwriting profits published by ISC and APRA, adding only investment earnings at 3-year bond rates (see A2). Estimated insurer profits have averaged 18% over the 20 years to 96-97 (A3). This average is much higher than the 5%-5.6% considered reasonable by the Motor Accidents Authority for compulsory third party insurers in NSW. Page 6 of the MAA's November 2001 report "CTP Insurer Profits" says

> "The MAA regards the indicative range of 5%-5.6% of gross premium as the minimum necessary to support CTP in NSW, especially in the current climate where the insurance industry reports that there has been a contraction in the

> capital available. This contraction is exacerbated by the terrorist events of September 2001 and their subsequent impact on insurers and reinsurers."

4.5 Projected profits from public liability insurance

The above graph also shows our projected insurer profits, obtained from the 96-97 profit level of 9% by using the premium index in Trowbridge's report of 26/2/02, and long-term claim growth at 4.6% pa. Reported profits in any one year can be strongly affected by changes in the optimism or pessimism underlying the provisions for outstanding claims. Our projections suggest that insurers will make a loss of about 4% in 01-02, and a profit of about 17% in 02-03, without any changes to legislation.

5. Extensions to the General Insurance Code of Practice

In a speech on 8/3/02, Raymond Jones, the President of the Insurance Council of Australia, noted the considerable success of the General Insurance Code of Practice, introduced seven years ago. ICA has now decided to totally overhaul the code, and wants to consult widely with members, governments, other industry organisations and consumer groups. Current complaints about sudden massive premium increases could probably be met by extending the code of practice to require reasonable premium stability.

Under section 113 of the Insurance Act 1973, insurers are required to comply with any code of practice approved by ASIC in relation to any class of insurance prescribed for the purpose of section 113. The present code of practice was approved by ASIC on 28/7/00, and is available on www.ica.com.au.

On 2/5/02 I put the following suggestions to Alan Mason, Executive Director of the Insurance Council of Australia.

> In 1.1 and elsewhere in the code, "consumers" may need to be changed to "insureds", as public liability clients are often businesses or community groups.
>
> An additional objective could be inserted between the present 1.2 (d) and (e):
>
>> "require insurers to provide reasonable premium stability to existing clients, and to accept new clients at reasonable premiums"
>
> A new (c) could be inserted in the definition of insurance business in 2.1:
>
>> "liability insurance"
>
> A new section 5, titled "Premiums", could be introduced:
>
> 5.1 Insurers shall renew the insurance of an existing client, at a premium not more than 50% higher than the previous premium, unless there is evidence that the risks under the policy have materially changed, or there has been significant past misrepresentation.

5.2 Insurers shall accept a new client, previously insured by another insurer, at a premium not more than 100% of the previous premium, unless there is evidence that the risks under the policy have materially changed, or there has been significant past misrepresentation.

5.3 Insurers shall contribute underwriting and claims data to statistical schemes intended to provide reasonable claim cost estimates for different risks.

The insurance industry may have earned a great deal of negative publicity by refusing cover to a very small volume of risks. A licence to operate as a general insurer presumably carries with it some obligation to provide insurance. Leaving some groups uninsured is an incentive for governments to create alternative structures.

6. Proposals for reform

6.1 Proposals in Trowbridge report on public liability insurance

Part C of the Trowbridge report of 26/3/02 was titled "A framework for looking at solutions". It started

> "In this section we give a structured approach to considering possible solutions. It is not part of our brief to recommend solutions. What we have done is to compile the various suggested approaches identified to us during our research and present them so that they can be considered in an orderly way."

They mentioned the following responses involving reducing the cost of claims

- change the rules for what constitutes negligence in certain situations
- exempt certain volunteers and organizations from negligence actions
- promote compliance with industry-specific standards as a valid defence in negligence actions
- cover volunteers and contractors by workers compensation rather than liability insurance
- allow valid contractual waivers of insurance for participation in inherently risky activities
- re-write the tort law to bring the standard of negligence back to a reasonable person's approach and away from strict liability
- introduce a threshold for general damages
- introduce caps on general damages, earnings loss or medical caps
- restrict certain heads of damages such as care provided by family members
- encourage or mandate the use of structured settlements for catastrophic injuries
- control legal advertising
- regulate legal fees
- change "no win no pay" arrangements
- change uplift fee arrangements
- increase the risk involved in unsuccessful litigation through costs arrangements
- mandate alternative dispute resolution systems

- an education campaign to change the increased litigiousness of our community.

They also listed 13 responses to the insurance market crisis, largely commercial in nature, aimed at altering the short term availability and price issues.

Page 16 of the Trowbridge report notes that they obtained information from

- submissions received and summarized by the federal government up to 19/3/02
- review of media reports and press articles
- state treasury officials dealing with the liability issue
- interviews with
  - Law Council of Australia
  - Insurance Council of Australia
  - Local Government Association (NSW)
  - 3 insurers, one reinsurer & 4 insurance brokers
- the registry of the District Court of NSW.

Trowbridge did not mention the extension to the general insurance code of practice proposed in my submission of 15/3/02 (it may not have been included in the summary provided to them). As their report was prepared in about 3 weeks, they had little opportunity for extensive interviews or data collection.

6.2 Proposals of Justice Spigelman

In a speech on 27/4/02 to the Judicial Conference of Australia, the Chief Justice of the NSW Supreme Court suggested some reforms

- proportionate liability for property damage or pure economic loss
- reconsider the circumstances in which offsetting benefits, such as the returns from private insurance or superannuation entitlements based on employer contributions, are taken into account by way of reducing damages otherwise payable
- reduce death benefits for relatives when the deceased has been guilty of contributory negligence
- limit the amount recoverable for economic loss
- reconsider the basis on which damages are payable for gratuitous services
- changing the test of forseeability of risk so that it excludes a broader area than risks that are "far-fetched or fanciful"
- establishing that the remoteness of risk is always pertinent when determining whether a duty has been breached
- restricting the circumstances in which one person must guard against the failure of another to take care for their own safety
- reintroduce the test for professional standards, the effect of which was that it is not open for a court to find a standard medical practice to be negligent
- reduction of the interest payable on damages in those states where, in recent times, they have been between 4 and 6 percentage points above that of other states
- increase the discount rate used to determine the present value of future losses above the rate determined by the High Court in 1981.

6.3 Proposals by Law Council of Australia

Chapter 8 of the Law Council's 15/4/02 submission to the Heads of Treasuries Insurance Issues Working Party includes the following

- government facilitation of structured settlements
- government facilitation of insurance coverage
- collection of appropriate claims data by both the insurance industry and APRA, so that the need for and type of any broad based tort reform can be sensibly considered
- abolition of the automatic assumption of the award of costs to a successful party in cases where an award was made under a prescribed limit, or
- restricting costs payable to the successful party to a fixed percentage of costs of the award made under a prescribed limit
- a review of uplift fees
- a review of rules of court to ensure that costs can be awarded personally against lawyers to penalise the unjustified pursuit of unmeritorious arguments
- a cap on economic loss at $2,700 a week or higher
- disclaimers to allow the assumption of risk by properly informed persons undertaking inherently risky pursuits
- legislation to provide a defence to a suit for injury caused by a person who in good faith renders aid to a person in distress
- volunteer protection legislation
- reform of pre-proceeding procedures such as the mandatory exchange of expert reports and the conduct of negotiations
- legislative empowerment of professional bodies to regulate advertising and restrict particular manner and content
- the formation of an expert taskforce
- examining, by way of a Law Reform Commission reference, the operation of the law of negligence.

6.4 Relevance of actuarial advice on reform proposals

Actuaries may be able to provide some estimates of the financial consequences of proposed changes on individuals and insurers. Their ability to make reliable estimates will often be hampered by lack of relevant data. Collecting and storing data that are not routinely used can be costly and unreliable. Most insurance data systems thus keep mainly data needed under current legislation, and may have very little capacity to supply data relevant to proposed legislative changes. Unless the proposed legislation has already been used elsewhere for some time, it may only be possible to make very rough estimates of its consequences.

Some of these rough actuarial estimates have proved very wrong, with major consequences for insurers or the injured. For example, on 12/11/97 the Victorian government eliminated common law access to persons injured at work, and replaced maim benefits with non-economic loss benefits based on the 4th edition of the American Medical Association's "Guides to the evaluation of permanent impairment". These changes were purported to leave unchanged the total payments to workers. Following repeated complaints by trade unions and plaintiff lawyers about the inadequacy of the non-economic loss benefits, an actuarial study in 2001 (still unpublished) showed that the non-economic loss benefits were only worth about one-third of the benefits they replaced. No corrective action has yet been taken.

As another example, the NSW government toughened the threshold and taper for general damages for persons injured in road accidents from 26/9/95. For accidents from 5/10/99, an 11% AMA 4 threshold for general damages was introduced. Analyses of insurer profits released by the Motor Accidents Authority in November 2001 show that insurers have been making excessive profits from 95-96 on.

The Victorian example shows that it can be very difficult to correct legislation based on wrong actuarial estimates. As the Law Council proposes, it is important that proper data collection and analysis be done in advance. This may require detailed evaluations of the circumstances of hundreds of representative individuals, rather than guesses based on bulk data.

6.5 Caps on economic loss

The NSW draft Civil Liability Bill requires the court to disregard any net weekly earnings in excess of $2,712 a week (section 12(2)). This corresponds to a pre-tax income of $250,000 a year, an income that only about 1% of Australian adults are likely to exceed. Ignoring the small part of their income above this limit will have negligible consequences for insurance costs, particularly as earnings losses are a minor part of total awards and costs.

The Queensland premier's media statement of 7/5/02 proposes a limit of 3 times average weekly earnings on economic loss. In November 2001 Queensland average weekly earnings were $640.8 per week, and 3 times this would be $100,000 a year before tax. About 2% of Australia's adults might exceed this limit, but again the consequences of ignoring the excess above this level would be negligible.

6.6 Restrictions on costs for personal injury claims

The NSW draft Civil Liability Bill proposes that, if the amount recovered on a claim for personal injury damages does not exceed $100,000, the cost recoverable for legal services to the claimant is 15% of the amount recovered or $5,000, whichever is the greater. These limits do not apply to property claims, or to defendants.

The Queensland proposals are even more severe:

- no costs or outlays on claims settled for $30,000 or less unless the settlements or judgement exceeds the mandatory final offer of the insurer

- limit awards of costs and outlays for claims settled for more than $30,000 but not exceeding $50,000, to a maximum of $2,500.

The NSW and Queensland proposals may discriminate severely against many different types of personal injury claimant, many of them mentioned on page 40 of the Law Council's submission to the Heads of Treasuries Insurance Issues Working Party

- low income earners
- part-time workers
- the elderly
- stay-at-home parents
- the unemployed
- pensioners
- youth
- persons with poor English, and indigenous persons
- the disabled
- females
- persons who have made a partial return to work.

Public liability claims are likely to be costly to litigate as fault has to be proved. Cost limits on claimants, without corresponding limits on defendants, may lead to abuses of process by defendants. Before proposals such as these are legislated, there needs to be a soundly based statistical study of the likely consequences for a representative sample of claimants.

7. Distribution in full

Please give the whole of this document to any third party, as parts may be misleading in isolation.

Yours sincerely

Richard Cumpston

Appendix A : Public liability estimates

A1 ISC & APRA data on premiums & claim payments

Year	Direct premiums Private $m	Direct premiums Public $m	Direct claims paid Private $m	Direct claims paid Public $m	Gross domestic product $m	Direct premiums as % of GDP	Direct claims as % of GDP
77-78	74.417	4.842	26.624	1.928	95481	0.083%	0.030%
78-79	81.166	6.322	32.639	2.584	109569	0.074%	0.032%
79-80	91.107	6.648	32.506	3.047	124503	0.073%	0.029%
80-81	111.973	9.364	45.850	2.811	141067	0.079%	0.034%
81-82	147.265	16.314	46.668	5.091	160674	0.092%	0.032%
82-83	186.533	21.924	63.092	6.117	173585	0.107%	0.040%
83-84	186.634	28.863	68.081	7.886	195752	0.095%	0.039%
84-85	237.987	37.730	108.683	8.244	216296	0.110%	0.054%
85-86	330.992	52.522	118.102	8.150	241280	0.137%	0.052%
86-87	472.329	79.256	136.119	15.571	265004	0.178%	0.057%
87-88	587.758	81.303	172.151	17.999	299168	0.196%	0.064%
88-89	604.623	91.096	225.012	47.397	335136	0.180%	0.081%
89-90	618.859	66.038	209.346	37.437	366878	0.169%	0.067%
90-91	621.955	64.529	240.707	41.681	376501	0.165%	0.075%
91-92	584.721	65.695	243.052	38.489	390873	0.150%	0.072%
92-93					408001		
93-94	617.076		317.263		429255	0.144%	0.074%
94-95	764.326		352.064		453791	0.168%	0.078%
95-96	816.080		500.584		508245	0.161%	0.098%
96-97	841.523		441.813		533710	0.158%	0.083%
97-98	732.651		509.235		565963	0.129%	0.090%
98-99	790.966		718.415		591592	0.134%	0.121%
99-00	828.891		664.274		629212	0.132%	0.106%
00-01	805.896		525.433		671277	0.154%	0.100%

The above table gives direct premiums and direct claim payments in Australia, taken from "Selected statistics on the general insurance industry", published initially by the Insurance and Superannuation Commission, and then by APRA. Also shown are gross domestic product figures, from Reserve Bank Bulletins. The insurance figures are for office years ending in each year to 30 June. Figures for public liability insurers have been excluded after 91-92, as the subsequent figures included a considerable amount of government business not previously included in the published statistics. Most of the state government insurers previously selling insurance to the public were privatised or sold in the early 1990s. We are seeking 92-93 figures on private insurers. Product liability is included with public liability, as for most years the two categories are treated together in the insurance statistics.

We understand that figures for HIH are not included in the 00-01 premiums and claims. HIH were reputed to have about 22% of the Australian public liability market, so we have divided the 00-01 figures by .78 before calculating premiums and claims as percentages of gross domestic product.

A2 Profit estimates - private direct underwriters in Australia

Year	Net premium revenue in year $m	Net claims provision at start $m	Net claims paid $m	Under-writing expenses $m	Under-writing surplus $m	Interest $m	Profit $m
77-78	49.689	72.222	18.897	21.710	-5.342	10.405	5.063
78-79	55.787	88.548	24.824	24.799	-1.975	10.901	8.926
79-80	62.204	96.167	25.437	27.081	-5.712	13.489	7.777
80-81	74.627	119.804	37.171	31.048	-13.868	19.126	5.258
81-82	91.382	140.870	34.441	35.820	-12.548	26.671	14.123
82-83	119.593	174.845	44.833	45.401	-13.810	42.559	28.749
83-84	123.145	202.402	50.059	46.546	-30.865	39.868	9.003
84-85	158.878	280.548	86.601	61.181	-40.415	46.935	6.520
85-86	220.004	349.958	92.339	78.356	-37.294	67.216	29.922
86-87	301.545	456.116	114.672	113.994	-73.206	84.984	11.778
87-88	394.146	607.783	146.323	143.477	-39.899	115.356	75.457
88-89	424.017	719.826	140.180	146.220	19.538	121.378	140.916
89-90	472.020	857.453	165.140	163.351	-12.218	181.309	169.091
90-91	454.435	999.975	201.389	157.357	-18.297	184.625	166.328
91-92	412.843	982.189	255.282	155.709	-34.752	130.968	96.216
92-93							
93-94	475.136	1238.156	287.652	132.439	5.818	95.005	100.823
94-95	571.506	1374.132	331.626	168.988	21.285	149.189	170.474
95-96	611.510	1641.574	387.889	178.127	-55.691	166.274	110.583
96-97	636.849	1418.298	386.200	188.314	-94.374	150.271	55.897
97-98	598.204	1421.117	444.204	184.726	-194.381	102.632	-91.749
98-99	585.553	1753.341	625.494	217.936	-499.964	101.973	-397.991
99-00	665.419	2125.914	580.168	201.161	-386.368	137.060	-249.308
00-01	465.399	2127.184	462.613	214.649	-277.978	136.569	-141.409

From 97-98 on, net claims paid were assumed to be 84% of direct claim payments (based on 96-97). This assumption was used only in estimating investment income. Investment income was estimated as

3-year bond rate at start of year * (earned premiums + outstanding claims at start
- .5 * (claims paid + expenses in year))

This formula makes no allowance for market value changes resulting from interest rate changes.

A3 Trowbridge premium rate index

Date	Index	Change
Jun-93	100	
Jun-94	104	4%
Jun-95	102	-2%
Jun-96	90	-12%
Jun-97	76	-16%
Jun-98	68	-11%
Jun-99	72	6%
Jun-00	84	17%
Jun-01	99	18%
Jun-02	130	31%

The above index values are estimates from the graph on page 27 of the Trowbridge report of 26/2/02.

A4 Estimated profits as % of premiums

Year (1978= 77-78)	Profit as % of premium income	Projected profit based on 96-97
1978	10%	
1979	16%	
1980	13%	
1981	7%	
1982	15%	
1983	24%	
1984	7%	
1985	4%	
1986	14%	
1987	4%	
1988	19%	
1989	33%	
1990	36%	
1991	37%	
1992	23%	
1993	*22%*	
1994	21%	
1995	30%	
1996	18%	
1997	9%	
1998	-15%	-13%
1999	-68%	-32%
2000	-37%	-30%
2001	-30%	-17%
2002		-4%
2003		17%
Average in 20 years to 96-97	18%	

The above premiums as percentages of earned premiums are estimates from A2. Projected profits are based on the 96-97 estimated profit, allowing for subsequent changes in the Trowbridge premium index, as well as the continuation of the trend in the last 12 years of claims costs as a % of GDP increasing at about 4.6% pa. For example, the estimated profit margin in 02-03 was estimated as

all costs as a % of premiums in 96-97	91%
times factor to allow for 4.6% cost growth for 6 years	1.310
times premium index in June 96	90
divided by premium index in June 02	130
all costs as a % of premiums in 02-03	83%
subtracted from 100% to give profit margin in 02-03	17%