

# WORKING PAPERS IN ECONOMICS

**The Self-Destruction of  
Private Health Insurance**

by

**John Logan**

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## **Introduction<sup>1</sup>**

The main hypothesis of this paper is that the private health insurance system in Australia contains a built-in self-destruct mechanism. That mechanism consists of the regulations concerning community rating, together with the system of global subsidies that were set up under Medicare, as well as under earlier health policies. In order to defend this hypothesis, the paper first discusses the recent past history of private health insurance in Australia and how government policy has altered the parameters under which it operates.

The events that have taken place since 1976, when Medibank was first modified under the Fraser administration, illustrate the basic principle that people respond to economic incentives. In the case of private health insurance those incentives affect whether people are willing to continue to pay for the health insurance product. The main hypothesis therefore is that incentives created recently by health policy are such as to generate a continuous, and possibly accelerating, drift out of private health insurance and into the waiting lists of Medicare, or otherwise into the costs of self-insurance.

Health policy under Medicare has virtually eliminated medical insurance except for in-hospital medical services. In-hospital medical services provided to private patients can be looked at as jointly delivered along with hospital services with which they necessarily are combined; the regulations require that gap insurance cover for in-hospital medical services be bundled with the basic hospital table. The regulations also require basic table cover in order to purchase additional (ie supplementary) hospital cover from a registered health fund. Therefore in order to track consistent data series over the years both before and after Medicare, this paper confines attention to hospital insurance with the focus on the basic table.

We note at this point that the term "insurance" here refers to private health insurance, not to Medicare or State-funded free public hospital services. Indeed, the term "insurance" when applied to the latter is a misnomer for what really is a vast system of tax-funded subsidies.

We now take a walk through the history of hospital insurance coverage and policy changes that have had an impact on insurance take-up.

## **Trends in Hospital Insurance**

The history of hospital insurance coverage is illustrated in the various graphs contained in the Attachment. Graphs 1 and 2 tell virtually the same story. Graph 1 shows the numbers of contributors to the basic table as at 30 June from 1977 to 1994. Graph 2 shows the percentage of the population covered by basic hospital insurance, by quarters to December 1994.

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<sup>1</sup> The author wishes to thank Mr Bruce Holzhauser of MBF for invaluable assistance with data and discussions on aspects of this paper. Any errors or omissions are, however, solely the responsibility of the author.

Because the purchase of supplementary hospital cover is contingent on the purchase of basic table cover, data for the latter pick up all insured persons who have some approved form of hospital cover with a registered fund. The trend in coverage for supplementary hospital insurance (not shown here) was static at about 30 percent of the population, rising to 38-39 percent over the years 1987 to 1991 and converging on the coverage for the basic table. Since 1991, the numbers of contributors to supplementary tables and the percentage of the population so covered have both fallen continuously, in line with the downward trend in basic table coverage. We note here that the downward trend over the period from just before to after the introduction of Medicare probably is understated because of the demise of the non-registered funds under the amendments to the Health Insurance Act that applied from September 1985 and which required all health funds to be registered.

In summary, apart from brief interruptions from 1981/82 to 1983/84 and again in 1985/86, the trends in both coverage and numbers have uniformly been downwards. If one were sufficiently alarmist one could, in the tradition of the Club of Rome (Meadows *et al* [1972], *The Limits to Growth*), venture to draw a straight line through data for insurance coverage over the Medicare years so as to intersect the horizontal axis at about 1997/98.

We now turn to some basic economics of consumer choice in respect of health insurance.

### The Demand for Health Insurance

It is reasonable to assume that individuals decide whether to buy private health insurance, to continue with their existing level of cover, to upgrade, to downgrade or to drop insurance altogether, on the basis of a number of economic factors that affect them personally. Such factors are the price (i.e., the insurance premium), their incomes, their age and family circumstances, the risks and other costs that they perceive they would face without insurance and their preference for risk-avoidance. A number of studies (e.g. the results of the Rand health insurance experiment - see for example; Manning *et al* [1987]) lend support to these assumptions, as well as do the data gathered in the various ABS Health Insurance Surveys (Cat. No. 4335.0).

The ABS surveys carried out since 1981 have consistently shown that people in higher income brackets, people with families and people aged 35 to 50 years are more likely to have private cover. On a State basis, the lowest coverage has been in Queensland which, interestingly, has had a long-term policy of free public hospitals for all residents.

Factors such as the distribution over the population of family composition and of household income are not, however, likely to alter much in the short term. In the longer term, the relative growth of single-parent families, who have the lowest coverage of all family types, and of health card holders (unemployed, aged and other pensioners) would perhaps have tended to reduce the aggregate demand for private

health insurance. The important factor here would most likely have been lower disposable incomes in the face of rising insurance premiums.

The question here, however, is whether these longer-term trends in personal circumstances would themselves have served to produce the historical downward trend in numbers of contributors and coverage, apart from the aforementioned temporary interruptions to this trend. We note first that the trend in coverage seems to have been relatively unaffected by the business cycle, and so neither movements of people into and out of unemployment, nor concomitant changes in income distributions, appear themselves to have had a significant impact on aggregate private health insurance demand. Second, a rough statistical analysis showed that coverage was independent of aggregate household disposable income per capita, after controlling for price and certain other factors. It would be interesting to pursue this question in a more rigorous fashion.

The factors considered so far would tend to drive coverage towards a long-run equilibrium determined by the long-run proportions of the population who were single parents, long-run age and income distributions etc, and would not lead to the continuous decline in coverage that is the manifestation of the in-built self-destruct mechanism that is the main hypothesis of this paper. Such decline is crucially related to price.

In order to think about how price affects the demand for health insurance, we need a little more economics.

### Demand and Price

People in most circumstances - Casino environments excepted - reveal a preference for avoiding risk. The strength of that preference is measured by the maximum amount people are willing to pay in order to exchange a hazardous outcome for an outcome that is certain. That is, people who want to avoid risk are willing to pay over and above an actuarially "fair" premium (equal to the sum of the values of the uncertain outcomes weighted by their respective probabilities) in order to avoid the uncertainty. If people's (marginal) value of risk-avoidance so measured exceeds the (marginal) resource costs of supplying insurance, the excess provides an edge for insurers to enter, offer insurance products, and make a clear profit. Insurers normally can be expected to enter and expand into such markets until market-clearing premiums just cover the actuarial fair premium plus the resource costs of supplying insurance products, including normal return on capital. Everybody gains from this market process, especially people who are willing to pay for insurance.

Things are a little different, however, when the price at which insurers can write insurance contracts are affected by regulation. People sensibly will not purchase insurance if the price exceeds the maximum they are willing to pay - that is, when the premium exceeds their marginal valuation of risk-avoidance plus the actuarial fair premium. As the price rises, people with weaker preferences for risk-avoidance and people who judge that they face less risk will exit from the insurance market. Like

every other commodity, health insurance obeys the First Law of Demand - the higher the price the less is the quantity demanded.

One reason why people may judge that they face less risk in the case of health care is that the government promises itself to supply health services or to subsidise their private production. We have seen that the lowest level of private health insurance coverage is observed historically under Queensland's free public hospital policy. We will see shortly how changes in the availability of "free" or subsidised health care has been closely related to the trends in coverage over almost two decades.

In the extreme case, when people face almost no downside in hazardous circumstances, they can be expected increasingly to engage in risky behaviour - a phenomenon that can be dubbed the Bond-Skase Effect (see also Sinn [1983]) for an interesting model). An implication of the Bond-Skase Effect is that when regulations prevent insurers from attempting to control such behaviour through risk-rating, no-claim bonuses, non-smoking discounts etc, the outcome is likely to be less self-care, higher subsequent health costs, and so higher prices for private health cover. In the same way, the government's provision of "free" universal health care that is available to redress the bodily consequences of riotous living, one can expect more riotous living and so higher health costs.

In general, when "free" access to the health system is anticipated, the gain from private health insurance is considerably less than otherwise. In such circumstances more people are not willing to pay so high a price for private insurance, or, equivalently, are not willing to buy insurance at the going price. *Mutatis mutandis* the more the price of health insurance is itself subsidised - so that the net price is less than peoples' marginal value of risk avoidance (plus the actuarial fair premium) -the more there are likely to be people who will purchase private health cover. We return to this below.

### Trends in Premiums

Graph 3 in the Attachment illustrates the movements since 1976 in the price of private health insurance. The particular time series that is shown in the graph is for the family weekly rate for basic hospital insurance, deflated by the CPI (all capital cities). The actual amounts were those charged by one of the large funds, and reflects the general movements in this particular price over most of the health insurance industry.

First, it is clear from the graph that the trend in real premiums, especially since 1990, has generally been upward - with the exception of the pre-Medicare period. The next section outlines some of the policy-related factors that, it is claimed, have contributed to this trend.

Second, It is apparent that the movements in this series, with a lag, roughly correspond to movements in coverage and in numbers of contributors as shown in Graphs 1 and 2. The relation between (real) price and coverage is more clearly illustrated in the Graph 4 which plots the real premium against basic table coverage. In this Graph, real premiums are lagged 4 quarters to allow for the likelihood that it takes time for people

to respond to price changes, and that their response is stronger the longer is the period of time over which the price change persists<sup>2</sup>.

Thus, there is a clear negative relationship as predicted from the Law of Demand, although one would have to control for the other factors that affect the demand for health insurance in order to identify the true underlying demand function.

We turn now to government health policies and the effects that these have had on insurance premiums and more generally on the demand for private health insurance..

### Government Health Policy, Insurance Premiums and Coverage

The trends in private health insurance since 1976 clearly reflect the impacts of changes in government health policies. The policy-driven factors that appear to have had important implications for insurance premiums consist of (i) subsidies paid for private hospital bed-day fees, (ii) implicit subsidies of bed-day fees for private patients in public hospitals, (iii) subsidies paid to the reinsurance pool, and importantly, (iv) compulsory community rating.

Subsidies for medical services were adjusted in a number of ways in the first few years of the Fraser administration and these changes would have affected the incentive to take out private medical cover. However the following discussion focuses attention on those changes that primarily have affected hospital insurance.

The 1975 Medibank arrangements survived the demise of the Whitlam government until 1976. The first major change to the original Medibank policy in respect of hospital services took place on 1 October 1976. From this date, "non-exempt" taxpayers were required to purchase basic health insurance, in default of which they faced a 2½ percent levy on taxable income. Thus the choice was; pay the levy and receive free public hospital treatment, or take out private cover and secure doctor-of-choice. At the time, choosing to purchase private health insurance was referred to as "opting out of the levy".

Against this incentivating tax, public hospital bed-day charges for private patients doubled to \$40 for shared ward accommodation and to \$60 for single room accommodation. This would eventually have fed through into basic hospital premiums. However the immediate impact of the levy likely contributed to sustaining basic hospital insurance coverage at over 65 percent of the population, as can be seen from Graph 2.

The 2½ percent levy penalty lasted for just over two years and was abolished on the occasion of the second major policy shift enacted by the Fraser government - on 1 November 1978. It is interesting to note from Graph 2 that insurance coverage commenced its downward trend in the latter half of that year - a trend which persisted uniformly until the March quarter of 1981.

<sup>2</sup> This effect is at times referred to as the Second Law of Demand.

Another factor contributing to higher insurance premiums over this period was the cut in the Health Insurance Subsidy, which fell from \$15 million in the 1977/78 budget to \$8 million in the 1978/79 budget. This subsidy was further cut to \$3 million in the next, 1979/80 budget after which it was absorbed into increased payments into the reinsurance pool.

The third policy adjustment, which took place on 1 September 1979, affected mainly the subsidy paid for medical services. From this date, the government simply paid any part of the scheduled fee above the maximum patient moiety of \$20. At the same time, public hospital fees for private patients rose by 25 percent from their October 1976 levels. We note that the downward trend in private insurance dipped slightly as from the September quarter of 1979.

The fourth, and major, change to health policy under the Fraser administration was announced in April 1981 and introduced piecemeal from June to September of that year. First, as from 1 September 1981, receipt of Commonwealth benefits for medical services (set at 30 percent of MBS fees with no maximum patient moiety) was contingent upon the purchase of basic medical insurance from a registered fund. Medical insurance could at this time be purchased separately from hospital insurance. Second, from 25 June 1981 "prescribed surgical procedures" performed in private hospitals attracted a higher bed-day subsidy of \$28, with other patient subsidies remaining at \$16 per bed-day. Up to this time, the private hospital bed-day subsidy had remained frozen at \$16 for all patients, in the face of rising hospital production costs. Third, costs to patients seeking doctor-of-choice in public hospitals were now around \$80 to \$110 per day, although basic table premiums would have reflected these higher costs. Fourth, as from 1 July 1981, the cost of basic table cover attracted a tax rebate of 32 percent, thus cutting the out-of-pocket expense of private insurance by about a third.

Fifth, the Commonwealth had more than doubled its subsidy to the reinsurance pool from \$50 million previously to \$117 million in 1980/81, falling to \$100 million over the remaining life of the Fraser government (see Table 1). The purpose of the reinsurance pool now is to finance the costs mainly of those over age 65 and the chronically ill, all of whom can be expected to impose higher costs on the system, and so on the health funds' members. Earlier (prior to 1989) the test for access to reinsurance pool benefits was long-term hospitalisation - generally in excess of 35 days. Increasing the subsidy paid to the pool served to constrain insurance premiums because, effectively, those higher health costs would then be (partially) picked up by the taxpayer.

A more subtle policy adjustment at this time was the alteration to the method of paying Commonwealth grants to the States for hospital services. Up to this time, the Commonwealth, under the Hospital (cost-sharing) Agreements, had paid a 50 percent subsidy of public hospitals' "net" deficit, which was calculated by deducting hospital revenues, such as private patient fees, from operating costs. From July 1981 the subsidies were restructured into "block" grants for health purposes with a view to eventually absorb them into the Commonwealth's Financial Assistance Grants paid to the States. The exceptions were South Australia and Tasmania, which continued

under an amended cost-sharing arrangement. The outcome of this restructure was that State governments which previously could promise their electorates extra hospital services at half the total (net) operating cost - the other being half borne by taxpayers at large, via the Commonwealth - now faced the full marginal cost of operating public hospitals. Predictably, available public beds declined thereafter, while private bed numbers continued to rise.

The implication for insurance, other things constant, was first, a growing "shortage" of public beds which likely generated a shift by at least some prospective patients towards private hospitals and into private insurance. On the other hand, that same shift would have placed upward pressure on private hospital fees and so perhaps contributed to the subsequent rise in (real) premiums (see Graph 3). It would be interesting to pursue these implications of the Commonwealth-State financial arrangements more rigorously.

Looking at the trends in Graphs 1 and 2, it is easy to see the dramatic effect that the 1981/82 health policy had on private insurance take-up. The combination of the tax rebate, the contingent subsidy for medical services and the expansion of the reinsurance pool subsidy, drove people back to private insurance in such numbers as to raise coverage to over 65 percent of the population, a coverage that was more or less sustained that from the September quarter 1981 to the March quarter 1983.

We note in passing that an upturn in coverage had taken place in the June quarter of 1981, prior to the actual introduction of the new health policy components. However this could well have been due to the announcement effects of the April Statement and other publicity, especially in the light of the normal two-months waiting period that applies to reimbursements to new members.

No further radical innovation to health policy took place until the newly elected Hawke government's announcement of Medicare in its May Statement of 1983, to be installed on 1 February 1984. Just about the only change prior to the Hawke administration was that the tax rebate for private insurance was cut to 30.67 percent for 1982/83 and was to fall to 30 percent in subsequent years, contingent of course upon the survival of the incumbent government. The Hawke government abolished the rebate, effective from 1 July 1983.

Graphs 1 and 2 show the plunge in numbers of contributors and in coverage as a result of the introduction of Medicare at the beginning of 1984 despite the fact that real basic table premiums fell (see Graph 3) at this time. Under Medicare, the bed-day fee for private patients in public hospitals was reduced to \$80 per day with the Commonwealth compensating the States for the concomitant loss in hospital revenues (the Medicare "compensation grants"). This would have permitted the fall in basic table premiums which then took place. But this would likely taken a while to impact fully upon the demand for private health insurance (recall the Second Law of Demand).

The huge decline both in coverage and numbers of contributors that took place after Medicare was introduced was presumably the consequence of the promise of free access to all eligible residents which thus reduced the personal value of private health insurance. The downside of remaining uninsured was largely eliminated by the

promised availability of access to (public) hospitals at the expense of someone else; the taxpayers.

The decline in insurance coverage had in fact begun earlier, perhaps as a result of announcement effects and the cut in the tax rebate. In respect of the latter, the abolition of a 30 percent rebate would have lifted the out-of-pocket expense of private insurance by 3/7 or 43 percent. The price effect on demand would have contributed to the decline in coverage.

Interestingly, the decline in coverage and numbers was arrested in 1985, perhaps as the result of the lagged effect of the fall in basic table premiums referred to above. However, another factor that could possibly have contributed to the temporary reversal of the trends in coverage and numbers of contributors was the "doctors' dispute" that took place in the early years of Medicare. In this period, people faced diminished expectations of access to medical services in public hospitals, and this would therefore have raised their risk of remaining uninsured. Graph 5 breaks down the trends in numbers of contributors by State over this early Medicare period. It is interesting to note that the strongest upward trends in numbers of contributors took place in New South Wales and, to a lesser extent, Victoria. It was in New South Wales where the impact of the doctors' dispute on the availability of public in-hospital medical services was primarily focused. An additional factor could also have been the improvement in the supply and quality of private hospital services that also took place at this time.

Real premiums did not reach their September quarter 1984 level until two years later in the September quarter of 1986. The further rise in premiums in the last quarter of 1986 clearly is associated with the re-commencement of the long-term decline in coverage as from December of that year. Similarly, the rise in premiums over 1990 at a rate slower than inflation is associated with coverage stabilising at around 45 percent of the population in that calendar year.

There were several changes to health policy that were made over the Medicare period which reinforced the upward trend in real insurance premiums which in turn reinforced the general downward trend in coverage.

First, the bed-day subsidies to private hospitals were abolished as from 1 October 1986. Second, the "gap" in the fee for in-hospital medical services that the basic table was required to cover was increased from 15 percent to 25 percent of the MBS fee. Third, the subsidy to the reinsurance pool gradually vanished over the first five years of Medicare. Fourth, as from July 1989 reinsurance benefits were to apply to supplementary tables as well as to the basic table - offset partially in the short run by a one-off Commonwealth payment of \$20 million. Fifth, "standard" ward public hospital fees rose, particularly over 1987. Sixth, minimum benefits covered by the basic table were increased by 12 percent as from 1 October 1987.

Table 1 shows the Commonwealth's subsidies to the reinsurance pool since the 1976/77 budget. Significantly, these were cut by 4/5 from \$100 million in 1982/83 to \$20 million in each of the first two budgets under the Hawke administration. This

subsidy was cut again by 4/5 to \$5 million in the budget of 1985/86, then again by another 4/5 to \$1 million for each of the succeeding budgets to 1988/89. At this point, the geometric progression in budget cuts was terminated, along with the subsidy.

In summary, the four important factors arising from health policy since Medicare and which impact upon health insurance premiums are; first, the abolition of the tax rebate for private health insurance; second, the abolition of the bed-day subsidy to private hospitals; third, the abolition of the Commonwealth subsidy paid to the reinsurance and fourth, the entrenching of community rating and its implications for cross-subsidisation of patient costs paid from the reinsurance pool.

### Community Rating and Premiums

The principle of compulsory community rating has applied to the registered health funds from inception. Under this principle registered funds are, by definition, not permitted to price-discriminate amongst members on the basis of anticipated risk. Thus, elderly or chronically ill people are able to purchase private health insurance at the same price as can young and healthy persons. In a similar manner, the family rate for private insurance simply is twice the single rate, and so is independent of a family's size.

The immediate implication for insurance premiums is that the common price for, say, basic table hospital cover, that applies to all and sundry must, as a matter of simple arithmetic, transfer payments from the young, single or healthy insured to the over 65s and chronically ill insured persons unless the reinsurance pool which pays the benefits for the latter is heavily subsidised. Thus the premium faced by younger, healthier and single persons - or couples without dependents - must, by the same simple arithmetic - lie above the actuarially fair premium by a rather large margin, whereas premiums faced by the over 65s, the chronically ill and by large families must correspondingly lie below the premium that would apply in a risk-rated market. This is the important consequence of the community rating principle.

The issue of whether not it is "equitable" for such transfers to be compulsorily forced upon the insurance market by government regulation, or whether instead it would be more "equitable" for taxpayers to fund the aged and chronically ill either through reinsurance pool subsidies or a suitable safety-net arrangements is not further pursued here.

### Implications for Private Health Insurance

We are now in a position to consider the paper's main hypothesis.

We hypothesise as follows. As the elimination of subsidies and rebates force up premiums, people who are less risk-averse or who anticipate a lower risk for themselves and their families will tend to reduce their levels of cover, or to drop out of private insurance altogether. This tends in turn to raise the average risk of those

remaining in the insured population. The upshot is higher premiums to all under the community rating principle. The exodus from private insurance is accelerated by the provision of a tax-funded global safety net like Medicare.

Although many persons would perhaps be willing to pay a "fair" price for catastrophe cover - as evidenced by the continuing survival of the non-registered funds prior to their elimination under Medicare - such cover cannot legally be sold on a risk-rated basis under the community rating principle. Many such persons likely opt for the remaining option - self-insurance plus Medicare.

Consider a spectrum of age groups from, say those in the early 20s to those of more mature age. Assume, as is implied in all the data available on health costs by age group, that risk rises with age. The cross subsidies *sans* Commonwealth contributions to the reinsurance pool then imply that for any given collection of people of all ages in an insured population, there will be some age group - other things constant such as attitude to risk-bearing - for which the premium is just at the margin of leaving no consumer surplus to the insured.

To continue this scenario, as persons who are younger than those in the break-even group continue to exit from the pool of insured persons, the remaining average risk rises, and so does the community-rated premium. Those just on the margin of paying a "break-even" premium prior to this event now find that their insurance, all things considered, is too costly. People in that break-even age group now begin to exit from private insurance. And so the cycle is repeated.

Of course, one might perhaps think that if one were to remain in private insurance for the whole of one's life, then those early years over which premiums are "too high" would, on balance, be offset in later years when one anticipates a subsidy from fresh younger generations who join funds. However a little thought would soon reveal a far superior strategy - to opt out of private health insurance when the price is "too high" and to opt back in when the one is older and can thus expect to pay a subsidised price. Nor is there any incentive to remain insured on the grounds that one's public-spirited behaviour will assist in stemming the inexorable climb in premiums. This is because there is no way that one can reap for oneself the benefits that would be bestowed on large numbers of other people. Unfortunately the collective outcome of many people adopting the superior strategy is to drive up premiums all round. In this way, one's anticipated age at which it is optimal to re-join a fund and seek the subsidy must continually be revised upward.

Thus we would expect eventually to observe a shift in the age-distribution of insured persons towards older age groups. We would also expect to observe that proportionately more benefits are paid out of the reinsurance pool. Evidence over the last few years appears to confirm these conjectures.

Table 2 and Graphs 6 and 7 exhibit data from the ABS Health Insurance Surveys since 1981 (The 1984 survey is disregarded here because that survey was of "wage and salary earners" and so the sampled population does not fit consistently with the other

ABS surveys). Perusal of the data in Table 2 clearly reveals the drift to the over 65s, particularly since the inception of Medicare.

Table 3 and Graph 8 show the upward trend in payments from the reinsurance pool to the over 65s and chronically ill. As well, PHIA's 1993/94 Annual Report tables data on average length of stay in hospitals by insured persons. PHIA reports as follows;

"...utilisation in terms of days per person covered has increased since 1989/90 by almost 4.5%. ... the trend of increasing utilisation by the insured population would be masked by the general decline in length of stay." (PHIA [1994], p.27)

This would be an expected outcome of a more elderly insured population because of the well-known acceleration in health costs with age, especially amongst those above age 65.

PHIA also reports, interestingly, an increasing trend of hospital days utilised by the insured population towards private hospitals. In 1993/94, 63 percent of hospital days were in private hospitals as against 54 percent in 1989/90 (PHIA [1994], p.26). Presumably this reflects the upward trend in supplementary insurance cover relative to basic cover that was mentioned earlier. Perhaps, in turn, this trend is the result of trends in the relative price of "top" cover versus basic cover weighed against the risk of waiting patiently at public hospitals.

## Conclusion

We conclude with our main hypothesis; that private health insurance arrangements in Australia contains a built-in self-destruct mechanism. That mechanism is the inevitable and direct consequence of the regulations that surround private health insurance, particularly the imposition of community rating together with the non-subsidisation of premiums or the reinsurance pool. This is not by any means to argue for subsidies - merely to point to the consequences of their absence in the context of community-rated health insurance plus the Medicare safety net.

We note at this point that the term "community rating" is indeed a misnomer. Premiums are not, as we have seen, based on the risk of the entire "community" but are instead derived from the risk of the ever-diminishing subset of the community that remains covered by private health insurance. The term "community-rating" should perhaps be replaced by a more accurate term; a suggestion could be, say, "diminishing-pool rating (DPR?)".

It is impossible to predict exactly the final equilibrium outcome of the continuing cycle of exodus and hikes in premiums, or when it will eventuate. In one equilibrium, those remaining insured could consist solely of high risk groups members of which are sufficiently risk averse - or sufficiently rich - to fund the insurance infrastructure to write cover at community rated premiums that are altogether too costly for the

remainder of the population. As for the rest, there is the dubious option of self-insurance or Medicare's promise of eventual accommodation at a public hospital.

In another equilibrium, there might not be any private insurance at all.

Such an outcome would also destroy the funding base for private hospitals as well as obliterating public hospitals' revenues from insured private patients. One can easily imagine the disastrous effects that the collapse of the private hospital system would have on the queues at the doors of public hospitals as well as the pressure on Commonwealth and State budgets to fund the promise of "access and equity".

The government clearly is concerned with the adverse trends in private cover, and accordingly has proposed over the years a number of suggested reforms. We briefly consider the latest of the proposed reforms to health insurance.

### **The New Look Insurance Market**

Private health insurance in Australia is soon to be rearranged under the recent amendments to Federal legislation. Essentially, these involve health funds writing contracts with individual providers - hospitals and doctors. The amendments propose that funds will negotiate prices at which they will reimburse their members for hospital and/or medical services. In addition the basic table is to be abolished.

It is not yet clear whether health funds will be regulated in the way that they reimburse their members for care at hospitals with which the fund has no contract, although the history of regulatory paternalism in the health sector would suggest that the government may prescribe minimum reimbursement rates.

The proposal is, on the face of it, an attempt to halt, and hopefully reverse, the decline in private health insurance coverage that we have extensively discussed above. Other things constant, the less that health care is funded from private sources - mainly private health insurance premiums - the greater is the exposure of state and federal government budgets to rising health outlays. That is, taxpayers pay more for the hospital and medical services of others, or facilities such as public hospitals are further squeezed by budgetary economies. Either way the politicians cop the flack.

Will the government's proposed changes remedy this situation? The government presumably hopes that providers will be willing to negotiate lower fees in exchange perhaps for a more certain longer term caseflow. So patients' "choice of doctor" will be replaced *de facto* by "choice of health fund". Also, when the new system is fully operational, negotiation of hospital fees will be made on the basis of Diagnostic Related Groups (DRGs) which is a method of cost-based pricing that is to replace the current bed-day charge. The hope is, presumably, that DRG pricing will motivate providers to discover extra efficiencies in the way they deliver health care, and that the cost-savings will be passed on the funds and their contributors.

Unfortunately, even if the new policy works as hoped, the effects on hospital and medical prices are likely to be short-run only. There clearly is a limit to which costs - especially in private hospitals - can further be cut. In addition, the compliance and administrative costs will partly be borne by insurers and hospitals, with the taxpayer funding the new bureaucracy to monitor, advise and regulate the new system.

Another factor that will contribute to higher premiums than otherwise will be the ability of funds under the new arrangements to contract with doctors to cover the out-of-pocket expense for in-hospital medical services. This will allow doctors to receive contract fees from health funds above MBS levels (provided that doctors agree to "maximum" fees).

We suggest, finally, that the proposed changes are not likely to halt the decline in numbers of people insured, except perhaps in the short term, because the proposal fails to remove the fundamental flaw of the current system: community (or, diminishing-pool) rating.

The self-destruct mechanism, like a malign Doomsday machine, will continue to tick away regardless.

### **Policy?**

What can be done? We suggest the following dual policy package as a means of dismantling the self-destruct mechanism.

First, Medicare in its present form should be dismantled and converted to a safety-net health financing system. It would be administratively rational to relocate the management of Medicare, thus reconstructed, to Social Security - simply because DSS has the mechanisms and experience to manage peoples' access to safety nets such as pensioner health benefits cards and the like.

Second, at the same time, or earlier, the health insurance market should be completely de-regulated with the exception of prudential incentives that normally would apply to insurers in general. Indeed one would expect that general insurance companies would enter the health insurance market to compete with the health funds and for-profit insurers who traditionally have specialised in this area.

Finally, with the taxpayer funding the higher risk aged and chronically ill, the "equity" case for community rating evaporates entirely.

**References**

Australian Bureau of Statistics [1981], *Health Insurance Survey Australia*, Cat. No. 4335.0, March.

Australian Bureau of Statistics [1983], *Health Insurance Survey Australia*, Cat. No. 4335.0, March.

Australian Bureau of Statistics [1986], *Health Insurance Survey Australia*, Cat. No. 4335.0, March.

Australian Bureau of Statistics [1988], *Health Insurance Survey Australia*, Cat. No. 4335.0, June.

Australian Bureau of Statistics [1990], *Health Insurance Survey Australia*, Cat. No. 4335.0, June.

Australian Bureau of Statistics [1992], *Health Insurance Survey Australia*, Cat. No. 4335.0, June.

Commonwealth of Australia, *Budget Statements: Budget Paper No. 1*, various issues.

Department of Health, Housing and Community Services, *Annual Report*, various issues.

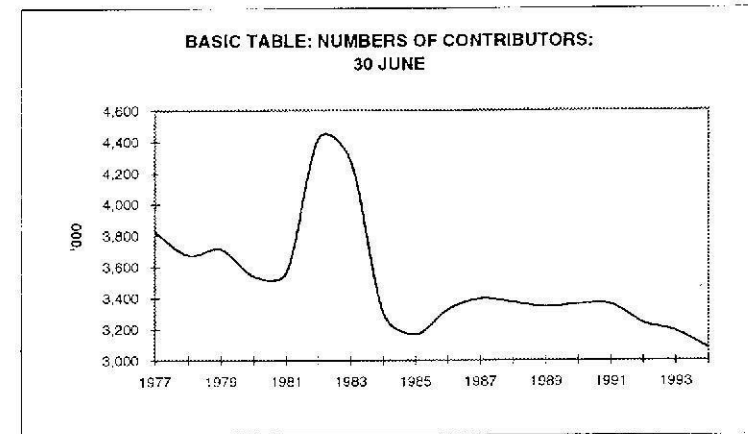
Manning, W.G., J.P. Newhouse, N. Duan, E.B. Keeler, A. Leibowitz, & M.S. Marquis [1987], "Health Insurance and the Demand for Medical Care," *Amer. Econ. Rev.* 77(3), June: 251-277.

National Health Strategy [1991], *A Healthy Risk? Use of Private Insurance*, March.

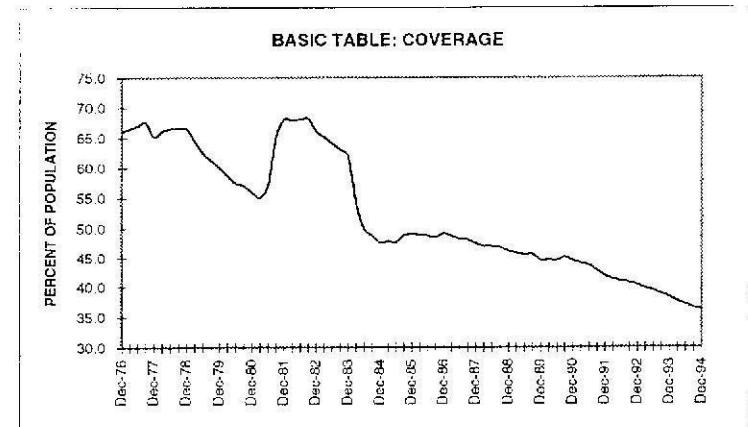
Private Health Insurance Administration Council (PHIAC) [1994], *Annual Report*, AGPS.

Sinn, H.W. [1983], *Theory of Decisions Under Uncertainty*, North-Holland.

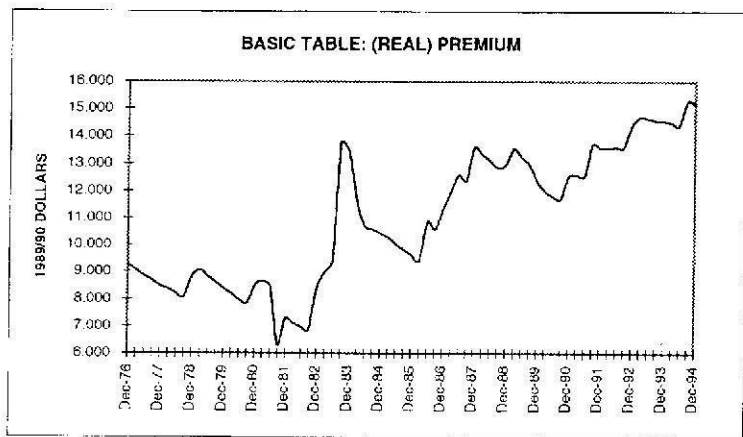
**GRAPH 1**



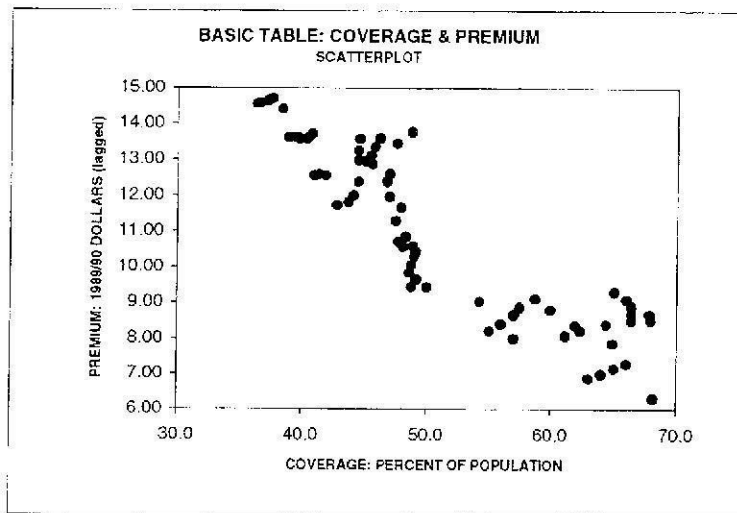
**GRAPH 2**



GRAPH 3



GRAPH 4



GRAPH 5

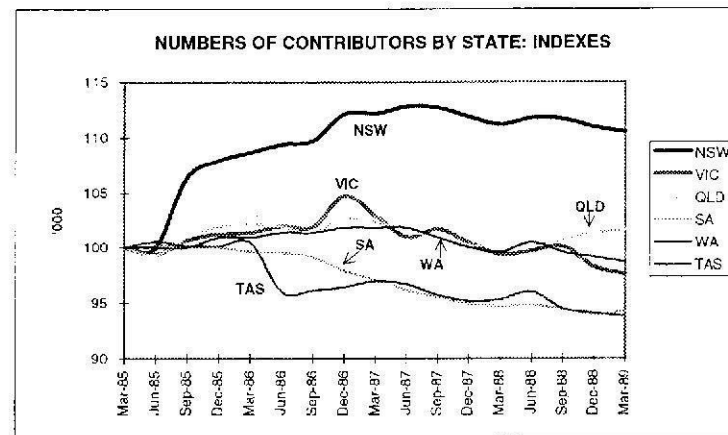


TABLE 1

COMMONWEALTH CONTRIBUTIONS TO THE REINSURANCE POOL

Year	\$ million	
	Budget	Actual
1976/77	37.5	15.5
1977/78	50.0	59.5
1978/79	50.0	47.0
1979/80	50.0	52.4
1980/81	117.0	115.2
1981/82	100.0	101.2
1982/83	100.0	99.8
1983/84	20.0	20.2
1984/85	20.0	20.0
1985/86	5.0	5.0
1986/87	1.0	1.0
1987/88	1.0	1.0
1988/89	1.0	1.0

TABLE 2

PRIVATE HEALTH INSURANCE BY AGE

Numbers: '000

Total Insured

Age Group	Mar-81	Oct-83	Mar-86	Jun-88	Jun-90	Jun-92
15-24	699.0	886.9	511.2	553.9	549.6	518.4
25-34	843.3	1,049.5	783.9	812.2	809.8	733.9
35-64	1,833.7	2,124.1	1,798.2	1,952.6	2,053.5	1,962.5
64+	371.7	382.7	385.2	518.6	592.8	562.0
Total	3,747.7	4,443.2	3,478.5	3,837.3	4,005.7	3,776.8

Hospital Only

Age Group	Mar-81	Oct-83	Mar-86	Jun-88	Jun-90	Jun-92
15-24	19.6	46.2	101.4	92.1	80.5	71.8
25-34	18.8	61.4	159.8	142.7	129.2	118.8
35-64	65.1	97.0	412.5	377.2	366.0	333.2
64+	107.4	98.2	182.7	200.8	227.9	203.8
Total	210.9	302.8	856.4	812.8	803.6	727.6

Percentages

Total Insured

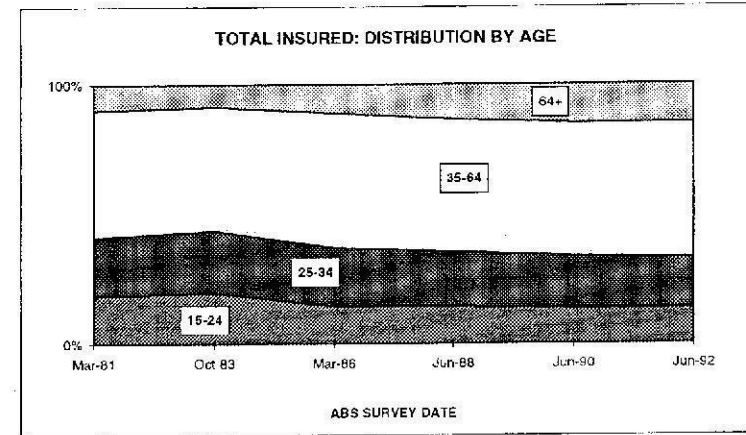
Age Group	Mar-81	Oct-83	Mar-86	Jun-88	Jun-90	Jun-92
15-24	18.7%	20.0%	14.7%	14.4%	13.7%	13.7%
25-34	22.5%	23.6%	22.5%	21.2%	20.2%	19.4%
35-64	48.9%	47.8%	51.7%	50.9%	51.3%	52.0%
64+	9.9%	8.6%	11.1%	13.5%	14.8%	14.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Hospital Only

Age Group	Mar-81	Oct-83	Mar-86	Jun-88	Jun-90	Jun-92
15-24	9.3%	15.3%	11.8%	11.3%	10.0%	9.9%
25-34	8.9%	20.3%	18.7%	17.6%	16.1%	16.3%
35-64	30.9%	32.0%	48.2%	48.4%	45.5%	45.8%
64+	50.9%	32.4%	21.3%	24.7%	28.4%	28.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ABS Health Insurance Surveys, Cat. No. 4335.0, various issues

GRAPH 6



GRAPH 7

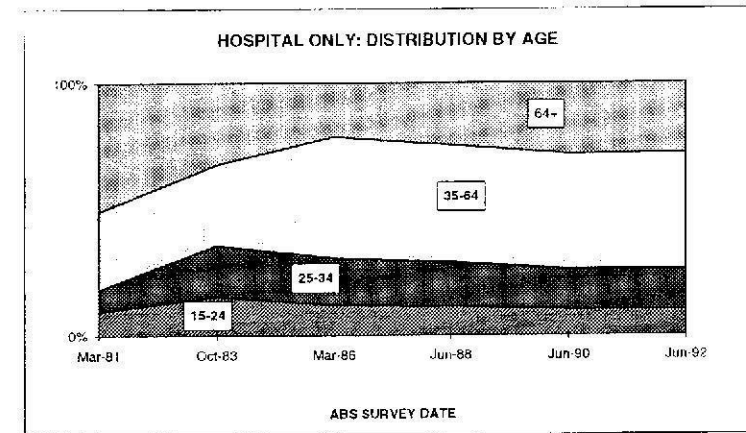


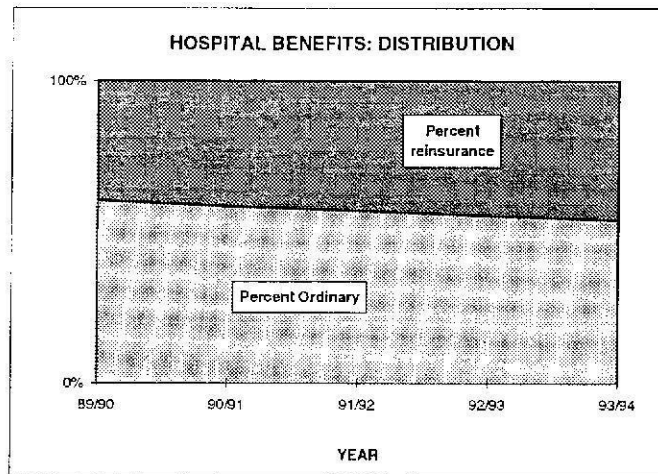
TABLE 3

HOSPITAL BENEFITS PAID

	89/90	90/91	91/92	92/93	93/94
Ordinary	1,161,169	1,288,381	1,373,464	1,405,001	1,398,297
Reinsurance	743,862	896,406	1,014,796	1,116,557	1,174,247
Total	1,905,031	2,184,787	2,388,260	2,521,558	2,572,544
Percent Ordinary	61.0%	59.0%	57.5%	55.7%	54.4%
Percent reinsurance	39.0%	41.0%	42.5%	44.3%	45.6%
	100.0%	100.0%	100.0%	100.0%	100.0%

Source: PHIAC Annual Reports; various issues

GRAPH 8



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- 13 I.G. Sharpe & P.A. Volker *Kredit and Kapital*, 12(1), 1979
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- 25 I.G. Sharpe & P.A. Volker *Australian Journal of Management*, October 1979
- 27 W.P. Hogan *Malayan Economic Review*, 24(1), April 1979
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- 29 W.P. Hogan *Economics Letters*, 6 (1980), 7 (1981)
- I.G. Sharpe & P.A. Volker
- 30 W.P. Hogan *Australian Economic Papers*, 18(33), December 1979
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T.P. Truong  
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