



# **Lessons from Insurance for Welfare**

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**Final Report**

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## Preface

This report has been prepared for the Welfare Working Group by Michael Mills with assistance from Paul Clarke from MartinJenkins (Martin, Jenkins & Associates Limited). The views expressed in it are the author's and do not necessarily reflect those of the Welfare Working Group.

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# Introduction

This paper was commissioned by the Welfare Working Group.

Its purpose is to identify the key principles used in the private insurance industry and to discuss the application of these to the benefit system, so as to minimise the contingent liabilities of that system.

It focuses on:

- funding and system design
- assessment of the inflow and the outflow of claimants
- targeting of support
- delivery of services

It also explores how these principles can be applied to means tested, eligibility-based population administered welfare type schemes. In doing so it considers:

- options to reduce the long tail of liability
- claims assessment
- outcome delivery
- targeting assistance to reduce later liabilities.

While largely a first principles discussion, the paper does draw on the author's extensive understanding of the ACC scheme and other long tail statutory insurance schemes operating mainly in New Zealand and Australia. The paper is not intended to be a typology of different welfare and insurance schemes or to be a conclusive comparative analysis of the costs and benefits of welfare versus insurance schemes.

The view expressed in the paper are those of the author, and do not necessarily reflect those of the Welfare Working Group.

## Context

Loss of income arising from sickness, disability, personal injury and unemployment is a risk that most individuals (and their dependants) face during their lives.

How this risk is managed is not only important to the individuals concerned, but more generally to New Zealand's economic performance and social wellbeing.

This is because the events which give rise to loss of individual income also result in wider social and economic costs, including:

- the costs of lost productivity, from finding and training replacement labour and any associated disruption to productive processes
- the related health and social costs to individuals and their families that are sometime associated with benefit dependence
- the costs of administering welfare or insurance schemes
- the transfer and deadweight costs of providing income support, because resources used to provide income support are not available for other economic or social activities

These costs are economically significant. By way of example, they are shown in Table 1 for occupational disease and injury. There will be similar costs associated with sickness and other events that give rise to loss of income.

**Table 1: Estimated costs of occupational disease and injury in New Zealand 2004/5<sup>1</sup>**

	Cost \$ million	% of category	Description
<b>Category: financial costs</b>			
Production disturbance	573	12%	value of production lost and staff turnover costs brought forward
Human capital	3,050	62%	lost productive capacity of workers from incident until retirement
Health and rehabilitation	694	14%	workers health and return to work expenses
Administration	55	1%	administration of the compensation system and travel costs for workers

<sup>1</sup> Source: National Occupational Health and Safety Advisory Committee, 2006, The Economic Costs of Occupational Disease and Injury in New Zealand, Wellington.

	Cost \$ million	% of category	Description
Transfer	238	5%	deadweight cost of administering the welfare system and other government transfers
Other	293	6%	costs of carers, equipment and home modification in cases of disability.
<b>Category total</b>	4,903	100%	
<b>Category: suffering and premature death</b>	<b>15,981</b>	<b>100%</b>	Disability adjusted life years based on a value of statistical life year of \$184,000.
<b>OVERALL TOTAL</b>	<b>20,884</b>		

It is in the broad social and economic interest to minimise these costs, which can generally be achieved through ensuring that sufficient resources are allocated to each of the following activities:

- Prevention - reducing the likelihood and severity of adverse events through (for instance) making workplaces, homes, sports fields and roads safer, reducing the incidence of chronic disease through (for instance) initiatives to reduce both the demand for and the supply of cigarettes and alcohol, regulation of labour markets and policies supportive of economic growth
- Income protection - ensuring speedy access to income support to persons impacted by adverse events
- Rehabilitation and treatment – providing support for lasting return to employment and independent living by (for instance) fast access to necessary treatment services, by holding jobs open, by providing vocational and social rehabilitation, by ensuring that individuals in receipt of income support face appropriate incentives to take suitable employment and make necessary adjustments to their lifestyles
- Administration - ensuring that there are sufficient incentives on those providing income and other support services, to do so in ways that are administratively efficient but also in ways that results in the right resources being allocated to the right things in order to reduce the overall social and economic costs of dependence (as measured by long tail liabilities). To this end, schemes that are administratively cheap are not necessarily economically efficient.

It is the conclusion of this paper that how income support is provided and administered is important, and that different structural and institutional approaches to so doing can result in different incentives on those able to manage or influence each of the above costs of injury, sickness, disability and unemployment. It is also the conclusion of this paper that there are beneficial lessons from insurance that can be applied to the administration of welfare schemes.

## Welfare and Insurance Compared

Both insurance and welfare systems can provide income protection to individuals at risk of income loss through exposure to adverse events such as personal injury, illness, disability or unemployment.

Both arrangements allow individuals to manage risks to their income by sharing or pooling risks with others in similar circumstances.

Both approaches are able to employ a range of measures to minimise the total future costs of providing income support (their long term liabilities). For instance, across different insurance and welfare schemes it is common to see a variety of tools and techniques used to minimise long term liabilities, including:

- mechanisms to create incentives to reduce the risk of adverse events – for example, by providing premium discounts or other financial incentives to minimise claims
- claims management (gate keeping) arrangements to ensure that only persons with a legitimate entitlement to benefits are able to claim benefits
- case management arrangements, to ensure that beneficiaries receive needed treatment or rehabilitative services in order to reduce the need for and the overall cost of providing income support
- contractual and other arrangements with service providers to ensure that claims management, case management, treatment and other services are provided when needed, effectively and at least cost
- risk sharing arrangements, such as deductibles and defined benefit periods, to ensure that claimants and beneficiaries face incentives to work towards independent living in order to minimise the costs of their income support to the scheme.

There are, however, fundamental differences between welfare and insurance which result in different incentives on scheme administrators, claimants and others to manage the direct costs of income support as well the wider economic and social costs of the injury, illness, disability, unemployment and other events that lead to income loss.

### Welfare

Welfare provides assistance to citizens in need. In New Zealand in common with most countries, the presumption is that most citizens' needs will be met through employment either of the individual or of a family member, or through savings. Core benefit schemes are designed to meet needs that are unmet in this manner because:

- citizens are unable to find employment

- citizens are unable to work because of ill health or injury, or because they have dependents requiring their care
- citizens are able to find employment but this is inadequate to meet requirements of family members, for example children.

Participation in welfare schemes is universal. Unlike insurance, a person's eligibility to receive scheme benefits is not dependant on them 'joining' through the offer and acceptance of an insurance contract but by virtue of them being a citizen that meets any scheme eligibility criteria.

Unlike insurance, welfare schemes do not systematically exclude individuals considered to be at high risk of income loss, such as persons employed in seasonal work or at high risk of chronic disease. By contrast, insurance schemes seek to exclude cover to persons with a high risk of loss, such as persons with existing medical conditions for health insurance.

Welfare schemes provide cover for income loss resulting from situations or causes that can be strongly influenced by the decisions and actions of the individuals covered, such as family dissolution. From an insurance perspective family dissolution that results in income loss and entitlement to the domestic purposes benefit is unlikely to be considered an insurable event, because of the potential for moral hazard – whereby persons might organise their affairs to take advantage of insurance, tax or welfare benefits.

The key parameters of welfare systems are set in law and regulation, and typically include:

- universal eligibility criteria
- case management arrangements and obligations on beneficiaries
- benefit levels, including whether they are income related, and tapering arrangements
- funding arrangements.

Unlike insurance, welfare is tax payer funded on a pay as you go basis. This means that the expected costs of the scheme are estimated or forecast each year and funds appropriated by Parliament to pay these costs on a year by year basis. This is a significant point of difference between welfare and insurance, which results in different incentives on both those administering welfare and insurance schemes and those who fund them. These incentives matter, and can result in a greater focus on risk and its management by insurance schemes.

## Insurance

There are a variety of different types of insurance schemes. Typical of each is that:

- it is a mechanism for managing risk (uncertainty), such as the future timing and financial impact of accidental injury, illness or unemployment through the pooling (or sharing) of risk (including between insurers through reinsurance and other financial risk management techniques)

- it involves the actuarial assessment of risk and its future cost to the insurer. This may involve disclosure of factors relevant to the risk from the person seeking insurance to the insurer
- in return for a premium the risk (and its future estimated cost) is transferred from the insured to the insurer
- if the risk eventuates, the insurer is obligated (contractually) to provide agreed benefits and meet their costs.

Unlike welfare, insurance markets are less inclined to provide cover for some types of risks, such as those that might involve a high degree of moral hazard or exposure to systematic factors that are difficult to estimate and price, such as economic shocks or systematic failures of the type that led to leaky building failures<sup>2</sup>. In such situations markets cannot always be relied upon to supply needed insurance without state intervention (typically through establishment of compulsory insurance requirements, state participation in insurance markets, or subsidies or income transfers to facilitate supply and demand).

## Pure Insurance

In its purest form, insurance is a contract or agreement between one party (an insurer) and another party (the insured) to provide, in exchange for a set premium, agreed benefits to the insured on occurrence of future specified but uncertain or contingent events affecting the life or property of the insured.

On the basis of actuarial calculation the expected costs of the insured risk are calculated, and:

- the insurer decides whether or not it is willing to offer an insurance contract at what price (taking into account the expectations of shareholders, for dividends and risk, and market conditions)
- the person seeking insurance decides whether or not to accept the offer, taking into account the price and quality of the insurance on offer compared to alternatives that may be on offer from other insurers.

The parameters of such schemes, which in New Zealand include income replacement<sup>3</sup>, health and disability insurance as well life, property, fire and general, professional indemnity and public liability insurance, are defined directly by insurers within the context of competitive markets, and include:

<sup>2</sup> The systematic failures that led to leaky buildings in New Zealand resulted in decisions by most insurers including Civic Assurance (the insurer of local government) not to insure building certifiers or to exclude weathertightness failures from professional indemnity and home warranty products in New Zealand.

<sup>3</sup> The Insurance Council of New Zealand estimated that general insurers wrote in the order of \$1,100 million of income replacement, health and disability insurance in 2009.

- conditions of eligibility (for example pre-existing conditions are commonly excluded from health insurance policies)
- the premium levels, which are typically risk rated, and may vary between individuals on the basis of disclosed risk factors)
- the benefits payable – including excess, deductibles, co-payment and stop loss arrangements designed to manage risks to the insurer
- the period of cover
- reciprocal obligations, such as the subrogation of rights from the insured to the insurer to sue other parties who contribute (through their negligence) to an event giving rise to an insured risk.

In practice, most insurance schemes are regulated to some extent by government. At a minimum, regulation will typically include some element of market conduct regulation and prudential regulation. The purpose of market conduct regulation is to ensure that consumers are able to make informed decisions on entering into insurance arrangements and that any disputes concerning the provision of expected benefits are efficiently resolved. The purpose of prudential regulation is to minimise (but not eliminate) the risk of insurer insolvency.

## Statutory Insurance

Statutory insurance schemes operate within and outside of New Zealand, and enable insurance approaches to be taken to the cover of risks that markets may be unwilling to insure or fully insure because of the nature or the risk of the degree of moral hazard involved. There are examples of statutory schemes that are delivered entirely by state monopolies and others that are delivered by competing private insurers.

Unlike pure insurance schemes, the purposes of statutory schemes are prescribed in law and regulation together with their scopes of cover, benefits and sometimes how they are to be administered. In New Zealand statutory schemes include EQC cover for the costs of damage to and loss of property arising from earthquakes, volcanic eruptions, tsunami and other natural disasters, and ACC for the cover of lost income and treatment costs arising from personal injury. In Australia and many other jurisdictions they include home warranty insurance, workplace injury cover, and motor vehicle injury cover. In Europe and North America income protection insurance is typically provided through statutory or social insurance schemes rather than welfare schemes.

Statutory schemes vary, and have features in common with both welfare and pure insurance schemes. Both EQC and ACC are delivered (on a monopoly basis) by crown entities and are not currently open to underwriting competition. In Australia, injury and home warranty insurance schemes exist in both competitive and non competitive underwriting environments, with varying roles for private insurance companies (ranging from full competitive underwriting to competitive and outsourced claims administration). The work account of the ACC scheme was briefly

opened to underwriting competition and delivery by competing private insurers in 1999 and 2000 and is currently under review by government.

Unlike pure insurance schemes, statutory schemes are highly regulated and quite prescribed in their operation. In addition to prudential and market conduct regulatory requirements, legislation and regulation typically prescribes matters such as the scope of cover and the entitlements of claimants. In addition, regulation may sometimes constrain the ability of the insurer to risk price premiums or to refuse cover and in some cases statutory schemes are not required to be fully funded or are only part fully funded. Some statutory schemes involve explicit State guarantees of underwriting risks.

### ACC as an example of a statutory insurance scheme

The ACC scheme, like welfare, provides universal cover for defined injury events. It is provided for in law and regulation. It gives universal access, in the event of personal injury, to certain defined benefits. Features of the ACC scheme include:

- that it replaced the common law right to sue in negligence for the costs of injury, in return for
- cover in the event of personal injury in New Zealand (or outside of New Zealand for persons ordinarily resident in New Zealand) for:
  - personal injury caused by an accident to the person
  - personal injury that is treatment injury suffered by the person<sup>4</sup>
  - mental injury caused by certain criminal acts
- entitlements to persons with cover can include (depending on particular prescribed circumstances related to the claim and earner status of the claimant at the time of injury):
  - rehabilitation, comprising treatment, social rehabilitation, and vocational rehabilitation - to assist in restoring the claimant's health, independence, and participation to the maximum extent practicable
  - weekly compensation (for loss of earnings and potential earnings)
  - lump sum compensation for permanent impairment
  - funeral grants, survivors' grants, weekly compensation for the spouse or partner, children and other dependants of a deceased claimant, and child care payments

<sup>4</sup> This includes: personal injury that is a consequence of treatment given to the person for another personal injury for which the person has cover; personal injury caused by a gradual process, disease, or infection that is treatment injury suffered by the person; personal injury caused by a gradual process, disease, or infection consequential on personal injury suffered by the person for which the person has cover; personal injury caused by a gradual process, disease, or infection consequential on treatment given to the person for personal injury for which the person has cover; and personal injury that is a cardiovascular or cerebrovascular episode that is treatment injury suffered by the person.

- management of the ACC Scheme by a Crown Entity (the Accident Compensation Corporation) including its:
  - processing of applications from claimants for cover
  - determining claimants' eligibility to scheme entitlements
  - managing the provision of entitlements to claimants
  - financial management of Scheme accounts including a Non-earners' Account and a Treatment Injury Account. In managing each Account, the Corporation must ensure that revenue and expenditure relating to that Account is received, applied, and accounted for separately.

ACC cover is mandatory and universal. When opened to competitive tender in 1998, private insurers were required by law to offer cover to any employer that applied for cover. Employers who failed to choose an insurer were assigned by a market regulator to an insurer to ensure continuous cover of employees.

### ACC accounts

For purposes of funding and management, the ACC scheme operates as a number of discrete accounts. Its legislation prescribes how each account is to be funded. The main accounts are described below:

- Work Account, which provides cover for loss of income resulting from workplace injury. Employers pay a levy (premium) in return for which the costs of rehabilitation and lost earnings resulting from workplace injury are met. This allocates the costs of workplace injury to those most able to prevent them and support workplace rehabilitation – employers. Key features are:
  - Levy rates are weighted according to industry risk groupings. This creates an incentive to reduce the risk. This incentive works only weakly, because it acts at the industry level and rates only adjust slowly.
  - Employers are required to meet the cost of the first week of lost earnings. This excess provides additional incentives.
  - Discounts are available to employers who meet workplace safety audit requirements. This creates a stronger incentive to ensure safe workplaces.
  - Larger employers can join the accredited employer's scheme, which allows them to self-insure. This provides a strong incentive to prevent workplace accidents. It also provides a strong incentive for the employer to provide opportunities for workplace rehabilitation (for example by light duties or part time working) that can be an effective pathway back to full time employment. Stop loss insurance is mandatory (with some options) for these employers.

- The earners' account, which provides cover for loss on earnings attributable to physical injury outside of the workplace (excluding motor vehicle related injury). The earners' account is funded by a levy on employees. The levy is a percentage of income, subject to a cap which reflects the maximum weekly payment available under the scheme.
- The motor vehicle account, which provides for loss of earnings attributable to physical injury arising from motor vehicle accidents. The motor vehicle account is funded on a levy paid by motor vehicle owners at the time a motor vehicle is registered. The levy is risk priced on the basis of claims attributable to different types of vehicles, with motorcycle owners (for instance) paying a higher levy than car owners.
- The non-earners' account, which provides cover for treatment costs, and loss of potential earnings to non-earners. The costs of this account are paid for by annual budget appropriations from Government.

## Discussion

### Key differences between welfare and insurance schemes

While welfare and insurance schemes both allow individuals to pool and manage risk there are important differences between the two approaches. It is the conclusion of this discussion that insurance based approaches result in greater focuses on risk and its management than welfare based approaches. This is because:

- Insurance schemes are full funded, meaning that the premiums they charge need to be struck at levels sufficient to cover all of their future costs (or liabilities) that might result from exposure to insured events during the period of an insurance contract. By contrast, welfare schemes are managed on a pay as you go basis, meaning that the costs of providing agreed benefits are calculated and funded each year. In the case of the ACC, not all of the accounts are fully funded yet, meaning that (in theory) average premiums might be expected to drop once full funding is achieved
- In pure or unregulated markets, insurance premiums are struck at 'actuarial fair' levels. For risks with a high likelihood of occurring, such as income loss from illness for an obese middle aged man with a history of heart disease, actuarially fair premiums will be significantly greater than those for a young and health woman with no history of disease. In some cases actuarially fair premiums will be unaffordable to individuals in need of cover. In such cases government's may decide to intervene in the operation of the market through (for instance) compulsory requirements to purchase and offer insurance, regulation of prices, or involvement of a state insurer.
- Insurance typically involves a contractual relationship between the insured and the insurer, whereas welfare involves a statutory relationship between a beneficiary and the state. In the case of the ACC scheme, contracts between employers, motor vehicle owners, earners and non earners and the ACC Corporation are implicitly provided for in law. In the case of EQC cover, contracts are explicitly entered into at the time that household fire and general insurance is purchased
- A premium is paid by the insured to the insurer - in advance of receiving the insurance cover and regardless of whether or not the insured risk materialises. In a competitive market, insurers make profit by reducing the underling risk or through efficient and innovative approaches to claim and case management. This is not generally the case in welfare schemes. There are some exceptions, although so called social insurance schemes can have the character of additional taxation rather than insurance schemes. In the case of the ACC scheme, premiums are individually calculated for employers, earners and motor vehicle owners, and collected from them both directly (for employers) and through tax and motor vehicle licensing mechanisms (for earners and motorists).
- Insurers invest premiums and sometimes reinsure or securitise their risks. Benefit schemes are typically funded out of general taxation on a pay as you go basis. In the case of the

ACC scheme, the ACC Corporation invests and actively manages a large diversified fund. EQC's underwriting risk (of a Wellington earthquake for instance) is reinsured by several off shore reinsurance companies. Positive returns on funds offset pressure on premiums. There may also be broader economic benefits and risks associated with the establishment of scheme funds that have not been considered within the scope of this discussion

- Insurance, unlike welfare, can involve competitive underwriting. The ACC scheme was briefly opened to competitive underwriting in 1998. By contrast, welfare schemes are directly underwritten by the tax payer. The significance of competitive underwriting is discussed later in this paper.
- Benefit schemes take into account social equity considerations. This can significantly influence decisions regarding the allocation of case management resources and efforts. For instance, beneficiaries might be provided with access to education or training even when there is no expectation that provision of such education or training will result in improved employment outcomes. This is also, to a limited extent, the case for ACC. Adding to the cost of the ACC scheme between 2001 and 2007 were government policy decisions to change access to a number of entitlements for equity reasons, particularly in the areas of social and vocational rehabilitation. That said, the dynamics of statutory insurance schemes mean that the cost implications of such decisions for long tail liabilities are very transparent
- Insurance markets are reluctant to cover risks resulting from an element of individual choice (moral hazard) whereas some elements of benefit schemes, for example payment of income support to solo mothers, can be construed in this manner. Private health insurance schemes typically exclude cover for existing conditions. Similarly motor vehicle damage insurance typically excludes cover for some classes of performance modified vehicles.
- To a greater degree than for insurance schemes, benefit schemes cover events that are subject to systemic risk – for example, a general increase in unemployment due to macro-economic conditions. In such circumstances, case management activities can have some displacement effect. For example, high intensity case management may succeed in placing a worker into employment, but this may be at the expense of another unemployed worker also looking for work. The eventuation of risks, such as those that arose as a result of the systematic failures that gave rise to the leaky building crisis, can negatively impact on the availability of insurance cover for particular types of risk.

One consequence of the relative vulnerability of insurance schemes to systemic risk is that it does make assessment of forecast total liabilities open to a greater degree of forecasting uncertainty. For this reason, it may be more difficult to accurately estimate the contingent liabilities of the welfare system than the ACC scheme.

- To a much greater degree than for benefit schemes, the adverse events commonly covered by insurance schemes are amenable to ex ante reduction in incidence through risk management approaches. This is important because it becomes possible to design schemes that create incentives to manage risks. Conversely, avoidance of unemployment is less amenable to this approach. For this reason, there are limits to the extent that pure insurance can be applied to the management of risks covered by the welfare system.
- Insurance schemes are more likely than welfare schemes to seek to cap potential liabilities through time limited or lump sum payment of benefits. That said, the ACC scheme provides earning related compensation for as long as an individual is unable to work because of the effects of injury.

## Welfare and insurance schemes result in different incentives

As a result of these differences, the incentive effects of insurance and welfare schemes are different, either absolutely or by degree. Insurance schemes typically result in better pricing of risk and improved incentives for efficient administration. These differences, in theory, should result in more focus on risk management and efficient scheme administration for insurance based approaches.

Differences affect the decisions and actions of premium payers and beneficiaries as well as scheme administrators. They also affect the incentives on those who fund insurance and welfare schemes to effectively monitor and influence scheme performance on an ongoing basis.

These differences can also contribute to cultural differences and attitudes towards welfare and insurance schemes, and perceptions of their relative 'toughness' or 'softness' and 'fairness'.

Particular features of insurance and welfare that result in different incentive effects relate (in particular) to significant differences in:

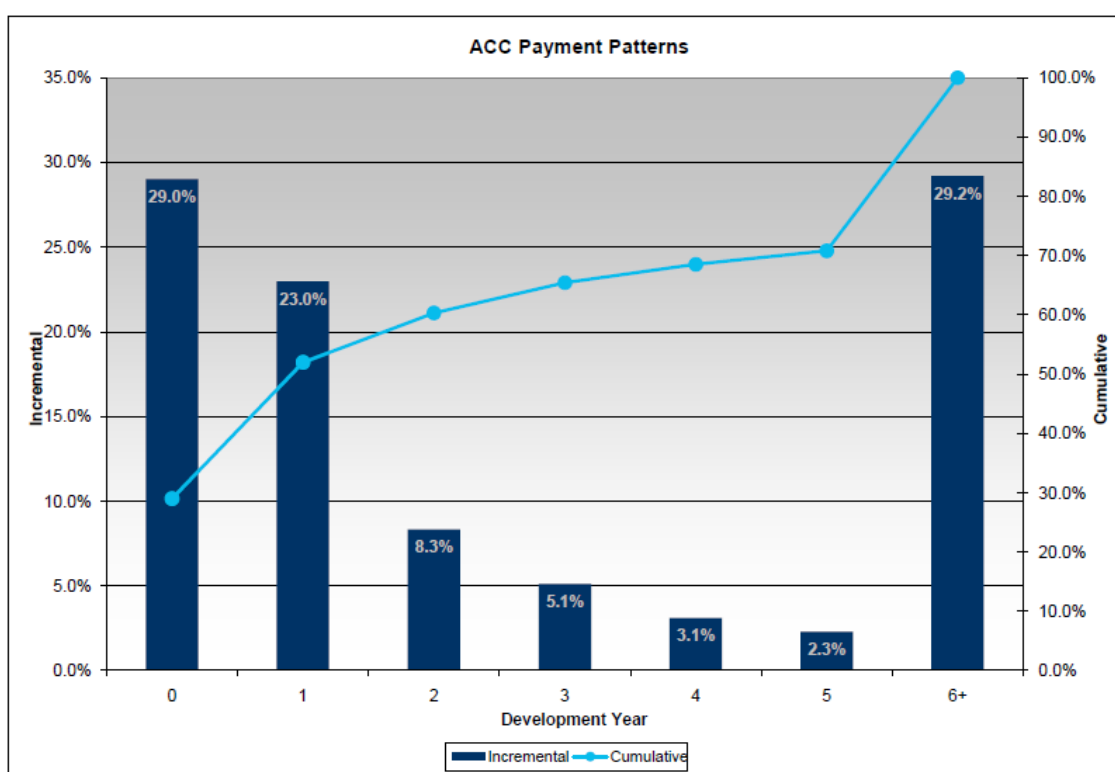
- funding arrangements
- how the schemes relate to those that fund them
- the exposure (or potential exposure) of schemes to competitive underwriting.

## Because of how they are funded

The most important difference (arguably) between insurance and welfare schemes are that insurance schemes are fully funded. In practice, this means that the funding and management of insurance schemes are based on estimates of the full expected costs (over the life of a scheme) of all insured risks.

Figure 1 below shows for the ACC scheme how for the costs of claims attributable to events in a particular year mature or build up (year by year) over time as more and more treatment and rehabilitation services are consumed and weekly compensation payments made. It shows that while 60% of claims from a particular year are fully paid out after three years that the annual costs of the remaining long tail of claims decline very slowly and result in significant long tail costs to the scheme.

**Figure 1: ACC Payment Patterns** <sup>5</sup>



The transparency associated with full funding is important for a number of reasons:

- it makes clear and highlights the economic costs of adverse events (such as sickness or personal injury), and the potential gains to be had from prevention
- it creates a strong focus on the performance of the scheme over time, and the need to ensure that claims do not mature into long tail claims - a critical factor in managing the costs of claims is to reduce the risk of workforce detachment
- it makes clear the benefits and costs of policy changes to scheme cover and entitlements

<sup>5</sup> ACC Actuarial Services (2008), Methodology for Setting 2009/10 Levy Rates in the Work, Earners', Residual Claims and Motor Vehicle Accounts, Wellington

- It provides an objective and quantifiable basis for managers and governments to assess the effectiveness of different approaches to claims management. Although full funding is not essential for this, it does support robust and transparent assessment. For instance, it provides a quantitative means of assessing the net benefit of purchasing a particular course of treatment or medical intervention. For instance, the potential for a person suffering a chronic health condition to work in paid employment might be dependant on their physiological response to a particular course of medical treatment (which may or may not be on the schedule of treatments paid for by PHARMAC). In some cases, there may be a clear benefit to being able to purchase a non subsidised course of treatment or an elective surgical procedure from outside of the public health system if it results in the claimant being fit or work sooner and savings in the amount of income support paid by the scheme.

As a result of full funding:

- Incentives on individual's and others to exercise control over (to mitigate) the frequency and severity of adverse events may improve – because different risks (and risk taking activities) can be actuarially quantified and priced. For instance, the costs of health insurance to a cigarette smoker are higher than to a non smoker). By putting a price on risk an incentive is created for individuals to make choices and behave in ways that contribute to desired public policy outcomes. In the case of workplace injury, for instance, accredited employers face financial incentives to identify particular workplace activities and processes that contribute to high injury costs, and to focus their resources on mitigating these risks. Differences in price between ACC cover for riding a motor cycle and driving a car provides a clear signal to individuals that the costs (and likelihood) of injury from motor cycle riding is greater than from car driving.
- Incentives to manage scheme entry may improve – because scheme administrators must meet all future claims costs from premiums that have already been collected (if future premiums are not to increase), they face very strong incentives to ensure that only eligible persons are able to collect scheme benefits.
- Incentives to effectively manage accepted claims may improve – because scheme administrators must meet all future claim costs from premiums that have already been collected, they face very strong incentives to ensure that the right treatment and rehabilitative services are purchased at the right time and price in order to minimise long tail costs of providing income support.
- Incentives on those who fund the scheme to hold its administrator to account for its performance may improve – because the levies or premiums they pay each year will increase and decrease in proportion to annual actuarial assessments of the scheme's performance. For instance, even though the non-earners' account of the ACC scheme is paid by Parliamentary appropriations, scrutiny of the account's performance by Cabinet and Parliament is made easier because of the transparency associated with full funding.

In other words, full funding strongly improves incentives to manage risks and how the costs of insured risks are managed over time. As a result, full funding can be expected to result in dynamic effects that result in demand for and innovation in the use of a variety of case and claimant management methods and other measures needed to manage down long tail claims liabilities.

The long tail costs of some types of risks will, however, be easier to accurately estimate than others. The risk of death, for instance, is easier for actuaries to calculate than the risk of lost income from unemployment. This is because macro economic shocks are harder to accurately forecast than the factors that contribute to average mortality rates.

## Insurance schemes involve a different relationship to those that fund them

Insurance arrangements result in different set of relationship dynamics between those who administer them and those who fund them.

This is because the premiums or levies charged each year provide a transparent and relatively simply measure of performance (relative to past performance or to other schemes). For schemes that are full funded, increasing premiums generally indicate poor performance or increased risk, whereas decreasing premiums generally indicate good performance or declining risk. This transparency makes it easier for boards and governments to monitor scheme performance and to hold administrators of insurance schemes to account for outcomes.

Using ACC as an example, because each of the accounts operates on a full funded basis, because a levy is struck each year to fund each account, and because the levy is directly paid by a premium payer the performance of the ACC receives considerable attention from employer and business groups and other premium payers (such as motorcycle owners). For example, proposed changes to the annual employer levy are proposed and published and then consulted on with employers. Through this process, employer concerns with ACC performance can result in significant scrutiny of the ACC's performance – both publicly and by government.

By contrast, the annual process for deciding welfare appropriations tends to be focussed on the relatively small administrative component, and the relationship between administrative effort and long tail liabilities is not explicitly considered. In a fiscally constrained environment, because long tail liabilities are not quantified and recognised in the Crown accounts, it may be possible to reduce administrative costs without full consideration of the implications for future long tail liabilities (which might dwarf administrative savings).

## Because of the potential for competition

Competitive underwriting (or the potential for it) can strengthen incentives on scheme administrators to operate efficiently,

The profit element combined with contestability creates strong incentives on insurers to:

- price risk accurately
- perform well over time
- manage claims – cost effectively
  - only accept valid claims and decline marginal claims
  - minimise the total cost (over time) of each claim, for example through:
    - ..1. effective interventions – fast access to necessary medical services for instance or finding alternative work or employment
    - ..2. efficient claims management
    - ..3. efficient purchase of rehabilitation services
    - ..4. innovate to find more effective approaches to claims management
  - achieve the right balance between different entitlements such as treatment , rehabilitation and income protection
- These incentives can be simulated in benefit schemes, through administrative requirements, purchase arrangements monitoring and evaluation but are likely to be consistently stronger in insurance schemes.

## Conclusions - lessons from insurance for welfare

It is the overall conclusion of this paper that insurance based approaches are more likely to result in greater focus on risk management and administrative efficiency.

In summary:

### **Achieving transparency between the funding and pricing of a scheme and its performance matters**

Liability assessment is possible without full funding, but full funding sharpens the incentives for accurate liability assessment as the consequence of inaccuracies can be a highly visible, and as recent events with the ACC illustrate have significant implications for the Crowns' operating accounts and balance sheet.

It also results in better pricing risk. This can create strong incentives for those with control over risks (if exposed to the costs of risks that they control) to invest in risk mitigation.

Full liability assessment is, in principle, possible for a benefit system, though as noted it may be subject to a greater degree of forecasting risk, due to the influence of systemic issues such as macro-economic conditions.

### **Transparent funding provides a sound basis for targeted claims administration needed to effectively manage long tail liabilities**

In accident insurance, total liabilities are driven by the long tail.

For example an analysis of ACC claims data shows that 85% of claims in the period July 2000 to December 2009 were for less than \$500 and accounted for only 6% of payments made. In contrast, claims over \$20,000 accounted for less than 1% of total claims but 52% of payments made.

Effective targeting to reduce the long tail requires at least two elements:

- the development of a set of indicators that measure whether an individual is at risk of becoming a long term beneficiary
- a basis for allocating targeting as a result.

In practice, in both insurance and welfare, a critical issue is bringing someone back into the workforce within a critical time (less than six months) to prevent detachment from the workforce. The analysis referred to above also showed that claims are 60% paid after three years. There is then a long tail of claims that decline very slowly – typically of people who have become detached from the workforce.

Timing is therefore critical in targeting: unnecessarily early intervention has the potential for high deadweight cost as many individuals find their way back into the workforce of their own accord, but a delayed intervention can be too late to be effective.

Targeting is already practiced for categories of benefit in New Zealand. Its aim is broadly to reduce the number of long term beneficiaries. While this is a key driver of liabilities, it is possible that a more explicit objective of reducing total liabilities would help sharpen targeting.

### **More transparent performance linked to outcomes justifies access to a full range of measures needed to achieve performance**

In practice, insurers use a full range of measures to manage claims liability. The ACC for instance, has the ability to directly purchase medical treatments from private providers in order to reduce the greater costs of income compensation through early return to work

In order to minimise long tail liabilities in the welfare benefit schemes, all of the following measures commonly used to manage long tail liabilities in insurance warrant consideration:

- conditions or restriction on cover and entry
- potential for risk sharing, for instance through co-payments or stand downs
- Initial claims assessment, to estimate the potential long tail impact of particular claim
- case management, to ensure that reciprocal expectations between the claimant and administrator are clear, and the right bundle of treatment, rehabilitation and other interventions are provided (at the right time) in order to minimise dependence on income support
- initiatives to encourage greater employer involvement, including exploration of ways of providing financial or other incentives for employer involvement and maintenance of employment relationships. Although not applicable to all forms of insurance, employer involvement can be important in managing rehabilitation from injury, particularly through providing opportunities for early return to work (without prejudicing long term outcomes) through light duties or part time working.
- caps, time limits, steps downs and capitalisation of benefits, to ensure that incentives on claimants are aligned with scheme outcomes.

### **The introduction of some element of competition to scheme delivery could be useful in further reducing long tail liabilities**

Two types of competition are commonly associated with insurance – competitive claims administration and competitive underwriting.

In addition to competitive underwriting that has already been discussed, under ACC's accredited employers' scheme, employers are able to contract claims management to so-called 'third party administrators' (TPAs). The services they provide vary from case to case, and can range from full claims management including claims administration and case management, to the provision of advice to support the employers own claims management.

The existence of multiple TPAs provides employers with an opportunity to compare effectiveness in claims management across TPAs. However, the absence of clear and available metrics means that TPAs are changed only rarely in practice. One TPA is owned by ACC and has provided services on ACC's behalf on a pilot basis. This has provided an opportunity to assess relative performance of two providers (ACC itself and its TPA).

Given that administration accounts for a relatively small cost of total claims, a key selection criteria will be TPA's ability to manage back large claims, rather than price.

Because of the relative size of the benefit system, there are opportunities to consider separately the outsourcing of claims administration and case management. One reason to do this would be to be able to establish benchmarks against which performance can be prepared.

In practice, in the case with TPAs, case management services are contracted on a fixed fee basis [check this is true]. In the case of the benefit system, there are opportunities to use outputs based funding, whereby the service provider is paid on success in moving a recipient back into employment.

An issue in such circumstances is determining metrics on which employment is considered sustainable.

### **There are limits on the application of insurance to welfare benefits schemes**

The risk of income loss arising from unemployment, sickness or disability may potentially be insurable. However, not all events leading to income loss are insurable (in a pure sense). A number of benefits including DPB and Working for Families are not usually triggered by adverse events and are primarily transfer payments.

Any approach to replacing welfare benefits with loss of income insurance would need to consider that:

- not all unemployment is triggered by an adverse event (for example those who are not able to find employment in the first place) and so it is unlikely to be possible to provide insurance coverage for all eventualities.
- the provision of income support in the event that insurance coverage fails for some reason.

In other words, adoption of insurance approaches would need to consider arrangements for income adequacy in some specific 'non insurable' situations.