

CHAPTER VIICONCLUSION

The concept of each industry paying for its own accident costs appears as the logical extension of externality theory. However, because costs are allocated from the industrial class to individual firms on the basis of payroll rather than accidents produced, levies resemble insurance premiums rather than marginal taxes, and all direct incentives to accident prevention are lost. The only way a firm can reduce levies is by reducing payroll, either by economising on labour through more capital-intensive processes, or by reducing the level of activity - neither of which it has been argued has an unambiguous impact on total accidents.

The resource allocation argument which asserts that differential levies will result in a long-term shift towards safer products, thus reducing total accidents, is insubstantial. Some of the reasons which have been proposed are: the lack of marginal cost-pricing, particularly in the large public sector where imprecise political processes replace the concept of consumer sovereignty, and the disregard of the role of use of the product in producing accidents. Where previously accident compensation was only applied to industrial accidents, the new scheme is concerned with the total accident picture and the narrow view that is implied by a system of industrial differential levies is inappropriate.

The funding of non-work accidents through levies on employers is undesirable for three reasons: firstly, the equity criterion - the firm is in no way responsible for

out-of-work activities, so that the principle of user pays is disregarded, and by a payroll type of tax, labour-intensive, high-wage industries are relatively penalised. Secondly, the externalisation of accident costs from the activities concerned precludes any incentives to safety. And thirdly, even if it is decided to fund non-work accidents by a general taxation method, payroll taxes are inappropriate. It may be argued that they are probably shifted backwards to labour, but even if so, the payroll method only captures wage income and only up to a ceiling. In view of the considerable non-earnings-related benefits which are available for non-work accidents, the impact of this method of funding is regressive above the ceiling. Usually in New Zealand, general social welfare provisions are provided from the broad base of general taxation.

When the gross levy revenue from the Motor Vehicle Fund (22.2m dollars) and the appropriation (10.9m) from the Supplementary Fund are included with the non-work component of the Earners' Fund (31.8m), the total non-work revenue for 1978 is \$64.9m. Assuming that the levies are adequate,¹ 47.7m is required for work accidents and 64.9m for non-work. Thus the non-work component is the major portion of the whole scheme and from the point of view of social costs is probably substantially understated because these figures reflect only a narrow ex post evaluation of the costs and do not allow for earnings-related compensation to non-wage workers, e.g. housewives.

The principles of cost allocation derived by Calabresi and others suggest that the total externalisation of non-work costs represents a lost opportunity to affect the accident rate.

1. In an actuarial sense they are not regarded as adequate by the Commission and will probably rise in 1979.

Theoretically costs should be allocated to non-work activity so that preventive action is taken by those most easily able to do it. This presupposes an empirical theory of accident causation and in its absence a rough allocation of costs on the basis of involvement may be the best that can be done. Correct allocation satisfies the equity criterion of user pays in a broad sense because it is by lack of preventive action of the activity that accidents do in fact occur.

The principle of charging contributory activities on the basis of broad causation need not rekindle the fear that the fault principle in any sense is to be reintroduced. Costs are not allocated to specific individuals for specific accidents, but to classes of individuals whose behaviour is associated in a statistical sense with accidents. Thus it makes good sense to charge all convicted drinking drivers whether accidents are caused or not (e.g. current maximum fines of up to \$4,000 could be allocated to A.C.C.). When activities are differentiated to an appropriate degree it does not matter that the type of charge is lump-sum in character rather than marginal. For example, a premium levied on the activity of owning motor cars as at present is unlikely to have any effect because the elasticity of car-owning is low. However, a change to a driver-based charge, where those convicted of speeding, drinking, lack of care, etc. pay substantially increased premiums may have the desired influence on driver behaviour. Alternatively, if certain types of cars have fewer accidents, or certain safety instalments are proven to be effective, then these could be acknowledged by lower premiums.

At present each class of motor vehicle is supposed to 'pay its own way'. In view of the involvement principle this is inappropriate, as accidents are not usually experienced by one vehicle in isolation. Particular mention has been made of the present practice of loading all the costs of motor-cycle accidents onto the motor-cycle class merely because it is the motor-cyclist who is usually injured. For road accidents in general, the role of the local authorities in providing safe roads and the role of the manufacturer in designing safe cars needs investigation to determine whether allocating some of the costs to them is appropriate.

In the present scheme a number of road accidents are paid for through the Earners' Fund. For example, if an employee crosses the road to pick up some paint from the paint shop and is knocked down by a car, this is a work accident and ultimately payment is made from the Earners' Fund. This, and the practice of funding on-the-way-to-work accidents through the Earners' Fund understates the true costs of motor vehicle activities.

Other non-work activities are a highly significant component of the total accident picture and yet the present scheme emphasises financial incentives on work injuries to their exclusion. The principles of cost allocation suggest that to levy associated equipment would be of small consequence in accident prevention except in so far as an individual is led to choose a safer activity. Basically, once paid, the charge will have no impact on accident prevention, nor can existing equipment be made to carry this charge. A better solution is to levy associations of sporting bodies and allow

them to recover costs as they see fit. If costs allocated annually bear a direct relationship to the costs associated with the activity, the incentive should be there to promote accident prevention. The practical details of such charging schemes have not been fully investigated here, but the principles outlined suggest that it is worth researching their feasibility before any final commitment to general taxation funding is made.

There are two major problems in designing a non-work charging system. Firstly, in charging activities directly it is difficult to see how such charges could be earnings-related, but if an earnings-related basis of funding is chosen, it would be difficult to make this risk-related. Elementary principles of insurance require that the premiums be related not only to the risk but the size of expected claim. For example, two houses may have equal chances of burning down, but the premium would be higher for the more expensive house. Thus an earnings-related benefit scheme should have an earnings-related basis. This principle is not followed in the Motor Vehicle scheme at present, where all pay a flat rate non-earnings-related premium.

A compromise may be possible. A surcharge on individual incomes could be made to cover earnings-related aspects of compensation and the rest of the costs not recovered from charging accident-associated activities directly. Thus the individual would pay a flat rate earnings-related tax and extra when he indulges in hazardous activity. This is not a perfect solution, but accords more closely with equity and safety incentive criteria than does the present scheme.

It may be difficult to implement a surcharge on all income rather than earnings up to the ceiling corresponding to benefits obtainable and yet a case could be made for this broader base because all the non-earnings-related benefits of non-work accidents are available to all injured persons. Thus a person who indulges in no designated hazardous activity, but who trips and falls at home, for example, is able to obtain all medical and hospital expenses under A.C.C. If he has income from rents or dividends or other non-wage income, then under a ceilings on earnings system he would pay no surcharge. A general surcharge, it may be argued, is just like another increment in the general tax rate. However, if the surcharge is collected annually through the individual's Inland Revenue return, as is the self-employed levy at present, the cost will appear as a separate item to the individual and hopefully he will regard this as an insurance premium, more like a private use of his income rather than an increase in his general tax rate. The rate could be subject to increase, for example, if the scheme was extended to cover sickness at some future date.

Some tentative calculations made (Chapter V) suggest that if the national wage income base is taken, then a surcharge of about 22¢ per \$100 (or about 30¢ if motor vehicle accidents are included) should cover non-work earnings-related compensation. Thus, for a salary of \$10,000 this would amount to an annual charge of around \$22. If a broader based income measure is used, then the rate would be correspondingly lower. Alternatively, and more fairly, all non-wage income could attract a lower rate.

For work injuries, differential levies are either justified on equity grounds, i.e. hazardous industry should not be subsidized by the less hazardous, or on the grounds that they allow rebates and penalties to be instituted to accomplish direct safety incentives.

If one is persuaded that there is little of substance in the resource allocation theory, and with regard to the differing degrees of vertical integration evidenced in firms within the same industry, the interdependence argument of Beveridge becomes appealing. Financial and commercial enterprises are, for example, superstructures on the production, manufacturing base and would not exist without it. A flat-rate method of levying could be justified by the recognition that many safe jobs depend directly on other workers taking risks. Besides, in many large vertically integrated firms this interdependence is already recognised by the fact that all workers are levied at the same rate (apart from the two special classes of clerical-management and commercial travelling). Thus a gardener employed by an accountant firm is levied at 25¢, but if employed by a freezing works at \$2.50. These and other inconsistencies inherent in differential rating have been discussed (Chapter V) and tend to support a community of interest or interdependence theory.

The other main argument for differential levies has to be the incentive to safety provided by the possibility of rebates and penalties. It has been argued in Chapters IV and V that there is a conflict between the loss-spreading which insurance provides and the incentive for safety inherent in a scheme which makes firms pay for the costs of their own accidents.

Rebates and penalties when they are properly implemented should be designed to recognise when a firm is operating at a better or worse than average frequency than that expected for its class. A simple statistical criterion has been used to determine when rebates and penalties should apply. The longer the time period, the higher the industrial risk rate and the larger the firm the more feasible a rebate and penalty scheme. New Zealand has a predominance of relatively small firms for whom rebates would not be justified because a zero accident experience has a reasonable degree of probability associated with it. Although penalties are not theoretically inconsistent at any firm size, frequency or time period, the element of unusual catastrophe or unlucky occurrence in high accident outcomes, must be considered. This could mean that individual accidents need investigation on a fault basis if equity is not to be contravened and this would be at variance with the underlying no-fault basis of the scheme.

A good rebate and penalty scheme needs to be predicated on accurate levy rates and the industry well specified if rebates and penalties are to have anything to do with safety as opposed to removal of rate inequity. The Freezing Industry appears to be an ideal industry, because all the firms are relatively large (several employing over 1,000 employees) and because the frequency rate of about 30 accidents per 100,000 man-hours experienced in recent years makes the frequency rate exceptionally high (more than twice as high as the highest rate considered in Chapter IV which was based on pre-A.C.C. figures). Because of the high number of expected accidents, use of a one-year time period is justified. If

rebates and penalties are to relate closely to current experience, this has great advantage over a longer time period.

Calculations of likely rebates and penalties made for this industry show that the sizes of such assessments are sensitive to the base of frequency chosen, i.e. whether all accidents are considered or only those of greater than seven days' duration. The use of actual costs rather than frequency is likely to be contentious and will involve considerable value judgments as to the weighting to be placed on long-term accidents.

Before firm general conclusions can be drawn, the potential for rebates and penalties within other industries should also be investigated in detail. One suspects that for many industries several of the largest firms may have enough expected accidents to be merit-rated according to statistical criteria, but the others may be too small to be so rated. This could mean small firms pay a higher basic levy so that rebates can be given to the bigger firms, which could arise if economies of scale and vertical integration favour the large firms' accident rates.

If rebates and penalties are to be effective, they must be reasonably related in time to the actual experience and be of sufficient size to be effective (otherwise inflation and tax deductability provisions will diminish their impact). They should be assessed on highly objective, readily understandable criteria and be subject to full appeal provisions.

The present legislation provides no such assurance. The lack of limitations according to firm size or levy rate so that even the self-employed are included, the claims rather than frequency basis, and the considerable degree of discretion given to the Commission, do not augur well for the implementation of the scheme. In addition, rebates and penalties are unlikely to accomplish safety objectives while the perverse effects of 100% first-week compensation and existence of arbitrary medical certification remain. Firms consulted in the Freezing Industry indicated strongly that penalties would be unlikely to have any real effect.

Thus it is doubtful whether rebate and penalty provisions can ultimately be the justification of a differential levy system. To make the charging procedures more closely accord with safety objectives, attention could be directed towards increasing the direct incentives on the employer by increasing the first-week provisions. The employer could carry the first four weeks or so of compensation (for the Freezing Industry on the Nordmeyer Report figures, this would cover approximately 86% of all accidents). To remove the perverse effect on the employee, 80% of wages could be paid during this time and the employee himself be required to carry the first few days. Because the levy would then cover accidents only of a more serious nature, the more unpredictable of the accident costs would be covered. Alternatively, the A.C.C. could compensate all accidents and levy the firm an accident tax of say \$300 per accident. This accident tax would be supplemented by a further percentage of payroll which would be unadjustable. It might be argued that either suggestion

could result in insurance removing the incentive effects. However, insurance of these costs would be voluntary and many firms would realise that by not insuring and by reducing accidents they can reduce their payments. Private insurance companies would be wary of insuring bad risks except at high premiums and this would also induce firms to reduce accidents.

If such a scheme can be devised to

- (a) impose some of the costs on the worker directly in recognition of the phenomenon of moral hazard and his contributory role in accident causation; and
- (b) to impose more direct costs on the employer without resorting to a contentious rebate and penalty scheme,

then the need for differential levies could evaporate. The levy would cover payments for more severe accidents which depend arbitrarily on factors such as age, dependency, marital status, etc. and which are largely beyond the control of the employer. Thus a flat rate of levy of say .6% (probably less in view of the increase in direct costs) could be made.¹ This would remove the anomaly of the self-employed levy, which is currently non-risk-related and have the undoubted benefit of removing from the Commission the need to justify its 204 class levy rates and adjust them regularly. A non-differential levy system would also smooth the way to the merging of accident and occupational sickness and later, perhaps, to allow extension to include sickness more generally.

The emphasis on Workmens' Compensation schemes during

1. This assumes non-work accidents are removed.

the present century has had a considerable impact on the industrial accident rate, but now the time has come to consider a broader cost allocation for industrial injuries in the hope that the accident rate can be reduced still further. The new New Zealand scheme provides a unique opportunity to test also the efficacy of financial incentives in reducing non-work accidents and it is to be hoped that this opportunity will not be lost. The increase of direct incentives in the industrial scheme will reduce the importance of differential levies both from an equity point of view and a safety incentive point of view. In such a case, a rebate and penalty scheme whereby it is necessary to measure a firm's performance against the industry average will no longer be necessary or justified.