Institute of Actuaries of Australia

9 September 2003

Subject: RE: PC inquiry into OHS and WC

Pay-as-you-go is a form of funding that meets the immediate cash requirements of the system. Immediate obligations are met such as management expenses and entitlements to weekly compensation, medical and hospital costs, and common law settlements. No assets are accumulated to meet future compensation entitlement or management expenses in respect of incidents that have already occurred.

Full funding is where sufficient assets are accumulated to meet all entitlements to compensation, regardless of when they may be paid, and all costs associated with managing claims that have occurred. It is expected that investment income earned on the assets will also be available to meet emerging costs.

Necessarily, some uncertainty exists in the level of funding as the value of the assets and liabilities at the date of measurement can only be estimated. Typically, the level of funding in compensation schemes is measured by the funding ratio (outstanding claims liability / net assets).

Hope this helps
I will also fax an extract from the IAAust text book

Regards
Clive

The use of experience rating will focus us the attention of those who pay for the scheme on the advantages of controlling costs. Experience rating may take the form of bonus or penalty on the levy rate, based on claim experience.

Administration

The administration of benefits can have a significant effect on their cost. In an adversarial system, claims are affected by the vigour with which they are defended and the skill and timing of those who must decide which claims should be settled and which should be fought to a verdict. This affects both the amount and timing of claim payments. In a non-adversarial system, a similar effect may be obtained by variation in the standards of proof and the depth of investigation required of claimants.

The degree of involvement of those, such as medical practitioners, responsible for determining eligibility for benefits and costs of treatment, on behalf of the scheme administrators, will also affect the ultimate cost.

Much of the scope for variation in cost comes in the area of partial disability. There is an interaction between the clarity of the benefit rules and the extent to which the cost can be varied. Another significant area of variation relates to fraudulent or exaggerated claims and the extent to which they are resisted.

The administration of benefits can also affect the generosity of the scheme. The difference between lax and strict administration can be very large, particularly for partial disability benefits. The extremes of the possible range are not usually observed, because of pressure from claimants if the administration is too strict and from those who must pay for the scheme if it is too loose. If this feedback mechanism is broken, however, as happened with the New South Wales motor vehicle third party scheme in the early 1980s, when premiums were set with no regard to claim cost, costs can blow out alarmingly.

Common law

Common law actions which would otherwise fall within the scope of the scheme are sometimes prohibited by statute. At the other extreme, the scheme may include provision for unrestricted access to common law. In between, restricted access to common law may be allowed. Two common restrictions are a threshold, so that only the seriously injured can claim at common law, and a requirement that a common law claimant must renounce statutory benefits and vice versa. The level of common law access can have a large effect on the total cost of the scheme, particularly if it offers more attractive benefits than those provided by the scheme.

FUNDING

The degree and method of funding for compensation schemes vary considerably and will depend to a great extent on the scale of government support and on political issues.

Degree of funding

For an accident compensation scheme, various degrees of funding, ranging from pay-as-you-go to full funding and beyond are possible. The reason that a range of funding can be contemplated is the guarantee given or implied by government control of the scheme. In effect, a scheme which is less than fully funded has an invisible asset, the taxing power of government, which may be exercised in the form of compulsory levies to finance the scheme.

Full funding
A scheme is considered to be fully funds ;i if it holds assets sufficient to meet its liabilities for claims which have arisen up to the date of measurement and for claims which are expected to arise in respect of levies which have been collected up to that date. This is the normal standard which applies to insurance companies.

Where they may be a difference from insurance is that an insurance company needs to hold a margin for uncertainty. It may be argued that the ability to charge a compulsory levy under an accident compensation scheme effectively substitutes for the solvency margin and that it is appropriate to only provide for the central estimate of the value of the liabilities. The extent to which the government wishes the scheme to rely on future increases in the compulsory levy to meet unexpected adverse experience is essentially a political judgement.

Pay-as-you-go
At the other extreme, a scheme is pay-as-you-go if it has no assets - if it balances its income and outgo from day to day. Such a scheme usually maintains a fund of three to six months payments or overdraft facilities sufficient to tide it over short-term imbalances between income and outgo.

Partial funding
Partial funding can take many forms. One example is the workers' compensation schemes in New South Wales and Victoria in the late 1970s and early 1980s. Both were supposed to be funded in respect of weekly benefits at the rate payable at the date of injury and pay-as-you-go in respect of inflationary increases to those weekly benefits.

Where there is significant uncertainty about the expected future experience, particularly systematic uncertainty, it is possible to value liabilities on an optimistic or pessimistic assessment of future experience. This can result in under or over funding, depending on how the experience emerges. A deliberately optimistic assessment is usually only adopted under government direction. When the WorkCare scheme was introduced in Victoria in 1985, for example, levy rates were deliberately set below the expected short term cost, in anticipation of substantial improvements in safety. The funding target was that the scheme would be fully funded after ten years.

An optimistic basis was also adopted when the New South Wales WorkCover scheme was set up in 1987. In this case, however, the experience turned out to be even better than projected and the scheme became overfunded.

Partial funding can also arise if the levy setting mechanism is not firmly based on the claim experience. If, for example, it is decided to index the rates of levy and claim costs rise faster than the index, a fully funded scheme will become partially funded. If this is allowed to continue for any length of time, there is likely to be an eventual sharp fall in the assets of the scheme to an unfunded position.

It appears to be a general rule that, if the levy setting process operates as a political rather than a technical exercise, the scheme will eventually become pay-as-you-go. If not managed properly, the final stages of this transition can involve very substantial levy increases.

Public or private sector

As well as a range of degrees of funding there is a choice as to where a compensation scheme is to be funded - in the public sector, the private sector or some combination of the two. At one extreme, where the "scheme" is funded through the budget out of general taxation, we have social security. At the other we have insurance, where the "scheme" is totally in the private sector. Compensation schemes usually lie between these two extremes.

In some cases, the scheme is totally run by a statutory body which sets and collects levies, pays claims and invests the funds. As a next stage, some or all of the administrative functions can be contracted out to the private sector. Finally, there can be a number of competing private insurers operating under a degree of government control, which can cover such matters as levy rates, policy conditions, acceptance of risks and claim management, in addition to the normal supervisory concern of solvency.

To the extent that private insurers carry the liability to pay claims, the scheme must be fully funded. This reduces the problems of funding the outstanding liability when an insurer withdraws or is removed from the scheme. If the liability attaches fully to a government body, the full range of funding levels is available.

Funding dynamics

Whatever degree of funding is adopted can be expressed in the form of a funding target, the level of assets required from time to time to be held by the scheme. If this target is to be met, then the total levy income required can be calculated as the expected expenditure on claims and expenses, plus the expected increase in the required fund, minus expected investment earnings.

In practice, actual income and expenditure never exactly match expectation and the fund will always be above or below its target. If the scheme is significantly above or below its target, it becomes necessary to adjust the required levy income to try to bring the fund back on target.

If the liability for making claim payments lies with the authority administering the scheme, it is not so critical if the fund falls below its target. Levies are compulsory and can be increased to make up the shortfall. If the liability lies with private insurers, the situation is more complicated. On the one hand, private sector insurers are required to maintain a minimum solvency margin. On the other, if all insurers get into trouble because of inadequate premium rates, it is likely that a way will be found to allow them to trade out of their difficulty, particularly if the premium rates are under government control.

For a pay-as-you-go scheme, if it is not to spend part of its time in overdraft, it is necessary to maintain a sufficient fund to support an unexpected upswing in claim payments until levy collection can catch up. Levy rates may be set for a year at a time on the basis of the information available up to either six or twelve months before the start of that year. If there is a change in the experience, it could therefore take two to three years before this can be reflected in levy collections. If there is a need to spread any sharp change in levy rates over a period, then the delay may be considerably longer. For this reason, such schemes try to monitor their experience more closely. Even so there are substantial delays.

The behaviour of such systems is the subject of control theory which was referred to in Chapter 14.

Rating structure

Another important aspect of funding is who should pay for the scheme, and on what basis. The answers to these questions can, to some extent, be guided by the philosophy of the scheme, but practical considerations are also important.

For motor bodily injury compensation, the basis for charging is usually the motor vehicle, with a link between insurance and registration. Possible alternatives include the driver, with a link to the driver's licence. In Australia, premiums generally vary between broad classes of vehicle and geographical areas. Mileage and a levy on fuel have been suggested as alternatives, as has driving record in the context of premiums paid by drivers.

The choice of revenue base and the allocation of costs within that base should be reasonably consistent with the philosophy of the scheme. The allocation can be quite different between an at-fault scheme based on causation, and a no-fault scheme based on involvement. This may be seen in the case of motor cycles in a motor bodily injury scheme. Motor cycles are involved in a substantial number of accidents in which the rider is the only person injured, but are less likely than heavier vehicles to cause injury to others. As a result, they attract a relatively low rate on an at fault basis and a relatively high rate on a no-fault basis.