



The future of insurance
through superannuation

Association of Superannuation
Funds of Australia

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Glossary

Acronym	Full name
ABS	Australian Bureau of Statistics
APRA	Australian Prudential Regulation Authority
ASFA	Association of Superannuation Funds Australia
ASIC	Australian Securities and Investments Commission
ATO	Australian Taxation Office
CGE	Computable general equilibrium
FIFO	Fly-in, fly-out
FTE	Full time equivalent
FSC	Financial Services Council
GDP	Gross domestic product
IP	Income protection
OECD	Organisation for Economic Co-operation and Development
PMIF	Putting Members' Interests First
PYS	Protecting Your Super
TPD	Total and permanent disability
YFYS	Your Future, Your Super



Almost **10 million** Australians have at least one type of insurance (life, TPD or IP) provided through superannuation



Almost **50,000 new claims** were admitted through superannuation life, TPD and IP insurance policies in 2021, totalling **\$6.6 billion in claims paid**.



These members, who might not have otherwise had cover, **had** an average **sum insured** for both life and TPD of around **\$136,000 and \$4000** (per month) for IP.



Insurance in super is relatively efficient compared to other types of insurance



High admission rate of **98%**



Tax efficient as payments are made on pre-tax income



Payout ratio ranging from **80-95%**



Lower distribution costs reduce premiums per dollar of cover

There remain opportunities to refine insurance in super to strengthen outcomes for members



Better designed policy and data access could potentially result in a **reallocation of \$1.2 trillion (34%) of current default cover** to better align with insurance need.



A greater focus on wellness and return to work could assist almost **83,000 members return to work** over 40 years **boosting GDP by around \$1.9 billion by 2062**.



Early intervention and broader access to treatment could also potentially reduce social welfare and unemployment costs by **\$224 million** a year by 2062.

Executive summary

This report provides new economic analysis to demonstrate the features and benefits of Australia's system of insurance through superannuation. It examines the role of this product within the broader superannuation system and insurance ecosystem. The report identifies two areas for potential future improvements: better use of member data to set coverage levels and greater flexibility to encourage continued workforce participation after an incident. New economic modelling highlights the potential benefits for members, but also for broader economy and society.

Insurance through superannuation

An important feature of Australia's system of superannuation is the provision of default insurance policies to members on a group insurance basis. Almost 10 million superannuation accounts have insurance provided through their superannuation such as life insurance, total and permanent disability insurance (TPD) and/or income protection (IP).

The inclusion of insurance in superannuation dates back to prior to the introduction of compulsory superannuation, with private markets recognising its value before governments. Reviews have found it consistent with the objectives of the superannuation system because it provides cover until the end of working lives. Further, disability and retirement are interlinked: around a quarter of members retire early due to disability or to care for somebody with disabilities. With some exceptions, it is mandatory for funds to offer insurance in MySuper products on an opt-out basis. These arrangements recognise that the benefits of insurance extend beyond the individual member to government budgets.

Insurance through superannuation provides an automatic, safety-net level of insurance for temporary illness, permanent disablement or death for members or their beneficiaries. By covering a large pool of employees, it reduces costs associated with the retail distribution of insurance and helps limit the volatility of premiums over time. Without insurance through superannuation, members would avoid premium costs, but would have a much lower level of insurance or none at all, welfare costs to government would be higher, and some members may not be able to access insurance (such as because of their occupation or medical records). Being insured for death or permanent disability reduces the financial and personal costs associated with such an event. It also provides peace of mind to members that their family is protected in the event of their death or permanent disability.

According to APRA figures, in 2021, 10,135 member claims **were made with an average life insurance sum insured** of \$137,000 each. **In the case of TPD**, 16,052 member **made claims with an average sum insured** of \$136,000 each. Around 50,000 members – 30,000 ongoing from previous years as well as 20,000 new claimants – received IP benefits **with an average sum insured** of \$4,000 per month.

To understand the real-world impact of insurance through superannuation, consider the following example. A family with two children aged under 5 where one parent works full-time and earns \$70,000 per year, while the other works part-time and earns \$40,000. If the primary income earner were to suffer a serious permanent injury at age 35 the family could experience a fall in living standards of almost 29% a year on average over their remaining working life – and rely heavily on government welfare. With TPD cover of \$250,000, the payout would result in higher family living standards of \$6,316 per year on average until retirement – meaning they would be 16% higher than they would have been without insurance. Governments would save \$1,212 per claimant per year on average through higher tax receipts and lower welfare costs.

System features

Insurance through superannuation is an important part of an overall insurance ecosystem that includes also individual and advised insurance, and group insurance outside of superannuation. There are several features of insurance in super that indicate its value for members:

- It has a relatively high 'admission rate' on claims (up to 98%)
- It has relatively high average payout ratios (ranging from 79% to 95%)
- It is relatively affordable because of low distribution and administration costs.
- It is also a tax effective way for members to access insurance for death and TPD (noting that individual IP policies outside super are also tax deductible).



The default approach reduces the likelihood of individuals having insufficient insurance to meet their future needs if they suffer illness or injury. If it was offered on an opt-in basis, insurance in superannuation would shrink considerably – opt-in rates (where it currently operates) are just 18% – in part because of the many traditional reasons for underinsurance (with individuals not understanding, calculating or properly valuing future financial circumstances). Blue collar workers particularly benefit from default arrangements: by the nature of their manual and often hazardous work environments, they face higher risks, but evidence from where opt-in currently operates suggests their participation is lower – only 8% of blue-collar workers would opt-in to insurance through superannuation. Awareness levels about insurance in superannuation are low.

Even with insurance in superannuation, Australia has lower levels of insurance than several comparable OECD economies. Using a measure of life insurance premium volume to Gross Domestic Product (GDP), Australia (with a ratio of 1.5%) sits behind the Organisation for Economic Co-operation and Development (OECD) average as well as a number of comparable economies including the United States, the United Kingdom, and Canada. New Zealand, which has no group insurance in superannuation, is one of the OECD's most underinsured nations according to this metric at 0.9% of GDP, highlighting the role of group insurance in super in increasing insurance coverage.

From a fiscal perspective, insurance through superannuation reduces the social security costs of supporting underinsured individuals. Underinsurance refers to a situation in which an individual has either no insurance or inadequate levels of insurance to offset the financial disruption caused by an insurable event (such as disability or death). Underinsurance is estimated to cost the Australian Government more than \$600 million per annum in additional social security for life and TPD alone.

Recent changes and potential future improvements

Insurance in superannuation has undergone a number of reforms in recent years to make the system more effective, as recommended by a 2018 Productivity Commission report *Superannuation: Assessing Efficiency and Competitiveness*. That report found that not all members received good value from the insurance in their superannuation because of duplicative policies (and premiums) and excessive retirement balance erosion for low-income earners and those with intermittent participation in the labour market. It found that the average workers' retirement balance could be reduced by \$35,000, or 4%, due to premiums paid for insurance.

Protecting Your Super (PYS) and Putting Members' Interest First (PMIF) changes which introduced a shift to opt-in arrangements for younger members and those with low balances or no recent contributions, addressed some of the Productivity Commission's issues. In addition, the stapling introduced in the 2021 Your Future, Your Super (YFYS) changes could greatly affect the occupational mix in group insurance products, the full impacts of which are unclear. What it has again highlighted is the opportunity for additional actions that can be taken so member data can be better used to target the benefits of insurance through superannuation.

Separately, for several years, the question has been raised whether insurance through superannuation (IP or total and permanent disability) could be used to assist with providing treatment to members – so that people could return to the workforce, and in the case of IP, return earlier. A previous Parliamentary Inquiry in 2018 from the Joint Committee on Corporations and Financial Services, 'Options for greater involvement by private sector life insurers in worker rehabilitation' considered a specific proposal from the Financial Services Council (FSC). The Inquiry recommended not proceeding with the proposal, and instead proposed it be considered in detail by Australian Securities and Investments Commission (ASIC).

So, two potential improvement opportunities would be to

- i. better use member data to ensure, as the Productivity Commission put it, insurance through superannuation is provided in an efficient and equitable manner, and
- ii. allow for greater flexibility in insurance policy design and support, including through greater scope for insurers to invest in treatment, to support wellness and better return to work outcomes for members.

While not specifying the exact model for each of these options, the economic modelling highlights the significant member, economic and social dividends available from potential improvements.

Strengthening the system through better use of data to better target benefits

Insurance in superannuation can be strengthened by better access to member data and using this to design better policies. This would improve the value for money of policies. This addresses the problem that the 'average' level of default cover may not be the right level for many members, as found by the Productivity Commission in 2018.

With better access to and use of member data, such as age, income and dependents could see better coverage of around \$1.2 trillion dollars, equivalent to 34% of total sum insured across life, TPD and IP.

For example, reallocating life insurance based on age, marital status and dependents could result in changes to insurance cover and premiums. An older, married member with children could receive 20% extra coverage (i.e. taking a payout value from \$140,000 to \$170,000). By contrast, a younger married member with no children could reduce their cover by 22% (i.e. reducing annual premium costs from \$166 to \$130).

In order to reap these benefits, insurers will need access to this data. Collecting the data required to better match insurance coverage requires cooperation between government, trustees, insurers and members. It also requires insurers to design better policies while maintaining the benefits of group-rated insurance.

Strengthening the system through a greater focus on wellness and return to work

Insurers and trustees can play an important role in supporting individuals to return to work when it is appropriate to do so. However, current regulatory and legislative restrictions prevent insurers and trustees from paying for certain types of treatment or for funding out of pocket expenses that members with insurance often face through the health care system.

This report considers two scenarios to improve access to treatment and services:

1. Legislative barriers are removed to provide broader access to treatment and services. This allows insurers and trustees to provide treatment and other services to all members who claim.
2. Insurers and trustees not only provide broader access to treatment and services but provide faster access through early intervention. This faster access to treatment means some members may recover before needing to lodge a claim.

Our analysis finds 11% of IP insurance claimants who access rehabilitation treatment services are likely to return to work where they otherwise would not have. Broader access to treatment is also estimated to result in those who would have returned to work anyway doing so on average 5 weeks earlier. Smaller benefits also exist for TPD.

Broader access to treatment could assist an estimated 29,300 members to return to work over the first forty years. Once transitions back to the workforce and retirement is accounted for this would yield an additional 4,400 full-time equivalent workers to the Australian economy by 2062, boosting GDP by around \$1.1 billion in that year. At the same time a further \$126 million in social and other costs of unemployment would be saved.

Improving access to early intervention – including before members make a claim – would deliver further benefits. In this scenario 21% of IP claimants who access these services are likely to return to work where they otherwise would not have – 11% as a result of broader access to treatment and 10% as a result of access to early intervention. Broader access to treatment and early intervention is also estimated to result in those who would have returned to work anyway doing so on average 10 weeks earlier.

These expanded benefits see around 7,800 extra full-time equivalent workers delivering \$1.9 billion in additional GDP in 40 years' time. Social welfare and other unemployment costs would be reduced by \$224 million. In total, 82,945 members are assumed to return to work as a result of early intervention and broader access to treatment and services.

Deloitte Access Economics

1 Introduction

An important feature of Australia's system of superannuation is the provision of default insurance policies to members on a group insurance basis. Almost 10 million superannuation accounts have insurance provided through their superannuation such as life insurance, total and permanent disability insurance (TPD) and/or IP. Australia's community-rated, default insurance through superannuation is mostly provided on an 'opt-out' basis.

Insurance in superannuation has undergone a number of reforms in recent years to make the system more effective, as recommended by a 2018 Productivity Commission report *Superannuation: Assessing Efficiency and Competitiveness*. That report found that not all members received good value from the insurance in their superannuation because of duplicative policies (and premiums) and excessive retirement balance erosion for low-income earners and those with intermittent participation in the labour market. It found that the average workers' retirement balance could be reduced by \$35,000, or 4%, due to premiums paid for insurance.

Protecting Your Super (PYS) and Putting Members' Interest First (PMIF) changes which introduced a shift to opt-in arrangements for younger members and those with low balances or no recent contributions, addressed some of the Productivity Commission's issues. In addition, the stapling introduced in the 2021 YFYS changes could greatly affect the occupational mix in group insurance products, the full impacts of which are unclear. What it has again highlighted is the opportunity for additional actions that can be taken so member data can be better used to target the benefits of insurance through superannuation.

Separately, for several years, the question has been raised whether insurance through superannuation (IP or total and permanent disability) could be used to assist with providing treatment to members – so that people could return to the workforce, and in the case of IP, return earlier.

It is within this context that the Association of Superannuation Funds of Australia (ASFA) commissioned Deloitte Access Economics to conduct a study of the key features and benefits of Australia's system of insurance through superannuation. The report presents new economic modelling results of the benefits of strengthening the system, first through a system of better data access that better matches insurance cover to a members' circumstances and second through a greater focus on wellness and a return to work.

This report builds on previous analysis conducted by RiceWarner (now part of Deloitte), other consultancies, the Productivity Commission and insurers themselves. It is based on publicly available data about superannuation members from Australian Prudential Regulation Authority (APRA), the Australian Taxation Office (ATO), Australian Bureau of Statistics (ABS) and a range of data provided by insurers.



2 Features of insurance through superannuation

2.1 Introduction to insurance in superannuation

Insurance is a significant feature of Australia's superannuation system, in place to provide a modest, safety-net level of insurance policy to members, mostly on an automatic basis. This cover is in place to mitigate the adverse financial impacts associated with events that cause sickness, permanent disability or death and prevent an individual from earning an income temporarily, or for the remainder of their working life.

Insurance in super is offered at the group level, meaning that members' insurance levels are not tailored to their individual circumstances. A discussion of the difference between group and individual insurance is included below in Box 1.

Box 1: group insurance and individual insurance

Broadly speaking, insurance can either be a *group* policy, or an *individual* policy. Differences between these types of insurance are set out below.

Group insurance is insurance applied to an aggregated group. The premiums charged and levels of cover may differ by age, gender or occupation, but cover is provided automatically unless the member chooses to vary their insurance. Alternatively, the entire group may simply be charged the same premium, reflecting the average risk of the entire group. In other words, members are not subject to individual risk assessments.

Individual insurance is insurance applied to an individual. Individual insurance is provided after an assessment of an individual's particular risk characteristics, giving consumers access to tailored insurance that best fits their personal circumstances and provides access to higher benefits.



2.1.1 Size of the sector

Approximately 9.6 million superannuation accounts are currently covered by at least one type default insurance, making insurance in superannuation a sizable portion of the broader insurance sector – in 2021, the total sum insuredⁱ across life and TPD alone was \$3.3 trillion¹. For the three main types of insurance in superannuation (life, TPD and IP), insurance in super accounted for more than 50% of the total industry sum insured and lives insured (see Chart 2.1). Over this same period, around 45,000 individuals had new claims admitted against these policies, totalling \$3.7 billion in payouts to superannuation members and their families (claims are discussed in detail in Section 2.2).²

Chart 2.1: Superannuation share of sum insured and lives insured – December 2021



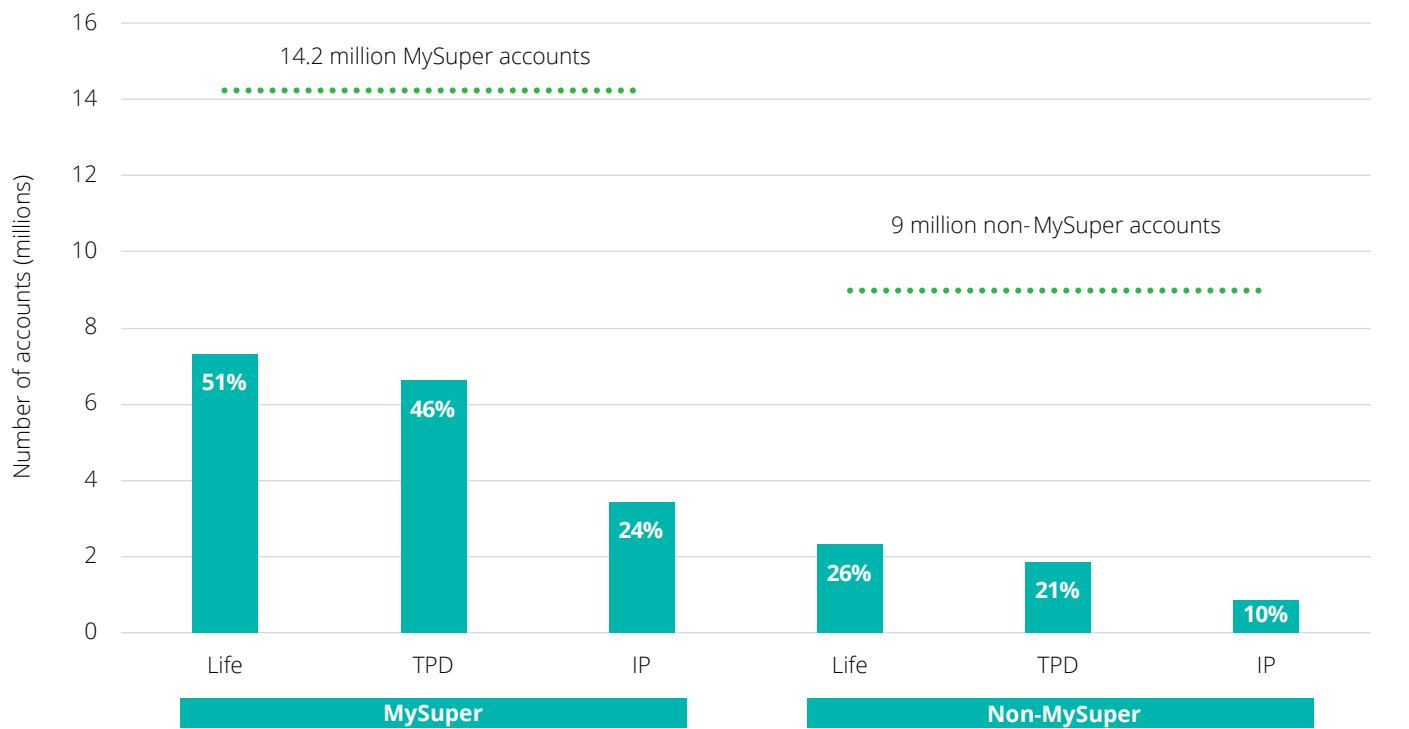
Chart shows the proportion of total sum insured and total lives insured in insurance in super relative to other insurance types.

Source: APRA (2021).

ⁱ Sum insured refers to the value of money that is payable to an individual in the event of a claim.

The most commonly held policy is life insurance, followed by TPD, whilst IP insurance is held by fewer 24% of MySuper and 10% of non-MySuper accounts (see Chart 2.2). The share of accounts with insurance declined in 2019, corresponding with the introduction of PYS legislation affecting MySuper products (see Section 2.1.2). Prior to this, the proportion of MySuper accounts with insurance was consistently around 75 percent (between 2014 and 2019).³

Chart 2.2: Superannuation accounts with insurance by type – June 2021



Note: Total number of APRA regulated (MySuper accounts) provided by data. No-MySuper accounts determined by the residual of total accounts less MySuper accounts.

Source: APRA (2021), Productivity Commission (2018).



2.1.1.2 Types of cover

Broadly speaking, the objective of superannuation is to provide an income source in retirement.⁴ It follows that types of insurance should form part of superannuation accounts (to the extent certain insurance products can assist in achieving the superannuation systems' overarching objective). The types of policies that can be included in a superannuation are described in Table 2.1.

Table 2.1: Types of insurance and their objectives within superannuation

Type	Compulsory	Features	Objective
Life insurance	✓	Life cover (also known as term life insurance or death cover) pays a lump sum amount of money when the insured person dies.	Insurance payout partially replaces a deceased member's lifetime earnings to minimise disruption to the family and dependents.
Total and permanent disability (TPD) insurance	✓	TPD cover pays a lump sum amount to cover the costs of home modifications, debt repayments and the future cost of living if the insured person is permanently disabled and unable to return to work.	Insurance contributes to retirement income, as it insures against the risk that a member's accumulation phase is cut short.
Income protection (IP) insurance	—	IP is paid in instalments and replaces the income lost through an inability to work due to injury or sickness. IP payments will stop when the beneficiary is capable of returning to work, or at the end of the benefit period.	IP payments may include a superannuation contribution in lieu of the individual's contribution, or if relevant, the insurer may fund programs to assist the worker re-enter the workforce (for example, through facilitative occupational rehabilitation programs).

Source: Deloitte Access Economics (2021), Productivity Commission (2018).

In general, the purpose of offering these particular insurance products within superannuation is to cover the 'future service' period between an event, such as disablement or death, and retirement age. The cover helps put the member (or beneficiaries) in a financial position closer to where they would have been in retirement, but for the occurrence of the insured event. Indeed, the Cooper Review (2010) found that life and TPD insurance strongly support the principles of the superannuation system.⁵

Recognising the alignment between these products and superannuation, trustees must offer life and TPD cover on an opt-out basis to superannuation members.⁶ This means that unless a member chooses to opt-out, all superannuation members are covered in the event of death and total permanent disability. IP insurance is also offered by some superannuation funds, although this is not a legislative requirement. The examples below demonstrate how insurance through superannuation provides benefits to claimants.

Box 2: Insurance in superannuation cameos

Cameo 1

Consider a family with two children aged under 5. One parent works full-time and earns \$70,000 per year, while the other works part-time and earns \$40,000.

If the primary income earner were to suffer a serious permanent injury at age 35 the family could experience a fall in living standards of almost 29% a year on average over their remaining working life – and rely heavily on government welfare.

TPD cover of \$250,000 through super (premium paid of approximately \$3 per week) would increase family living standards by \$6,316 per year on average until retirement – meaning they would be 16% higher than they would have been without insurance. Insurance through superannuation also reduces reliance on government – net spending (total spending on welfare less all taxes) over the period would be \$1,212 per claimant per year lower on average.

In addition to improving living standards through supporting lost income, TPD insurance can improve quality of life through other ways, such as access to rehabilitation or home modifications.

Cameo 2

A family where one partner earns \$35,000 and the other earns \$20,000, also with two children aged 4 and 2 would receive a greater increase in living standards.

If the primary income earner of this family were to die unexpectedly at age 35 the family could experience a fall in living standards of almost 17% on average over their remaining working life of the living partner.

Life insurance cover of \$250,000 through super (premium paid of approximately \$3 per week) would increase family living standards by \$4,779 per year on average until retirement – meaning they would be 20% higher than they would have been without insurance. At the same time net government spending over the same period would be \$244 per year lower on average.



Box 3: Super Fund Case Study

John (not his real name) was a member of an employer sponsored super fund, having joined as a fit 39-year-old in 2008.

He received default insurance cover provided under his employer plan including death, TPD and IP benefits (2-year benefit) and for 10 years, life was good! And then suddenly it wasn't.

In 2018 at the age of 49, he was diagnosed with Acute Myeloid Leukaemia. He had a partner and three children – all of whom relied on him as the sole breadwinner for the family. He went from earning a high salary as a Fly-in Fly-out (FIFO) worker and suddenly his income ceased.

Fortunately, his employer had a good chaplaincy program, and the superannuation fund was advised quickly about his illness and the fact he would be away for several months as he undertook chemo and other therapies.

As part of the claim process the superannuation fund provided assistance with completing the necessary paperwork. During this process, the insurance provider discovered that he had also been seriously ill for an extended period 18 months previously but had never submitted a claim (more on that later).

While John understood that he had the various insurances in his super plan, he didn't think he could make a claim on his IP policy for the first illness because he had savings. When he got sick 18 months later, the cupboard was bare and having used all of his leave accruals he decided to make an IP claim. During meetings with John it became clear that whilst his family provided care and support during his illness and treatment they didn't have the practical knowledge or understanding about insurance and making a claim.

His IP claim was approved quickly and benefits commenced as soon as the 90-day waiting period was completed. He continued to receive benefits for his "new" illness until just before the 2-year benefit period expired and successfully returned to work in early 2020.

In respect of his earlier illness, the fund also submitted a retrospective claim for the 2017 illness and resulted in John receiving IP benefits for the original illness as a lump sum. This enabled John to replace the savings he'd exhausted during his original illness and while not restoring him to the same financial position, meant he wasn't at ground zero and could start to rebuild his family's wealth.

When John was advised that both of his claims were approved, his relief was visible – a huge weight had been lifted and knowing his family would get a regular income meant he could focus on getting better rather than wondering and worrying how they were going to pay bills.

Source: ASFA member

2.1.2 The evolution of insurance in superannuation in policy

Insurance and retirement savings have historically gone hand in hand.⁷ Before superannuation was compulsory, public sector and corporate funds would typically offer employees life and TPD cover as well as retirement benefits. The connection between insurance and superannuation began in the 1950s with life insurance companies beginning to offer superannuation products (primarily to the public sector and to male professionals in large companies). Insurers saw a need for insurance arrangements to bridge the gap between working income and retirement income for those who were injured. Eventually the importance of these insurance products was recognised by government with the introduction of tax advantages like those which continue to be offered within the super system today.

In 1992, compulsory superannuation was introduced. Insurance continued to be provided in most default products, providing it did not inappropriately erode balances under the Superannuation Industry (supervision) Act 1993 (SIS Act). Legislative requirements to offer insurance were introduced in the 2005 Choice of Fund reforms. It specified that default funds must provide a minimal level of life insurance cover (but not TPD or IP insurance). Funds did not necessarily have to give members the choice to opt out. In 2013, in response to the findings from the 2010 Cooper Review, it became mandatory for funds to provide life and TPD insurance, on an opt-out basis, in all MySuper products.

That mandate reflects similar policy goals to those of the broader super system. It recognises that individual members are not well placed to assess complex financial risks over time, and that short-sighted decision making can leave workers in a punishing position without a minimum level of cover.

Since 2019, there have been two major policy changes aimed at addressing some of the concerns raised by the Productivity Commission's report *Efficiency in Superannuation* (some of these concerns are discussed in Section 2.1.3). These changes included:

- Protecting Your Super (PYS) – As of July 2019, accounts that have not received a contribution in 16 months must have their insurance cover cancelled unless the member makes a written election to maintain cover.⁸
- Putting Members Interest First (PMIF) – From April 2020, insurance must be opt-in for accounts with balances less than \$6000 or if member's age is less than 25.⁹

Both PYS and PMIF were introduced in response to concerns outlined in the Productivity Commissions review of the superannuation sector in 2019.

2.1.3 Costs and criticisms of insurance in superannuation

Despite the many benefits, insurance in superannuation does not come without its costs. The Productivity Commission identified these issues in their review of the broader superannuation system and, for completeness, they are discussed briefly below. .

2.1.3.1 Premiums are deducted from superannuation balances

The most tangible cost of super is the cost of the premiums. Premiums are deducted from the superannuation balance, meaning that an individual's retirement income is less than it otherwise would be. Balance erosion can materially affect retirement incomes, with premiums for some accounts over \$2,000 per annum. Productivity Commission research estimates that the average workers retirement balance could be reduced by \$35,000, or 4%, due to premiums paid for insurance.¹⁰ This was particularly an issue for members with multiple superannuation accounts (approximately 4 million Australians had more than one account in 2020¹¹), although this issue has been significantly addressed by the PYS reforms that ceases insurance cover when an account becomes inactive.

Balance erosion does not affect all Australians equally. The erosion of superannuation balances adversely affects lower income earners, or workers with an interrupted work history. As default premiums do not generally vary with income, they represent a larger share of superannuation balances for lower income earners. However, those with lower superannuation balances have greater access to the age pension to support their income in retirement, meaning reductions in superannuation balances are less damaging to this group's retirement income.

2.1.3.2 Some policies are ill-suited to individual members' needs

Separate to reduction in superannuation balances resulting from premiums, the value of group insurance can be limited as the policies are not tailored to meet the members' needs. Given the way group insurance works – assuming a constant risk of an adverse event across an entire group – it follows that not all members will receive the appropriate cover. A number of members will be over-insured – that is, they will receive an insurance policy disproportionate to their individual insurance need, while other members will be under insured – that is, their policy will not fully account for their insurance need in the event of an adverse event occurring.

2.2 Performance of the sector

Insurance in super is not intended to be a singular solution to insurance need. Indeed many Australians choose to upgrade their insurance through superannuation or to engage with other insurance channels outside of their superannuation for life, TPD and IP (see Chart 2.1). The role of insurance in superannuation is not to replace these other channels, rather, to provide a safety net level of insurance to those who might not otherwise have it. In doing so, insurance in superannuation forms an important component of the broader insurance ecosystem and helps achieve the superannuation system's objectives. This Section of the report

evaluates the performance of insurance in super by comparing basic outcomes of the sector against these other channels. The objectives, and therefore outcomes, of different channels may vary and the purpose of this section is not to critique other insurance channels, rather to highlight some of the efficiencies gained through insurance in superannuation.

In 2021, 45,000 individual claims were admitted through a default superannuation insurance policy (see Table 2.2 for breakdown by insurance type). This equates to 0.3% of all employed persons in Australia. Over the 2021 financial year, the value of claims paid (admitted in current and previous years) to superannuation members across life, TPD and IP insurance totalled \$6.6 billion.¹²

Table 2.2: Claims made through group super – 2021

Type	Claims paid (admitted this year)	Claims paid (admitted in previous years)	Average sum insured (admitted this year)
Life insurance	10,135	619	\$137,000
TPD insurance	16,052	2,097	\$136,000
IP insurance	19,394	31,501	\$4,000^
Total	45,581	34,217	-

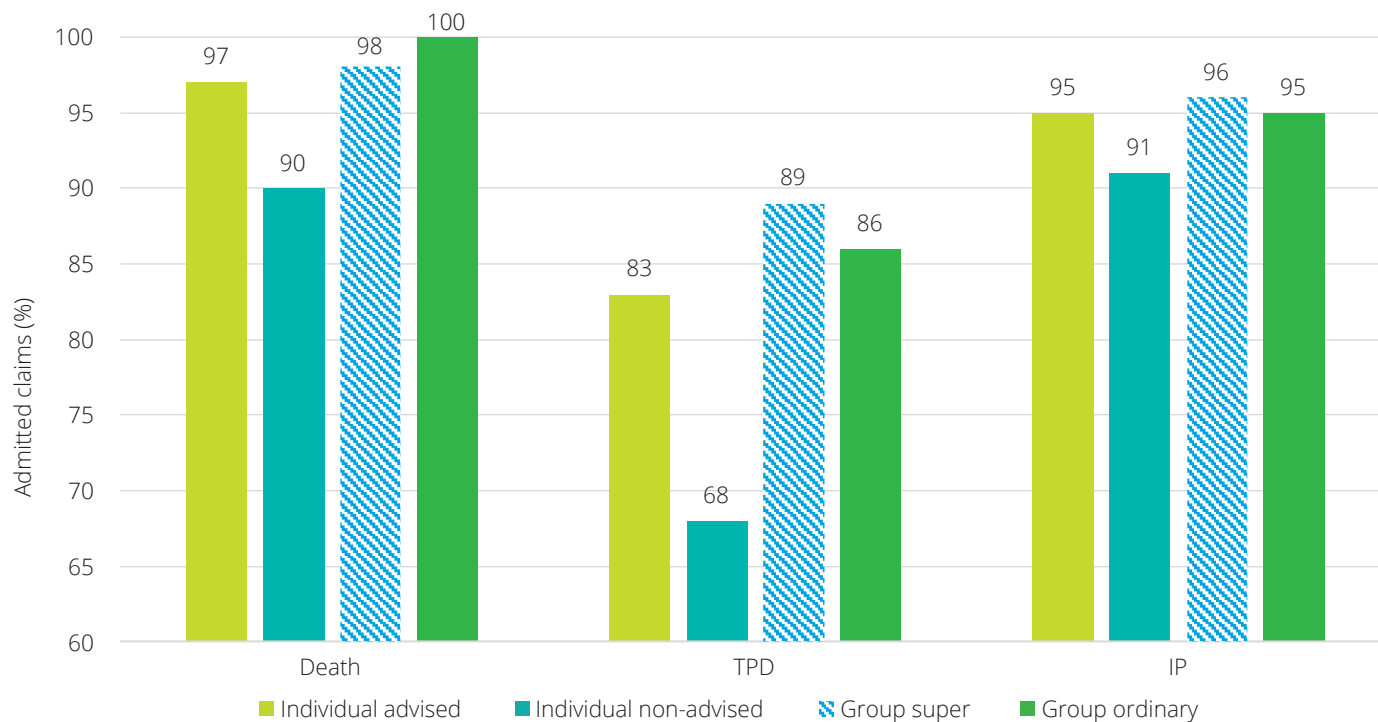
Note: IP insurance benefits expressed as monthly benefit. Admission share (Chart 2.3) is calculated off 'finalised claims' which are not shown in this table. Data for claims admitted this year is from the latest ASFA release (December 2021) whilst claims admitted previous year is from annual release (June 2021).

Source: APRA (2021)



The share of successful claimants is generally higher in insurance in super (labelled “Group super” in the following charts) than other types of insurance. Chart 2.3 shows the share of claims admitted by the four broad categories of insurance by type, indicating that group super has the highest admittance ratio in TPD and IP, and second highest in life insurance in 2021.

Chart 2.3: Admitted claims share by insurance type – December 2021

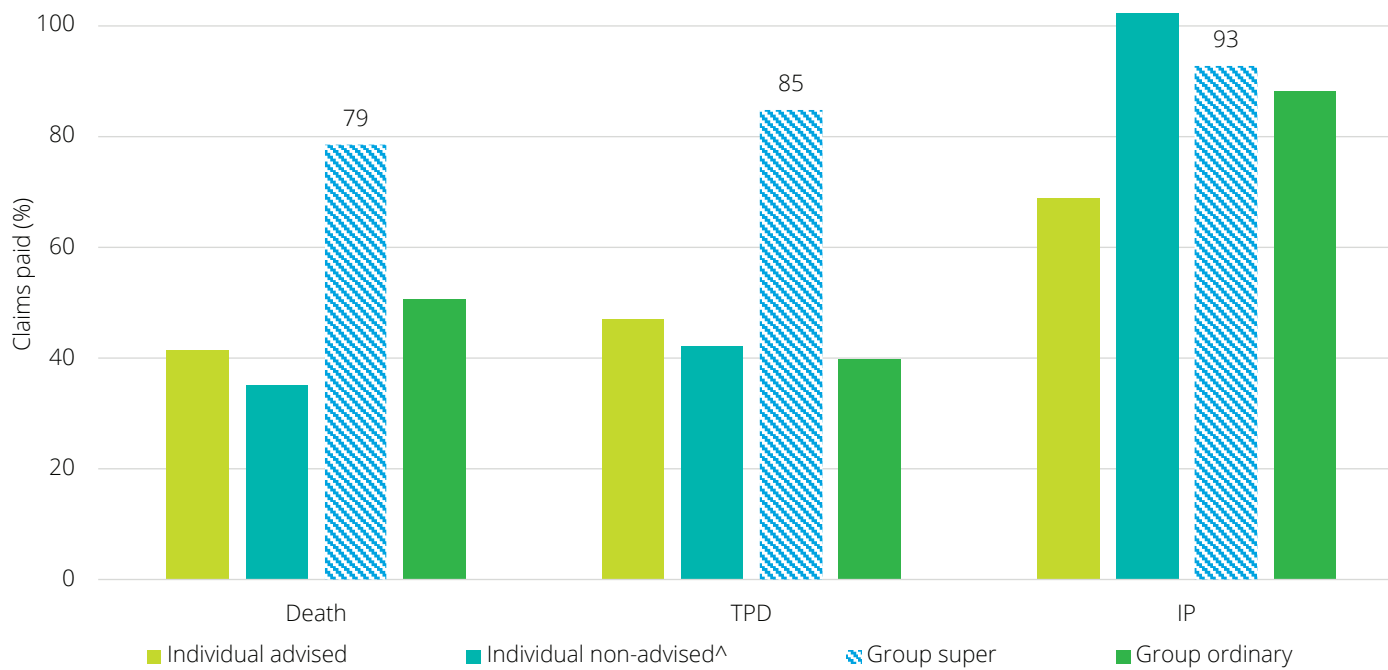


Note: ‘Individual’ super refers to policies independently acquired outside superannuation either with or without advice (for example, a financial advisor) and also includes superannuation insurance if member selects the level of cover. ‘Group super’ refers to default insurance provided through superannuation and ‘group ordinary’ refers to other types of group insurance such as employee insurance.

Source: APRA (2021).

Not only does group insurance have moderately higher acceptance rates, the proportion of premiums paid out in claims is higher in group super insurance than any other insurance category for life and TPD insurance. The overall payout ratio, also known as the loss ratio (the proportion of premiums returned to members through claims) across insurance types is at least 79 percent (see Chart 2.4). Only individual, non-advised IP insurance surpasses the average payout ratio for group super insurance. These differences by insurance type do not suggest that other insurance types are reaping super profits, rather reflects differences in cost structures and the efficiency with which insurance in super can be delivered.

Chart 2.4: Payout ratio by insurance type – 4-year average



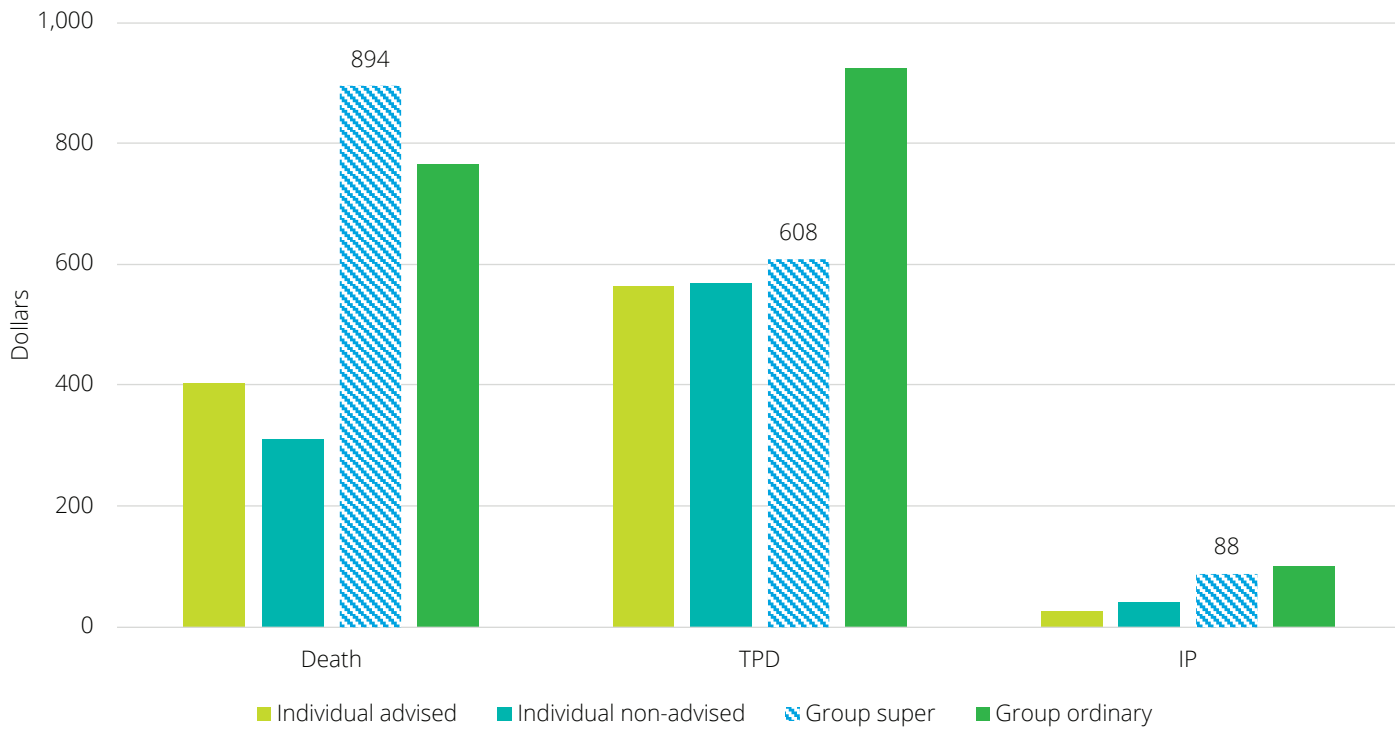
Note: ‘Individual’ super refers to policies independently acquired outside superannuation either with or without advice (for example, a financial advisor) and also includes superannuation insurance if member selects the level of cover. ‘Group super’ refers to default insurance provided through superannuation and ‘group ordinary’ refers to other types of group insurance such as employee insurance.

Source: APRA (2021).

One of the benefits to a wide pool of members is that insurance in superannuation can be provided at lower costs. While both individual and group insurance are able to effectively pool risk and access the benefits of reinsurance arrangements there are cost advantages to group insurance through super. Research conducted by ASFA showed that insurance in super was between 30-60 per cent cheaper than equivalent individual cover.¹³ The cost effectiveness of insurance in superannuation can also be demonstrated by the ratio of premiums to sum insured. Chart 2.5 shows that, for all insurance types, group insurance is able to offer higher coverage (on average) for each dollar collected through premiums than individually acquired policies. Although this does not guarantee appropriateness of cover for individual fund members, it highlights one of the efficiencies of group insurance.

Individual and advised insurance products have a different cost base and serve a different, tailored role for individuals in the insurance ecosystem. The comparisons shown here simply demonstrate the outcomes of having a low-cost safety net component of the system overall.

Chart 2.5: Insurance cover per premium dollars paid



Note: IP values converted to annual payments by multiplying monthly benefits by 12 before dividing by annual premium.

‘Individual’ super refers to policies independently acquired outside superannuation either with or without advice (for example, a financial advisor) and also includes superannuation insurance if member selects the level of cover. ‘Group super’ refers to default insurance provided through superannuation and ‘group ordinary’ refers to other types of group insurance such as employee insurance.

Source: APRA (2021).



2.3 Appraising the merits of insurance in super

The performance metrics discussed above highlight some of the efficiencies of insurance within the superannuation framework, although the benefits of the system extend beyond the level of coverage and payouts. Insurance in superannuation further improves outcomes by increasing access to cover, reducing costs for individuals and reducing costs for government.

2.3.1.1 Greater access to cover

Individuals tend to be more risk averse when faced with a financial loss relative to an equivalent financial gain (loss aversion)¹⁴ and as a result, individuals and society generally benefit from increased certainty provided by insurance. Although this is well understood, humans also have difficulty making provisions for adverse and unlikely events (optimism bias) that leads to underinsurance in private markets.

Insurance through superannuation provides cover for people who would not otherwise have had cover. As almost every Australian has a superannuation account, the default opt-out arrangements provide greater coverage across Australians. There is evidence to suggest that the number of Australians covered by some level of insurance would be significantly lower under an opt-in system. Analysis conducted for this report using insurer data showed that regulatory changes under PYS and PMIF resulted in an opt-in rate of between 10-28% depending on the age of members. Although these changes may not be reflective of true opt-in rates, the reduction in the insurance pool is likely to lead to significantly lower coverage, higher costs to the individual (discussed below in Section 2.3.1.2) and higher costs to government (see Section 2.3.1.3).

Higher rates of coverage of insurance assists in addressing reported problems of underinsurance across Australia. In 2020, RiceWarner estimated the cost to government of underinsurance to be more than \$600 million for life and TPD (see Section 2.3.1.3) - figures which would be much larger in the absence of insurance held through superannuation accounts.¹⁵

Default group insurance provides access for people in high-risk populations that may not otherwise be able to access insurance (such as people with pre-existing medical conditions, or people who work in high-risk occupations). Group policies can charge lower premium costs by pooling risk over a larger population, particularly under the existing opt out arrangements. This means that an individual with higher risk factors can access insurance at a substantially cheaper rate than under an individually underwritten policy and will not be excluded due to high risk of payout.

2.3.1.2 Lower cost to individuals

Insurance in super provides cover to the large groups efficiently at a low cost and represents a different market segment to individually underwritten policy. This is possible due to the aggregation of individuals into a common pool which serves to lower the impact of adverse selection (the risk that only those who are more likely to use the insurance purchase a policy). If insurance is only paid by those more likely to use it, then the costs must necessarily be higher for each individual as a greater proportion of people are expected to experience an adverse event. As discussed in 2.3.1.1, this also benefits those individuals that are in higher risk categories and may otherwise face higher costs associated with insurance coverage, since group insurance distributes their increased risk across a broader customer base.

Group insurance also has lower costs of distribution as a result of the current opt-out arrangements. The wider member base creates economies of scale that reduces the per member contribution towards group costs including administration and underwriting expenses.¹⁶ Similarly, the Productivity Commission analysis of insurance in superannuation showed that funds undertake a regular and competitive tender process¹⁷, consistent with low insurance costs for members as a result of their funds buyer power. Individuals therefore also experience lower search and advice costs since their superannuation fund selects their insurer, a decision that is subject to a 'best-interest' obligation.

Finally, there are benefits associated with paying premiums through superannuation contributions rather than on take-home income as in individual, retail policies. Firstly, premiums paid for insurance in superannuation can be tax efficient relative to individual retail policies since pre-tax contributions are taxed at only 15%, compared to an individual's marginal tax rate which is often greater.¹⁸ In addition, superannuation contributions represent money that could not otherwise be used by the consumer until retirement age, and therefore does not impact the day-to-day household budget. This means that consumers are not forced to choose between insurance cover and other immediate essentials such as housing, groceries and utilities.

2.3.1.3 Government costs

Whilst insurance in superannuation is taxed at concessional rates and therefore represents a cost to government, growing insurance coverage reduces the government's welfare and disability support liability. If instead of social security benefits, insurance is able to support workers who are no longer able to earn a wage, this relieves the pressure on social security systems. Even with insurance in superannuation, under-insurance across death and TPD is estimated to cost the Australian Government more than \$600 million per annum in additional social security.¹⁹

3 Strengthening the system through better use of data to better target benefits

Key points

Inclusion of additional member characteristics could improve the value for money of policies.

With better access to and use of member data, such as age, income and dependents could see better coverage of around \$1.2 trillion dollars, equivalent to 34% of total sum insured across life, TPD and IP.

For example, reallocating life insurance based on age, marital status and dependents could result in changes to insurance cover and premiums. An older, married member with children could receive 20% extra coverage (i.e. taking a payout value from \$140,000 to \$170,000). By contrast, a younger married member with no children could reduce their cover by 22% (i.e. reducing annual premium costs from \$166 to \$130). For example, a with additional \$30,000 (20% increase on current) in the event of their death whereas Member 2 benefits from paying approximately \$36 less in premiums per year (22% reduction on current premium).

Collecting the data required to better match insurance coverage to need requires and cooperation between government, trustees, insurers and members. Although not all additional data would require policy change, for instance Super Stream Data and Payment Standards already provide for occupation fields to be provided – in practice the ATO has not yet activated these fields. It also requires insurers to design better policies while maintaining the benefits of group-rated insurance.

Whilst default insurance can generate benefits in aggregate terms (see Section 2.3), the current approach to assigning insurance cover is broad. Individuals are assigned to groups based on few characteristics (usually age, gender and, much less often, occupation type) which for many Australians will be a general basis to determine their level of insurance need. Whilst the purpose of default group insurance has never been to fully meet a member's insurance needs, this particular issue was identified by the Productivity Commission as a source of suboptimal outcomes for a large share of members (Section 2.1.3.2).

This chapter explores the potential to create improvements to group insurance by using richer data to better define default groups. With small changes to default characteristics, insurance cover will better meet the needs of the individual and reduce instances of under- (and potentially over-) insurance (see Box 4). Just as reallocation could occur between members as a result of better data, reallocation could also occur across types of cover for a given member. This report has not considered this approach for modelling purposes, although it is considered below in Section 3.2.1. Section 3.3 considers the challenges and need for policy design in order to realise these objectives.

“Poor tailoring of insurance can result in insurance that is of low value or causes excessive balance erosion for some cohorts of members. Funds need to use the information that they collect from members to develop insurance cover that limits these undesirable outcomes and best meets member needs.”²⁰



Box 4: the concepts of under and over insurance in this report

This chapter refers to the concepts of under- and over-insurance. For the purposes of this report, these concepts do not relate to individual risk levels (Deloitte Access Economics has not undertaken an assessment of risk profiles), instead it refers to the amount of insurance that would be required in the event of a payout, based on an individual's characteristics.

Consider two persons (Person A and B) who are the same age, income and occupation, however Person A is single and has no dependents whereas Person B is married with two children. The risk levels of these individuals are the same – one is no more likely to die or experience permanent disability than the other – although their needs for insurance are different. If both these individuals are under the same insurance contract, one of them must be either over or under-insured. Either Person A is paying for additional insurance cover they do not need, or Person B is not sufficiently insured for the additional needs of their dependents in the event that they need to make a claim.

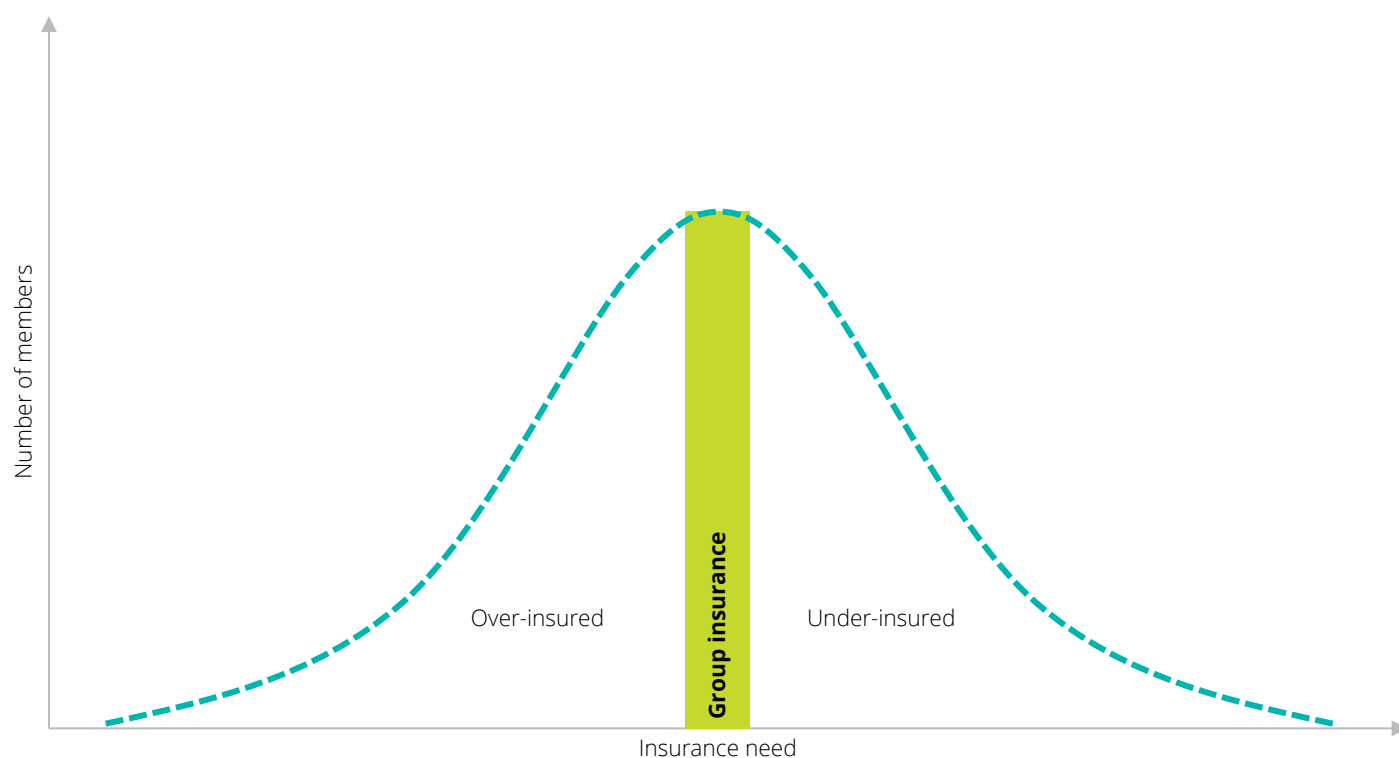
3.1 Better data access for group insurance

Default insurance is in place to provide a basic level of cover for those that might otherwise not have it. If necessary, individuals can engage with their superannuation provider to adjust their individual cover, however, the reality is that few members take action to tailor their insurance cover to better suit their need. In 2020, ASIC research estimated that 86 per cent of superannuation members have default insurance settings.²¹ This section explores how marginal changes to group insurance could improve outcomes for members.

3.1.1 Inefficiencies in current default insurance cover

Whilst group insurance provides a cost-effective way of providing basic cover, default cover only matches the “average” consumer. In aggregate terms, this can be represented by a mismatch between default insurance cover and insurance need. This is illustrated in Figure 3.1 where a subgroup of the broader population is selected into a single default group with an approximately normal distribution of insurance need. Although the average member within a cohort is suitably insured, those with less/more need than the average member are over/under-insured. This is a stylised point – in reality, as discussed in Chapter 2, currently, group insurance provides below the average level of insurance needed.

Figure 3.1: Simple representation of insurance need distribution and insurance – group insurance



Source: Deloitte Access Economics.

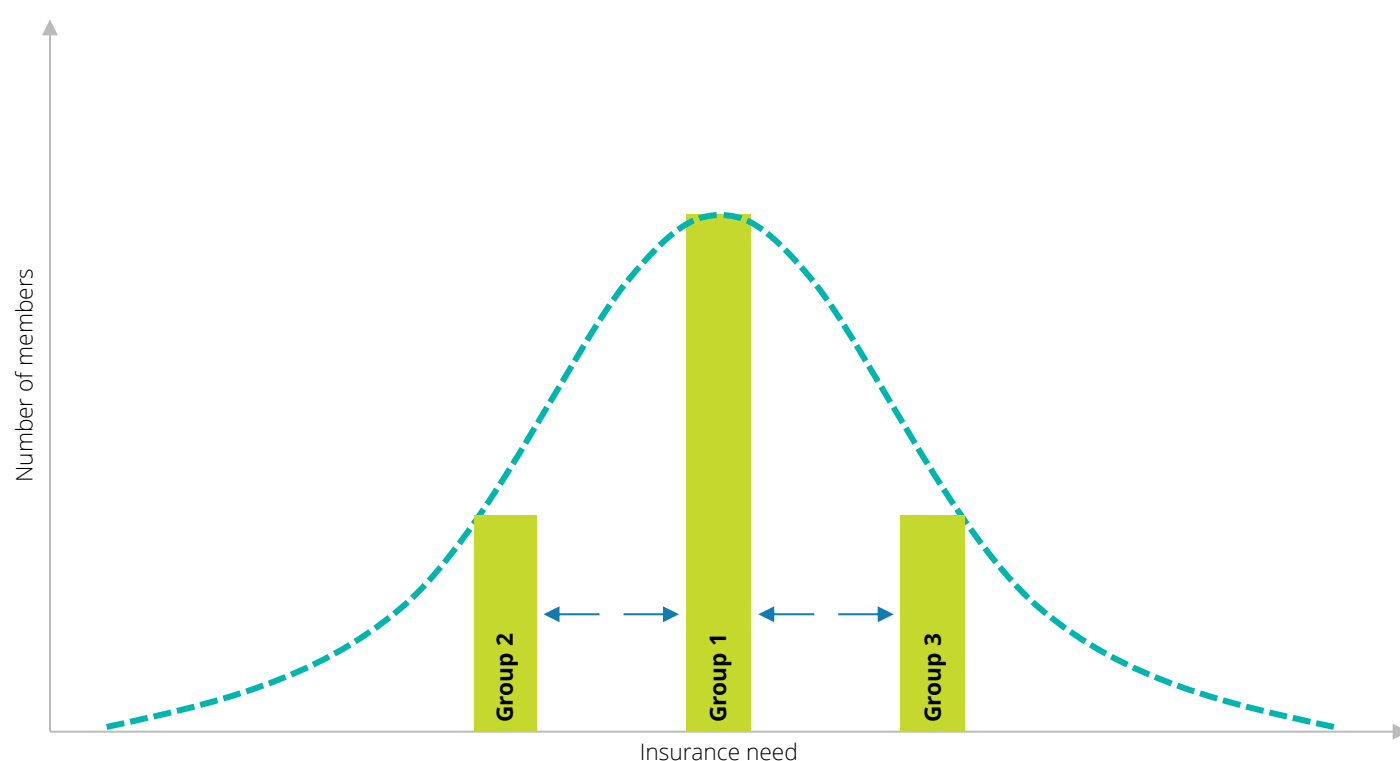
Although it differs between funds, insurers and policies, the typical characteristics of grouping cohorts together in group insurance is age, gender and, less commonly, occupation. Whilst these characteristics, particularly age and occupation, might represent risk levels, they do not necessarily reflect factors that influence need for insurance. These factors are more likely to include characteristics such as marital status, number of dependents, homeownership and income.

3.1.2 What does better access to data in insurance look like?

There is a trade-off to tailoring insurance to better fit the individual circumstances. Partly, the reason group insurance can be offered at low cost is by pooling risk from a larger population and by minimising administration (see Section 2.3.1.2). If the dial shifts too far the other way, the system will reflect individual, retail insurance which might mean better targeted cover but also cover that is more costly to insure and administer. Another appeal of group insurance is that it is 'low touch' and requiring more onerous data collection processes are likely to reduce overall participation as individuals become discouraged and disengaged by the process.

Better data access can help balance costs and efficiencies of group insurance. By targeting a small number of characteristics that have a significant influence over an individual's insurance need, improvements could be made without onerous data collection. Figure 3.2 illustrates this concept whereby the previous group is subdivided to better meet the needs of members in the tails of the distribution.

Figure 3.2: Simple representation of insurance need distribution and insurance – better data access



Source: Deloitte Access Economics.

As noted above, the current system of insurance relies mostly on the age of individual members to determine insurance need. Whilst age is associated with key life stages that influence need, there is great disparity between age cohorts depending on other factors, such as income levels, debt and children. In the case of life, TPD and IP insurance, the factors most associated with need are:

- income – determines the amount of insurance needed to offset the financial losses associated with death, permanent disability or loss of income and impacts capacity to pay premiums
- number of dependents – determines the number of people reliant on insurance to substitute or supplement income in the event of death, permanent disability or loss of income .
- debt – determines the amount of insurance needed to pay down existing debt in the event of death, permanent disability or loss of income.

The report explores the benefits associated with incorporating the first two of these factors (debt is excluded due to data availability) into group insurance in the following Section.

3.2 Estimating the benefits of access to data

This section of the report estimates the benefits of moving towards a system of better use of data. In particular, the report estimates the benefits associated with including the following characteristics in the determination of default insurance cover.

- Age
- Income
- Marital/de facto status
- Number and age of children.

Other characteristics, such as debt levels would ideally be included in this analysis, however the report has excluded these from the modelling due to unavailability in actuarial estimates. Occupation is another characteristic sometimes used in the design of policies. It is usually included as part of risk analysis more so than coverage levels so it is not included in the analysis in this chapter, but it could be part of better policy design in the future.

The modelling approach uses group-level data provided by a sample of insurers to model the current distribution of insurance across age cohorts.ⁱⁱ The analysis then compares the current allocation of default cover against a new distribution based on insurance need obtained from actuarial modelling previously conducted by RiceWarner (now part of Deloitte). The RiceWarner modelling determines the level of individual insurance need across the Australian working age population using detailed cameos based on the 2016 Australian census data. The analysis assumes that the level of insurance (sum insured) in the system is static across scenarios; better data access does not increase or decrease the total level of sum insured, only reallocates proportionally in accordance with need.

Box 5: A note on interpreting results

The results presented in this section are measured in terms of the total amount of sum insured that is reallocated between members under the proposed system. Sum insured refers to the total amount payable to members in the event of a claim, and since the benefits of sum insured are only realised (in a financial sense) by those who need to make a claim, the monetary values presented below should not be compared to metrics such as GDP.

Instead, the results of this section seek to demonstrate that significant efficiencies could be realised through small changes to the operation of group insurance. This would alleviate some of the concerns with the current system whilst preserving the broader safety net provided by insurance in superannuation.

The exercise presented is based simply on reallocating the current total sum insured within each of the three insurance types. It does not presuppose the current level of insurance is optimal (in fact, it may be less than optimal). Nor does it propose any shift of total coverage *between* the three streams of insurance, which could be another improvement opportunity.

A discussion of the limitations and challenges of this approach are discussed further in Appendix B.

3.2.1 Total reallocation of sum insured

Using this approach, the reallocation of insurance in accordance with need has a significant impact on the distribution of sum insured. Across the three types of insurance, this report finds that the inclusion of income and dependents would reallocate approximately 1.2 trillion (34%) of total sum insured (see Table 3.1). This reallocation occurs both within and between age cohorts.

The largest reallocation (in both nominal and percentage terms) occurs in life insurance. This report estimates that 800 billion (42% of sum insured) would be reallocated across cohorts and members. In percentage terms, the change in life insurance is almost twice as large as the reallocation that occurs in TPD (23%) and IP (29%) insurance. This is unsurprising since life insurance has little or no benefit to an individual with no dependents, whilst TPD and IP are valuable to the affected claimants (discussed further below under Chart 3.1).

Table 3.1: Reallocation under smarter insurance, by insurance type

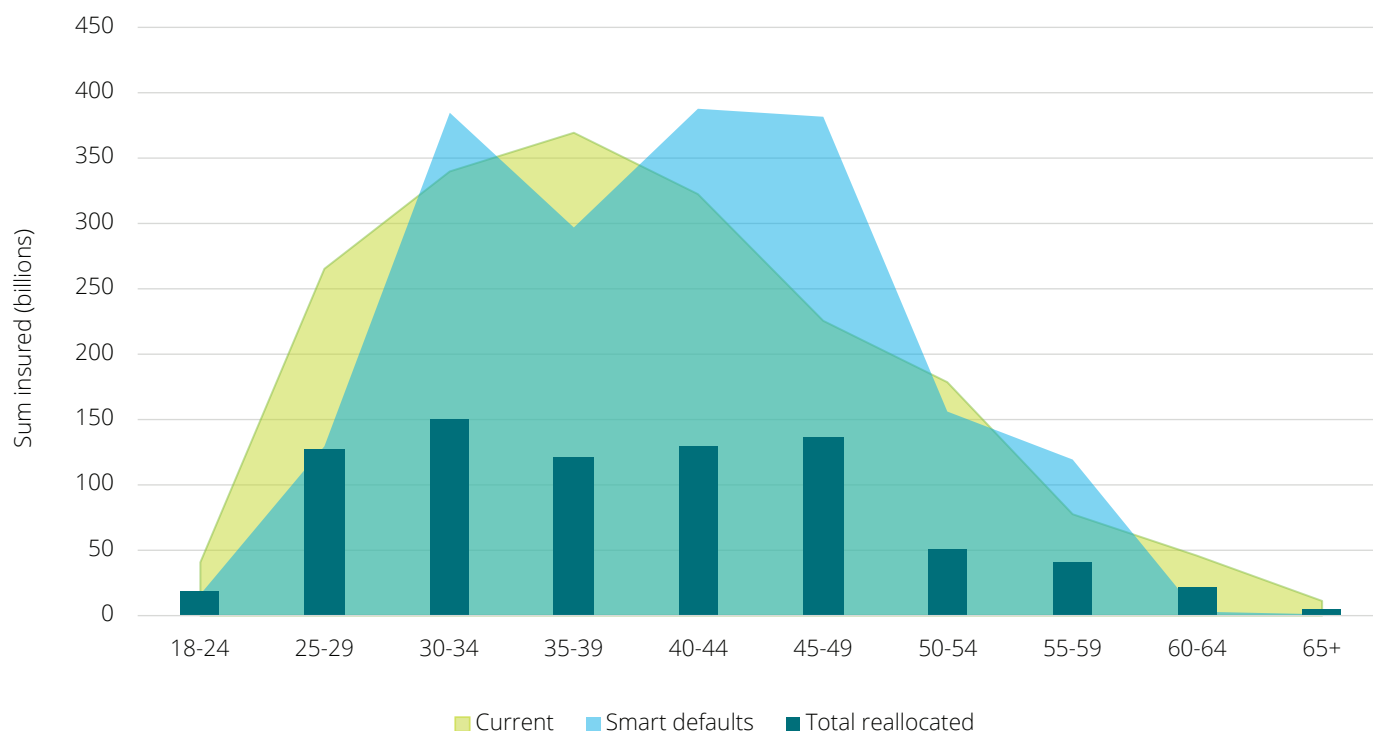
Cover	Reallocation (\$bn)	Reallocation	Sector reallocation
Life	800	42%	34%
TPD	333	23%	
IP	61	29%	

Source: Deloitte Access Economics, RiceWarner, APRA.

ⁱⁱ Group level insurer data is scaled to market totals found in aggregate APRA statistics.

The reallocation of life insurance sum insured by age cohorts is presented Chart 3.1. The green shaded area shows the current distribution of sum insured based on data obtained from insurers for 2020 financial year whereas the blue shaded area represents the new distribution with income and spouse dependents considered. The columns show the absolute value of the total reallocation under better data access for that age cohort (similar charts for TPD and IP included in Appendix B). For example, in aggregate terms, the 30-34 age cohort only has a \$44 billion increase in total sum insured, although movement within this cohort results in the highest total reallocation (\$149 billion).

Chart 3.1: Redistribution of sum insured under smarter defaults by age cohort – Life insurance



Note: Additional cohorts considered include marital/de facto status, income and number and age of dependents.

Similar charts showing the distribution of TPD and IP are included in Appendix B. Drop in the 35-40 category as a result of disparity between estimated default amount and estimated need per actuarial modelling.

Source: Deloitte Access Economics, RiceWarner, APRA.

For life insurance, the younger age cohorts (where fewer cameos have high income and dependents) benefit least, if at all, from life insurance and therefore have the largest decline in sum insured under better data access. For the 18-24 and 25-29 age groups, sum insured is almost halved (45 and 48 percent reduction) compared to current insurance. On the other hand, the analysis finds that the age groups that are most underinsured in the current settings are those members between the ages of 40-49, consistent with expectations about numbers of dependent children within this age cohort. Box 6 describes how this change to better data access impacts individual members.

Box 6: better data access default cameos – Life insurance

Consider the below cameos:

- Member 1 is married and in their mid-50s with two dependent children
- Member 2 is in their early 30s with a partner and no children

Reallocation under better data access provides Member 1 with additional \$30,000 (20% increase on current) in the event of their death whereas Member 2 benefits from paying approximately \$36 less in premiums per year (22% reduction on current premium).ⁱⁱⁱ

There are a number of ways that this reallocation could manifest within the current system. For new members, they could simply be offered the new default levels of cover. Changing coverage levels for existing members would require a transition process. For some members it will decrease their coverage levels and lower premiums. These could be adjusted automatically or members could be given the option to change coverage levels. For some members there will be the opportunity to increase coverage levels for certain products. This could be implemented in various ways, such as a shift in coverage levels between products, or members could be given the option to change coverage levels.

3.3 Implementation challenges

Moving towards a system with better data access and use is not straight forward. Collecting the data required to better match insurance coverage to need requires careful policy design and cooperation between government, trustees, insurers and members. Some information would be easier to obtain than others. For example, individual income could be reasonably approximated through a person's employer contributions to superannuation without additional data gathering. On the other hand, information such as number of children, marital status and debt levels would be difficult to acquire without requesting data directly from individuals. Although this data is available in theory – the ATO, for example, currently holds information on occupation, marital status, partners and relatives, income, debt and assets as part of taxpayer records – insurers will not be

able to access this information without carefully considered and significant amendments to the Privacy Act 1988 and the Australian Government Agencies Privacy Code 2017.

Another potential solution is that trustees need to regularly obtain the required information from members in order to keep insurance coverage aligned with insurance need. This could involve amendments to the Superannuation standard choice form submitted by employees to elicit more information regarding individual characteristics and requirements. However, recent changes to the system, for example, the 'stapled super fund'^{iv} rules under Your Future, Your Super (YFYS) might in fact reduce the overall contact with members. Whilst a relatively simple solution, this would likely only benefit employees who regularly change employers whilst members who do not change jobs will have insurance need determined by potentially outdated information.

These implementation challenges should not discourage insurers, trustees and policy makers exploring further opportunities to develop the data capabilities of default insurance in superannuation. As demonstrated, improvements in the collection of information can provide material benefits to members through better aligning insurance with need. Such a system could address issues relating to the appropriateness of default cover and avoid removing or undermining a system that provides an important safety net to a significant number of Australians who may not otherwise hold an insurance policy.

ⁱⁱⁱ Premium savings determined using the ratio of premiums per dollar of sum insured by member cohort across the sample of insurers.

^{iv} Since November 2021, employers are required to check with the ATO if their employee has an existing superannuation account ('stapled fund') to pay their superannuation into.

4 Strengthening the system through a greater focus on wellness and return to work

Key points

There are barriers preventing insurance in super from improving wellness and return to work outcomes for members.

Greater access to treatment and services is likely to improve return to work outcomes among members who suffer from injury or illness.

Our analysis finds 11% of IP insurance claimants who access rehabilitation treatment and services are likely to return to work where they otherwise would not have. Broader access to treatment is also estimated to result in those who would have returned to work anyway doing so on average 5 weeks earlier. Smaller benefits also exist for TPD.

Broader access to treatment could assist an estimated 29,300 members to return to work over the first forty years. Once transitions back to the workforce and retirement is accounted for this would yield an additional 4,400 full-time equivalent workers to the Australian economy by 2062, boosting GDP by around \$1.1 billion in that year. At the same time a further \$126 million in social and other costs of unemployment would be saved.

Improving access to early interventions – including before members make a claim – would deliver further benefits. In this scenario 21% of IP claimants who access these services are likely to return to work where they otherwise would not have – 11% as a result of broader access to treatment and 10% as a result of access to early intervention. Broader access to treatment and early intervention is also estimated to result in those who would have returned to work anyway doing so on average 10 weeks earlier.

These expanded benefits would assist around 82,900 members to return to work over the first forty years. This is estimated to yield 7,800 extra full-time equivalent workers by 2062, delivering \$1.9 billion in additional GDP in 40 years' time. Social and other costs would be reduced by \$224 million.

For several years, the question has been raised whether insurance through superannuation (IP or total and permanent disability) could do more to assist with greater to wellness and work outcomes – so that people could return to the workforce, and in the case of IP, return earlier. It may also be possible for treatment to prevent a total and permanent disability in the first place.

In both cases the nature and pace of a member's return to work is an important outcome for them as individuals and for the economy as a whole.

Superannuation and health legislation currently prevents insurers from providing medical treatment to rehabilitate members and financial payments must be for temporary illness/injury (IP) or permanent incapacitation (TPD) and for income and occupational support rather than clinical/medical support.

However, the removal of these barriers would allow insurers to expedite treatments that are delayed due to the constraints in the health system or concerns about cost. It would also allow insurers to better assist members to find a suitable treatment provider.

Changes to superannuation laws could also allow temporary incapacity benefits that might be better suited to aid return to work outcomes.

The aim here would not be for insurers to interfere with medical decisions, but instead to collaborate with doctors with the aim of improving work capacity and retaining links back into the workforce.

Removing these barriers and providing greater certainty could also facilitate the development of instalment based TPD benefits, which incorporate financial support with rehabilitation support to improve the prospects of members returning to the workforce.

Such a policy change could also potentially reduce claim costs for insurers, although there would also be additional costs associated with providing medical support and treatment for members. As such, the net change in expenditure is unclear and has not been modelled as part of this work.

The analysis in this chapter finds that while a policy change that gave insurers greater scope to provide treatment and services would produce modest aggregate benefits in the short term, they would be substantial for the members affected and grow significantly over long time periods.

A previous Parliamentary Inquiry in 2018 from the Joint Committee on Corporations and Financial Services, 'Options for greater involvement by private sector life insurers in worker rehabilitation' considered a specific proposal in this area from the FSC. The Inquiry recommended not proceeding with the proposal, and instead proposed it be considered in detail by ASIC. While the FSC proposal included a number of suggestions to minimise risks that would arise by poor system design, the Committee agreed with concerns raised by Maurice Blackburn and others that the risks were too high.

This chapter does not re-analyse the risks raised in that process, instead focusing on how greater scope for insurers to support treatment and services may provide benefits to members directly and the economy more broadly. Compared with other analysis there is more specific treatment of the IP cohort and on the social benefits of labour market participation. The proposal does not seek to impose a requirement on members to seek treatment or rehabilitation services and recognises that any decision to elect to receive treatment should be voluntary.

4.1 Current barriers to greater investment in treatment

There are currently legislative and regulatory barriers preventing life insurer funding of treatment, including within the Life Insurance Act 1995 (Life Act), the Health Insurance Act 1973, the Private Health Insurance Act 2007 (and its subordinate regulations), plus the Superannuation Industry (Supervision) Regulations.

Life insurers are bound by the Life Act not to provide insurance products that sit outside the bounds of the life insurance business. Insurers are able to offer 'continuous disability policies', but cannot offer any products which are seen as part of a health insurance business. This prevents life insurers from funding a range of treatments that could be considered health insurance benefits – such as rebates on elective surgery or physiotherapy. There are currently no arrangements in place to provide specific exceptions under the Act in relation to health insurance business.

The Health Insurance Act 1973 and Private Health Insurance Act 2007 prevents anyone who is not a health insurance provider

from paying benefits relating to the costs of any service on which a Medicare benefit is payable. This prevents life insurers from meeting out-of-pocket costs across a wide range of health services including hospital treatment and certain mental health treatments in the community.

Superannuation regulations prevent payments from superannuation funds unless a condition of release is satisfied. These regulations apply to payments from insurance within super. In effect, these regulations allow payments from insurance to continue a member's income, but prevent any payments designed to help members back into work.

Moreover, legislative requirements mean that death and TPD must be offered by default in MySuper products. This results in a focus on qualifying for lump sum benefits through demonstrating total and permanent disability rather than encouraging the use of rehabilitation treatment and services which may address the underlying injury or illness more effectively.

Finally, the purpose of insurance in super is not legislated. In practice the focus is typically on providing benefits to those who live with a disability rather than encouraging early intervention which may substantially reduce the duration of injuries and improve return to work outcomes. This was acknowledged in recent comments to the FSC conference by the Minister for Superannuation, Financial Services and the Digital Economy, Jane Hume:

“One of the things that I know life insurers have been talking about is... rather than having TPD claims for mental health as lump sums maybe there's a way that life insurers could pay out for treatment rather than as a lump sum.”²²

Taken together, these legislative barriers prevent most engagement by life insurers in seeking to provide benefits and services aimed at improving the quality of life and working capacity of members.

4.2 Potential benefits of increased treatment and services to assist with rehabilitation

The ability for life insurers to pay for rehabilitation treatment and services for their members is likely to have a number of economic and social benefits. Principally it is likely to lead to faster and more widespread access to appropriate treatment. This in turn is likely to improve the likelihood of recovery and the speed at which members recover from injury or ill health. In particular, if insurers are able to fund treatment and reduce the wait time to treatment this is likely to lead to faster recoveries.

Broader access to treatment and services is likely to impact on the broader economy by allowing individuals to recover more quickly. For some members, that will allow them to return to work faster while for others it may result in a quicker improvement in physical and/or mental health and well-being. While not all those suffering an injury will be in a position to return to work, or indeed desire to, for those that do there is likely to be a significant economic and social dividend. Those returning to work are likely to experience:

- Greater lifetime earnings
- Improved self-confidence
- Better health outcomes (returning to work quickly has generally been found to result in improved recovery rates).

In certain circumstances, rehabilitation has been offered successfully, as shown in the case study below.

Box 7: Rehabilitation case study

Condition: Severe depression and anxiety

Occupation: Mowing Crew / General Purpose Operator

The member ceased work June 2020 due to significant depression, anxiety, alcoholism and previous suicide attempts requiring multiple hospitalisations and the need for the member to move in with his daughter for carer support. The member also resided in regional Victoria, which presented further barriers to the member being able to access appropriate supports. MLCL were able to refer the member to a mental health support program to assist with health coaching and psychoeducation to support the member in managing his day-to-day health and wellbeing via mental health management techniques, activity scheduling and exercise routine, nutritional guidance, and sleep hygiene.

MLCL were able to support the member in a return to work in a new occupation in a full-time capacity in December 2021. The member provided feedback to say that he is doing very well, and his new job is 'the best he has ever had'. The member also provided positive feedback for MLCL and the claims consultant, advising that they had been 'a huge guiding influence towards my personal health recovery and happiness.' And that the consultant had been 'incredibly understanding and wonderful'.

Source: MLCL

Returning to work also yields positive impacts for the economy from both increased labour supply and production of goods and services but also greater taxation revenue and lower social security expenditure.

The sections that follow explore the economic impact of two scenarios. The first scenario considers one in which insurers have greater scope to invest in rehabilitation treatment and services for claimants. The second more ambitious scenario allows insurers to not only invest in rehabilitation treatment and services for claimants but also to provide early intervention treatments to members even before they have lodged a claim. The second scenario would allow for faster access to treatment and may avoid the need for some members to lodge claims altogether.

These scenarios do not reflect specific policy or legislative proposals but reflect the potential upside to addressing a range of issues that prevent insurers from investing in treatment in many circumstances. For example, at present insurers are unable to pay for primary healthcare which limits their ability to support appropriate rehabilitation.

The purpose of these scenarios is not to model specific proposals but to consider how a range of potential changes that improve access to treatment and early intervention could potentially impact the Australian economy and individual well-being.

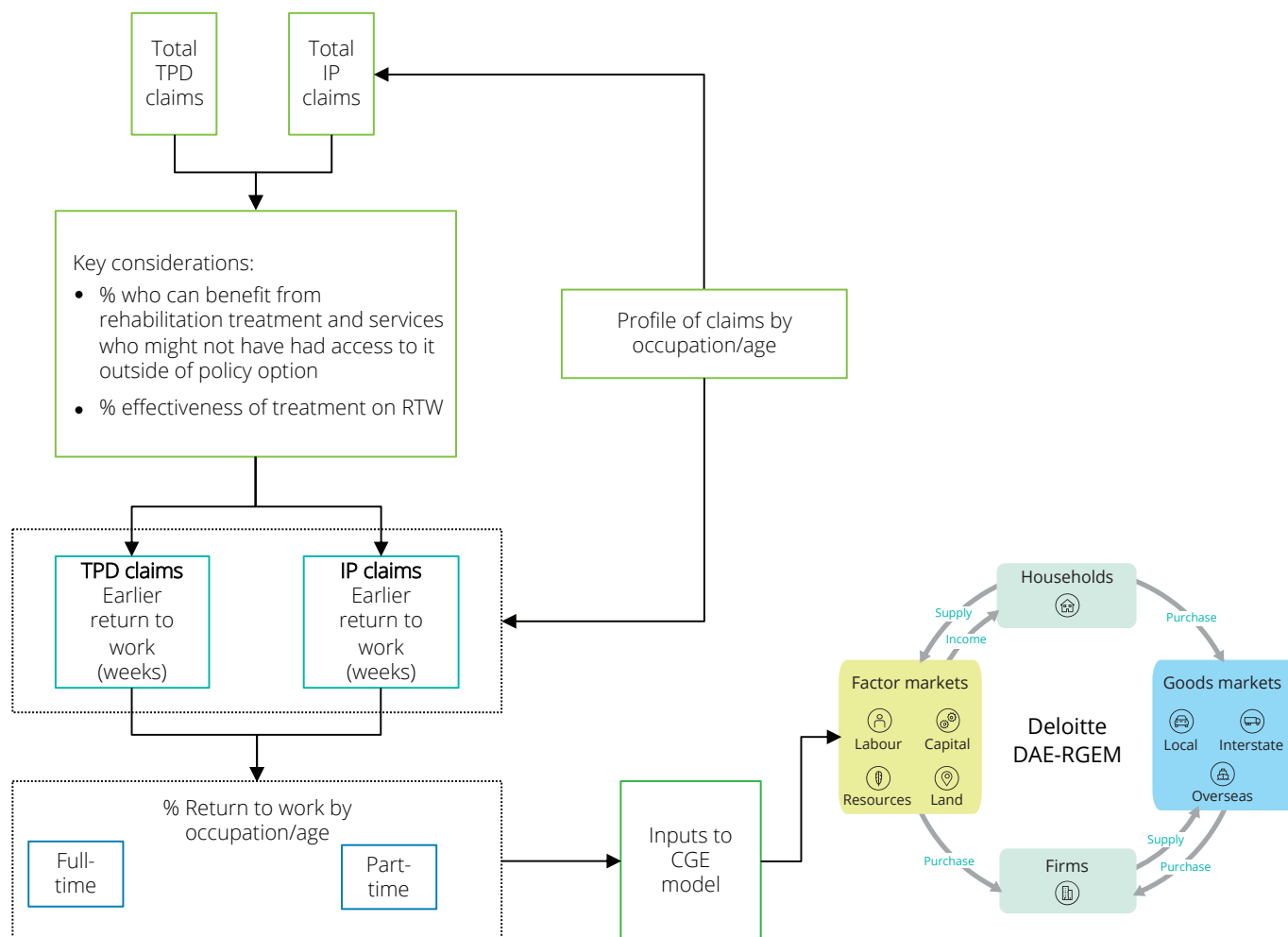
4.3 Economic impacts of broader access to treatment and services

4.3.1.1 Description of scenario and how it is modelled

The first scenario is one where legislative barriers are removed to provide insurers and trustees greater flexibility in providing rehabilitation treatment and services to claimants including covering any out of pocket expenses associated with private health insurance. The majority of claimants who would benefit from such a reform are IP claimants. While it is more difficult to achieve a return to work for those who have a TPD claim, a small proportion of these claimants are also assumed to return to work after receiving rehabilitation in this scenario. These claimants are assumed to be more likely to return to part-time work.

Figure 4.1 provides a high-level overview of the modelling approach. The starting point is the total number of IP and TPD claims in a year. Over the last four calendar years, APRA data indicates there were on average 20,194 finalised and admitted claims for IP and 15,540 for TPD each year.²³ⁱ

Figure 4.1 Overview of modelling approach



Source: Deloitte Access Economics

The next step is to determine the share who might benefit from access to treatment and services who would not have access to treatment and services under current arrangements. The modelling assumes that an additional 22% of IP claimants could benefit from receiving rehabilitation treatment and services. This assumption is based on the share of IP claims involving either mental health or musculoskeletal injuries (29%)²⁴ and accounting for the fact that some claimants already receive rehabilitation support from insurance in super under current arrangements. Mental health and musculoskeletal injuries have been chosen as reflective of the types of illnesses or injuries that are likely to respond well to treatment. This is not to say that other conditions, such as cancer (which accounts for 10% of IP claims), may not benefit from early intervention or treatment. In practice, rehabilitation treatment and services may benefit a wider range of conditions. This means that the population of claimants who could benefit could be 39% or higher. However, accounting for the fact that: (i) not all claimants may choose to seek rehabilitation treatment and services from insurers and (ii) some already receive some forms of support currently, the assumption that an additional 22% of claimants would seek to engage in rehabilitation treatment and services appears reasonable.

The second key consideration is determining the effectiveness of rehabilitation in improving return to work outcomes. Overall, the academic evidence suggests that access to treatment and services can improve the likelihood of returning to work for an injured person by around 50%. A meta-analysis by Kuoppala and Lamminpaa (2008) found that those engaging in multi-modal rehabilitation and work rehabilitation were approximately 50% more likely to return to work following rehabilitation.²⁵ Arnetz (2003) found a similar 50% increase in return to work from a more interventionist rehabilitation and case management intervention for musculoskeletal injuries in a randomised controlled trial.²⁶ When this was applied to insurer data on return to work rates it was estimated that access to treatment and services would mean that among those who access rehabilitation treatment, the likelihood of returning to work would increase by 11 per cent above baseline levels. In other words, 11 per cent of the population of claimants who access rehabilitation treatment and services would return to work in circumstances where they otherwise would not have if they could not access those services.

Evidence also suggests that those who receive rehabilitation are likely to return to work earlier than they otherwise would have. A study by Cadence Economics for the FSC drew on the findings of industry consultations and estimated that average return to work periods would decrease by five weeks as a result of access to treatment and services.²⁷ This assumption is also used in this work. Insurer data indicates that the average return to work period varies from 6 months to 18 months depending on the occupation. Claims data is then used to develop a profile of return to work by age and occupation.

The number of individuals returning to work are then split into full-time and part-time employment based on the share of part-time employment in the economy, which is currently 31%.²⁸ This information is then used to determine the increase in the supply of employees (in FTE terms) by industry over a forty-year time horizon which is then used as an input into an economy-wide CGE model (discussed further in section 4.3.3 below).

The inputs to the CGE model estimate the additional labour supply as a result of broader access to rehabilitation treatment and services relative to what labour supply would have been the absence of broader access. This accounts for a range of key dynamics.

The first key dynamic the modelling accounts for is retirement rates. Someone returning to the workforce aged 50 will have a shorter time period in the workforce than someone returning at age 20. The modelling explicitly accounts for the age profile

of claimants to determine the period of time they remain in the workforce prior to retirement. It is assumed that those injured at age 55 do not return to the workforce.

The second dynamic the modelling accounts for is that while broader access to rehabilitation treatment and services is likely to increase the likelihood individuals return to work in the first twelve months, it may not be appropriate to assume that those on IP would never return to work in the absence of broader access to rehabilitation treatment and services. As such, the modelling assumes that even those who would not have returned to work after receiving additional treatment and services may have done so over time, particularly after IP payments cease. At the same time, there are some IP claimants who are likely to never return to the workforce with one study estimating these individuals constitute 7% of all claimants.²⁹ This study is used to determine the proportion of individuals who would not have returned to work at all in the absence of IP. The remainder are assumed to return in the year following the end of their policy i.e. if they receive IP for 2, 5 or 7 years they would otherwise have returned to work in years 3, 6 and 8. The small proportion whose policy extends to age 60 or greater are assumed not to return to work in the absence of additional access to rehabilitation treatment and services. These assumptions create a realistic profile of return to work in the baseline. In summary, there are essentially three groups of individuals:

1. Those who would have returned to work within a short window in the absence of receiving rehabilitation treatment and services – these individuals are assumed to return to work five weeks faster.
2. Those who would not have returned to work in the absence of receiving rehabilitation treatment and services until the cessation of their IP payments but do return after receiving rehabilitation treatment and services – their labour supply increases for the period between their return to work and when their IP payments end which is either year 3, year 6, year 8 or at retirement.
3. Those who would have never returned to work (assumed to be 7% of all claimants) but do as a result of access to rehabilitation treatment and services- these individuals experience an increase in labour supply up to the point where they retire.

Finally, it is assumed that broader access to treatment and services may allow some workers receiving TPD to return to the workforce. It is assumed that 2% of recipients return to work as a result of receiving access to treatment and services, drawing on evidence of recovery rates in the workers compensation context.

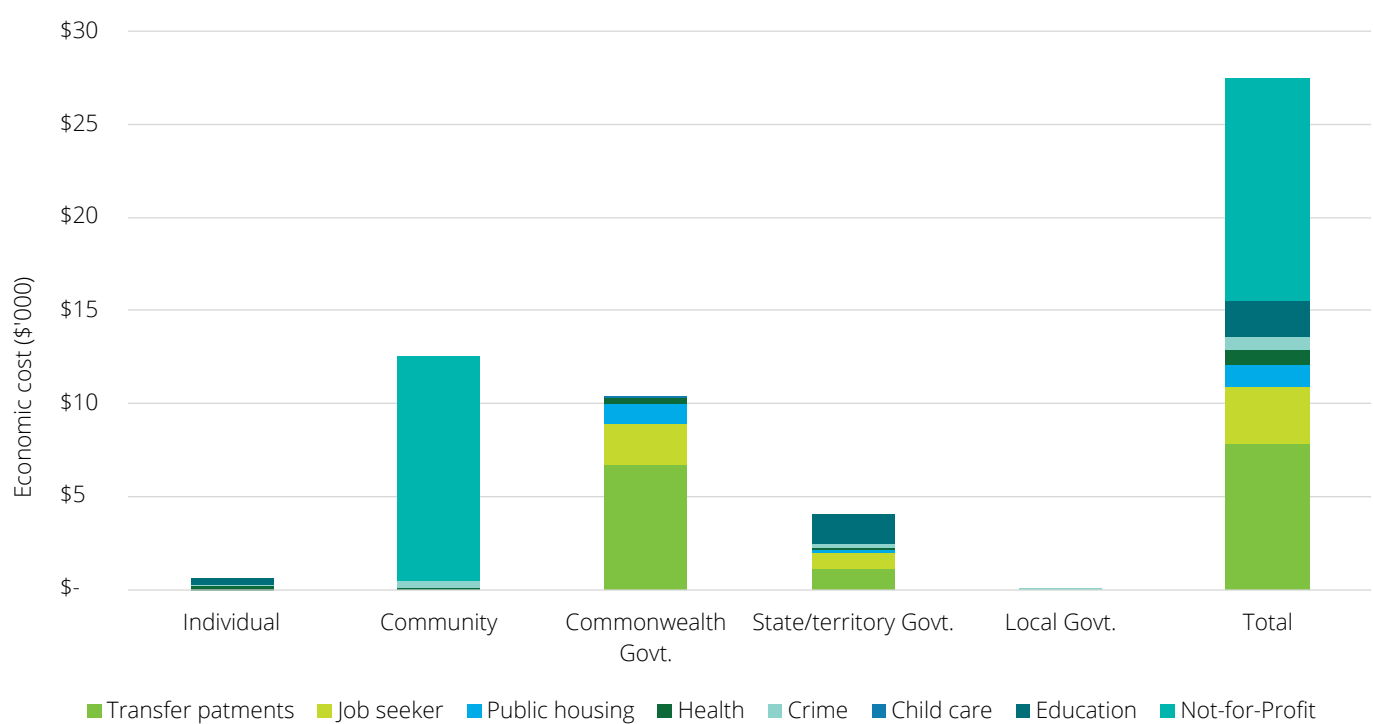
4.3.2 Social costs of unemployment

In addition to the income foregone by the individual there are a range of other costs of unemployment borne by the individual, their family and broader society. Deloitte Access Economics has previously estimated that the total cost of unemployment is around **\$97,000 per unemployed person per year**.³⁰ This consists of:

- **Income foregone** (including scarring effects of long-term unemployment) is by far the largest cost category.
- These costs are borne to different degrees by individuals (through foregone wages), government (through foregone tax revenue) and the community (through scarring effect on future earnings of children of the long-term unemployed).
- Unemployed individuals also forego **superannuation** accumulation, which also sees taxation revenue forgone by the Commonwealth government.
- **Transfer payments** predominately represent benefit payments (including Newstart) to unemployed individuals from the Commonwealth government, but also includes concessions expenditure made by the Victorian government.
- **Not-for-profit** expenditure.

After excluding the impact of unemployment on labour income and superannuation and subsequent taxation, the cost to the community of unemployment is estimated to be approximately \$27,500 per person as illustrated in Chart 4.1 below.

Chart 4.1 Broader economic cost of an unemployed person by category



Source: Deloitte Access Economics, Inclusive growth: Measuring the cost of unemployment in Victoria (2017).

This can then be used to estimate the social cost of unemployment avoided by the role of broader access to treatment and services in facilitating individuals to return to work. The avoided social costs are set out in Chart 4.2 below.

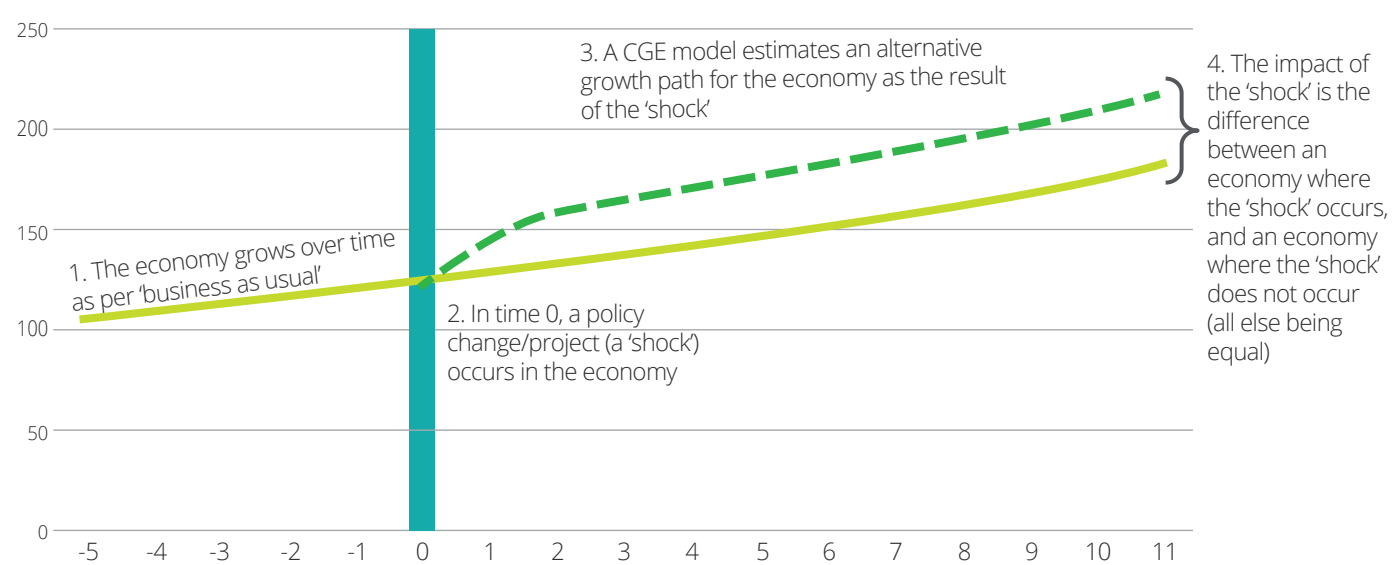
These economic costs capture the cost to the community but do not capture the costs to an individual's well-being including their physical and mental health. Engagement in employment has been found to be associated with improved physical and mental health outcomes and can enhance an individual's feelings of social connectedness and purpose. These social benefits may be just as important or more important for individual than the economic returns from re-entering the workforce.

4.3.3 Economy-wide impacts

This study uses CGE modelling to measure the net economic impacts of the increase in return to work on the economy over time. The net impact refers to the economic growth and employment attributable to the decision relative to a "baseline" scenario in which broader access to treatment and services does not take place. The policy scenario is a 'shock' to the baseline where it is possible to simulate the economy-wide impact of the increase in labour force participation as a result of broader access to treatment and services.

The notion of additional activity over a baseline is visualised in Figure 4.2. The focus on additional economic activity means that this study focuses on the economic activity and number of jobs created through a greater focus on return to wellness and work. The focus of additional activity makes impact studies a powerful tool to understand the outcomes of the policy decisions. More information on the Deloitte Access Economics' Computable General Equilibrium (DAE-RGEM) model can be found in Appendix A.

Figure 4.2 Economic impact as the difference between two scenarios



Source: DAE-RGEM

Increased employment across different skill types directly stimulates economic activity across all sectors in the economy. Labour intensive sectors (such as business services, construction) are the highest beneficiaries compared to others. The net increase in employment is slightly smaller than the direct labour supply increase from access to treatment and services. This is because an increase in labour supply results in a small decrease in real wages which leads to a marginal reduction in labour supply. Due to the economy's ability to absorb the additional workers and a downward slopping demand curve, real wages decrease by an average 0.002% over the period to 2062.

The results of the CGE modelling and social cost of employment are summarised in Chart 4.2 below. The net impact can be measured in terms of the change in GDP and net change in employment as a result of greater return to work. By 2062, broader access to treatment and services results in an additional 4,382 full time equivalent (FTE) employees with an increase in GDP of \$1.07 billion in that year.

Over the period to 2062, this increase in GDP translates to \$4.8 billion in net present value terms (using a discount rate of 7%). There are also significant avoided social costs of unemployment, which are estimated to be worth \$126 million in 2062.

The increase in FTEs is significantly lower than the cumulative number of members returning to work, with 29,348 members assumed to return to work as a result of the policy over the forty year period.^v The increase in FTEs accounts for the fact that in the absence of the policy some members would have returned to work once their IP period was exhausted. It also accounts for transitions to retirement and that some may return to work in a part-time capacity.

The impact on GDP is similar in magnitude to that found in the core scenario of a study by Cadence Economics on the benefits of early intervention when results are compared over a similar time horizon (20 years). However, the Cadence Economics study focused on TPD only and assumed a larger effect size of early intervention on TPD so the results of the Cadence Economics study are not directly comparable to those found by this study.

Chart 4.2 Economy-wide impacts and avoided social costs, scenario 1



Source: DAE-RGEM & Deloitte Access Economics

The increase in GDP reflects the net sectoral activities in the economy over the modelling period. This in turn reflects the fact that, as labour intensive sectors benefit with increased labour supply in the economy, some industries, however, experience crowding out. That is, activity in growing sectors leads to reduced activity in some parts of the economy as it draws productive

resources away from these industries (such as agriculture and some mining sectors). However, the reduced activities in some industries does not necessarily imply that the industry is projected to contract. Rather, it indicates that, relative to the base case, it is simply not growing as fast.

^v This figure excludes those who would have returned to work in the absence of the policy but return to work 5 weeks faster as a result of broader access to treatment and services.

4.4 Economic impacts of broader access to treatment and services plus early intervention

4.4.1.1 Description of scenario and how it is modelled

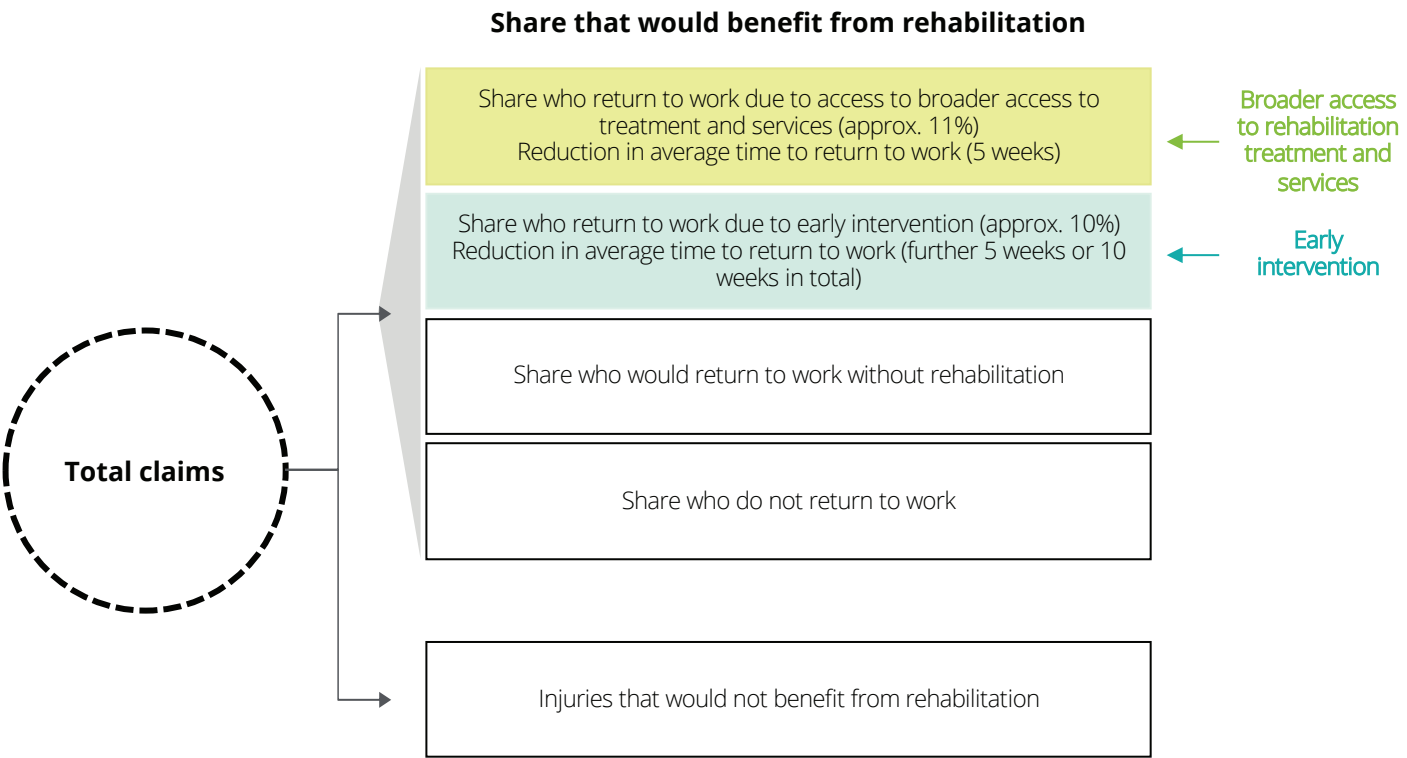
The second scenario involves insurers not only investing in broader access to treatment and services but providing faster access through **early intervention**. This faster access to benefits and services means some members may recover before needing to lodge a claim. Another way of conceptualising the intervention is that insurers invest more in prevention to ensure that members receive treatment before a condition worsens and leads to adverse health or employment outcomes.

There is significant evidence pointing to the benefits of intervention across a range of social policy areas from early childhood education to welfare programs to mental and physical health programs. To inform the potential benefits of early intervention in the context of life insurance a literature scan was completed. This found a range of evidence on the effectiveness of early intervention in securing improved return to work outcomes. Based on this evidence, it was assumed that early intervention increased the likelihood of a return to work by 30% in line with the findings of a study by McLennan et al (2022) who examine a model of early intervention vocational rehabilitation for people with a spinal cord injury in Australia.³¹ They report a 30% increase in return to work rates over baseline employment as a result of the program which they note is similar to estimates of 35% in the literature.

It is also assumed that widespread access to early intervention leads to a faster return to work relative to scenario 1. This scenario assumes a return to work that is 10 weeks earlier in line with the estimates of reduction in sick days from the randomised controlled trial in Arnetz (2003). This can be thought of as a high end scenario for how effective early intervention might reduce time out of the workforce. Figure 4.3 provides an overview of the cohorts impacted by both of the scenarios. A key point is that of those who would benefit from faster access to benefits and services there are:

- a proportion who do not return to work regardless of either intervention
- a proportion who return to work without broader access to treatment and services
- a proportion who return to work as a result of broader access to treatment and services
- a proportion who return to work as a result of early intervention but not broader access to treatment and services alone.

Figure 4.3 Outline of the cohorts impacted by the two scenarios



Source: Deloitte Access Economics

Conservatively, no increase in return to work for TPD claims is assumed to result from greater access to early intervention.

Importantly, there may also be a cohort who may access early intervention benefits and services but who would not otherwise have lodged a claim. It is difficult to determine the size of this cohort but it is worth noting that early intervention may benefit a wider group than just claimants (which is the basis of the modelling presented here).

4.4.1.2 Economy-wide impacts and avoided social costs

The faster access to treatment under the second scenario leads to employable people to return to the labour force in the economy over the period of 2022 to 2062. An increase in labour supply pushes the real wages to drop more than the first scenario. However, overall this scenario stimulates more labour demand across the economy.

The results of the CGE modelling and social cost of employment are summarised in Chart 4.3. Increased employment coupled with expanded services and construction sectors in the economy increases the size of the economy more in the second scenario compared to the first scenario. By 2062, broader access to treatment and services and early intervention results in an additional 7,783 FTEs with an increase in GDP of \$1.9 billion in that year. In total, 82,945 members are assumed to return to work as a result of early intervention and broader access to treatment and services (this number excludes those who would have otherwise returned to work but return to work 10 weeks faster as a result of the policy).

Chart 4.3 Economy-wide impact and avoided social cost of unemployment from broader access to treatment and services and early intervention



Source: Deloitte Access Economics.

Over the period to 2062, this increase in GDP translates to \$8.9 billion in net present value terms (using a discount rate of 7%). There are also significant avoided social costs of unemployment, which are estimated to be worth \$27,000 per person, or \$224 million in 2062.

4.5 Conclusion

We know from experience that access to early intervention and a broader range of benefits and services can improve the health and workforce outcomes of individuals. Insurance in superannuation provides a safety net to support members who suffer an insured event, but under current legislation insurers are limited in how they can help members improve outcomes and return to work.

Scenario 1 above shows that simple changes to remove these barriers could unlock substantial benefits – not only to individual members but also to the broader Australian economy.

These benefits are large when compared with the financial benefits of existing insurance arrangements. Simply expanding access to treatment and services would deliver economic benefits which total around a half a years' worth of TPD insurance payouts through superannuation after 40 years. Taking advantage of early intervention would see better outcomes still. Under scenario 2 GDP benefits are equivalent to almost a years' worth of TPD payouts after 40 years.

It is important to remember who the biggest winners are from these changes – those suffering from injury or illness that can be improved or prevented by greater access to treatment and health services. This relatively small group of vulnerable Australians would enjoy the largest share of the benefits.

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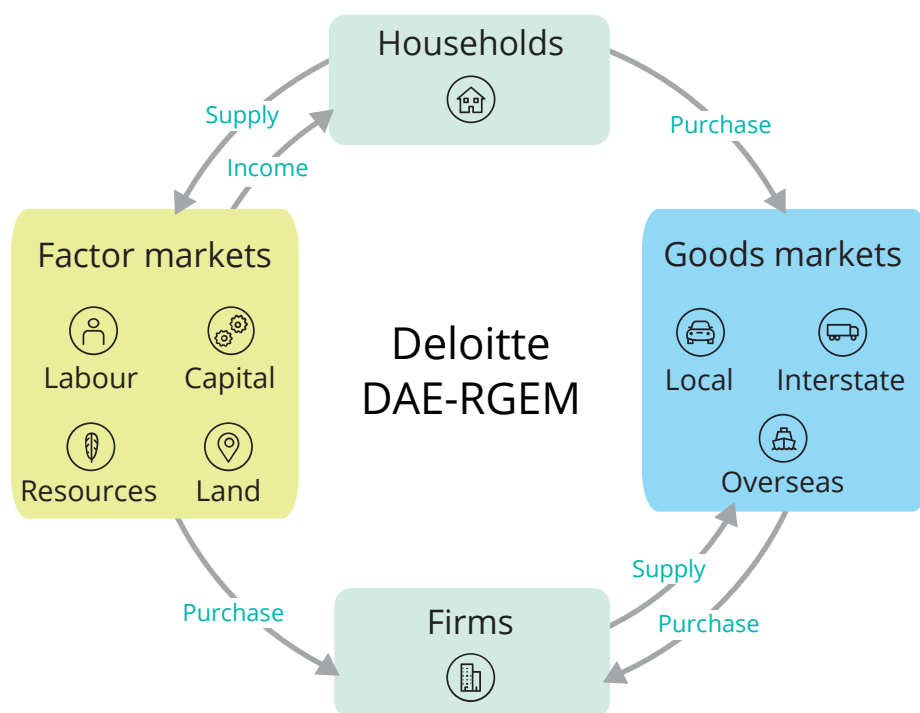
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Appendix A General Equilibrium Framework

The project utilises the Deloitte Access Economics' Regional General Equilibrium Model (DAE-RGEM). DAE-RGEM is a large scale, dynamic, multi-region, multi-commodity CGE model of the world economy with bottom up modelling of Australian regions. DAE-RGEM encompasses all economic activity in an economy – including production, consumption, employment, taxes and trade – and the inter linkages between them. For this project, the model has been customised to explicitly identify the Australian economy, including some of its unique economic characteristics.

Figure A.1 is a stylised diagram showing the circular flow of income and spending that occurs in DAE-RGEM. To meet demand for products, firms purchase inputs from other producers and hire factors of production (labour and capital). Producers pay wages and rent (factor income) which accrue to households. Households spend their income on goods and services, pay taxes and put some away for savings. The government uses tax revenue to purchase goods and services, while savings are used by investors to buy capital goods to facilitate future consumption. As DAE-RGEM is an open economy model, it also includes trade flows with other regions, interstate and foreign countries.

Figure A.1 The components of DAE-RGEM and their relationships



Source: Deloitte Access Economics

A.1 Economic modelling framework

The Deloitte Access Economics Regional General Equilibrium Model (DAE-RGEM) is a large scale, dynamic, multi-region, multi-commodity computable general equilibrium model of the world economy with bottom up modelling of Australian regions. The model allows policy analysis in a single, robust, integrated economic framework. This model projects changes in macroeconomic aggregates such as GDP, employment, export volumes, investment and private consumption. At the sectoral level, detailed results such as output, exports, imports and employment are also produced.

The model is based upon a set of key underlying relationships between the various components of the model, each which represent a different group of agents in the economy. These relationships are solved simultaneously, and so there is no logical start or end point for describing how the model actually works. However, they can be viewed as a system of interconnected markets with appropriate specifications of demand, supply and the market clearing conditions that determine the equilibrium prices and quantity produced, consumed and traded.

DAE-RGEM is based on a substantial body of accepted microeconomic theory. Key assumptions underpinning the model are:

- The model contains a 'regional consumer' that receives all income from factor payments (labour, capital, land and natural resources), taxes and net foreign income from borrowing (lending).
- Income is allocated across household consumption, government consumption and savings so as to maximise a Cobb-Douglas (C-D) utility function.
- Household consumption for composite goods is determined by minimising expenditure via a CDE (Constant Differences of Elasticities) expenditure function. For most regions, households can source consumption goods only from domestic and imported sources. In the Australian regions, households can also source goods from interstate. In all cases, the choice of commodities by source is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.
- Government consumption for composite goods, and goods from different sources (domestic, imported and interstate), is determined by maximising utility via a C-D utility function.
- All savings generated in each region are used to purchase bonds whose price movements reflect movements in the price of creating capital.
- Producers supply goods by combining aggregate intermediate inputs and primary factors in fixed proportions (the Leontief assumption). Composite intermediate inputs are also combined in fixed proportions, whereas individual primary factors are combined using a CES production function.
- Producers are cost minimisers, and in doing so, choose between domestic, imported and interstate intermediate inputs via a CRESH production function.
- The supply of labour is positively influenced by movements in the real wage rate governed by an elasticity of supply.
- Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. A global investor ranks countries as investment destinations based on two factors: global investment and rates of return in a given region compared with global rates of return. Once the aggregate investment has been determined for Australia, aggregate investment in each Australian sub-region is determined by an Australian investor based on: Australian investment and rates of return in a given sub-region compared with the national rate of return.
- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.
- Prices are determined via market-clearing conditions that require sectoral output (supply) to equal the amount sold (demand) to final users (households and government), intermediate users (firms and investors), foreigners (international exports), and other Australian regions (interstate exports).
- For internationally-traded goods (imports and exports), the Armington assumption is applied whereby the same goods produced in different countries are treated as imperfect substitutes. But, in relative terms, imported goods from different regions are treated as closer substitutes than domestically-produced goods and imported composites. Goods traded interstate within the Australian regions are assumed to be closer substitutes again.
- The model accounts for greenhouse gas emissions from fossil fuel combustion. Taxes can be applied to emissions, which are converted to good-specific sales taxes that impact on demand. Emission quotas can be set by region and these can be traded, at a value equal to the carbon tax avoided, where a region's emissions fall below or exceed their quota.

A.1.1 Households

Each region in the model has a so-called representative household that receives and spends all income. The representative household allocates income across three different expenditure areas: private household consumption; government consumption; and savings.

The representative household interacts with producers in two ways. First, in allocating expenditure across household and government consumption, this sustains demand for production. Second, the representative household owns and receives all income from factor payments (labour, capital, land and natural resources) as well as net taxes. Factors of production are used by producers as inputs into production along with intermediate inputs. The level of production, as well as supply of factors, determines the amount of income generated in each region. The representative household's relationship with investors is through the supply of investable funds – savings. The relationship between the representative household and the international sector is twofold. First, importers compete with domestic producers in consumption markets. Second, other regions in the model can lend (borrow) money from each other.

- The representative household allocates income across three different expenditure areas – private household consumption; government consumption; and savings – to maximise a Cobb Douglas utility function.
- Private household consumption on composite goods is determined by minimising a CDE (Constant Differences of Elasticities) expenditure function. Private household consumption on composite goods from different sources is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.
- Government consumption on composite goods, and composite goods from different sources, is determined by maximising a Cobb-Douglas utility function.
- All savings generated in each region is used to purchase bonds whose price movements reflect movements in the price of generating capital.

A.1.2 Producers

Apart from selling goods and services to households and government, producers sell products to each other (intermediate usage) and to investors. Intermediate usage is where one producer supplies inputs to another's production. For example, coal producers supply inputs to the electricity sector. Capital is an input into production. Investors react to the conditions facing producers in a region to determine the amount of investment. Generally, increases in production are accompanied by increased investment. In addition, the production of machinery, construction of buildings and the like that forms the basis of a region's capital stock, is undertaken by producers. In other words, investment demand adds to household and government expenditure from the representative household, to determine the demand for goods and services in a region. Producers interact with international markets

in two main ways. First, they compete with producers in overseas regions for export markets, as well as in their own region. Second, they use inputs from overseas in their production.

- Sectoral output equals the amount demanded by consumers (households and government) and intermediate users (firms and investors) as well as exports.
- Intermediate inputs are assumed to be combined in fixed proportions at the composite level. As mentioned above, the exception to this is the electricity sector that is able to substitute different technologies (brown coal, black coal, oil, gas, hydropower and other renewables) using the 'technology bundle' approach developed by ABARE (1996).
- To minimise costs, producers substitute between domestic and imported intermediate inputs is governed by the Armington assumption as well as between primary factors of production (through a CES aggregator). Substitution between skilled and unskilled labour is also allowed (again via a CES function).
- The supply of labour is positively influenced by movements in the wage rate governed by an elasticity of supply is (assumed to be 0.2). This implies that changes influencing the demand for labour, positively or negatively, will impact both the level of employment and the wage rate. This is a typical labour market specification for a dynamic model such as DAE-RGEM. There is other labour market 'settings' that can be used. First, the labour market could take on long-run characteristics with aggregate employment being fixed and any changes to labour demand changes being absorbed through movements in the wage rate. Second, the labour market could take on short-run characteristics with fixed wages and flexible employment levels. 51 Economic and social impact of increasing Australia's humanitarian intake.

A.1.3 Investors

- Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. The global investor ranks countries as investment destination based on two factors: current economic growth and rates of return in a given region compared with global rates of return.
- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.

A.1.4 International

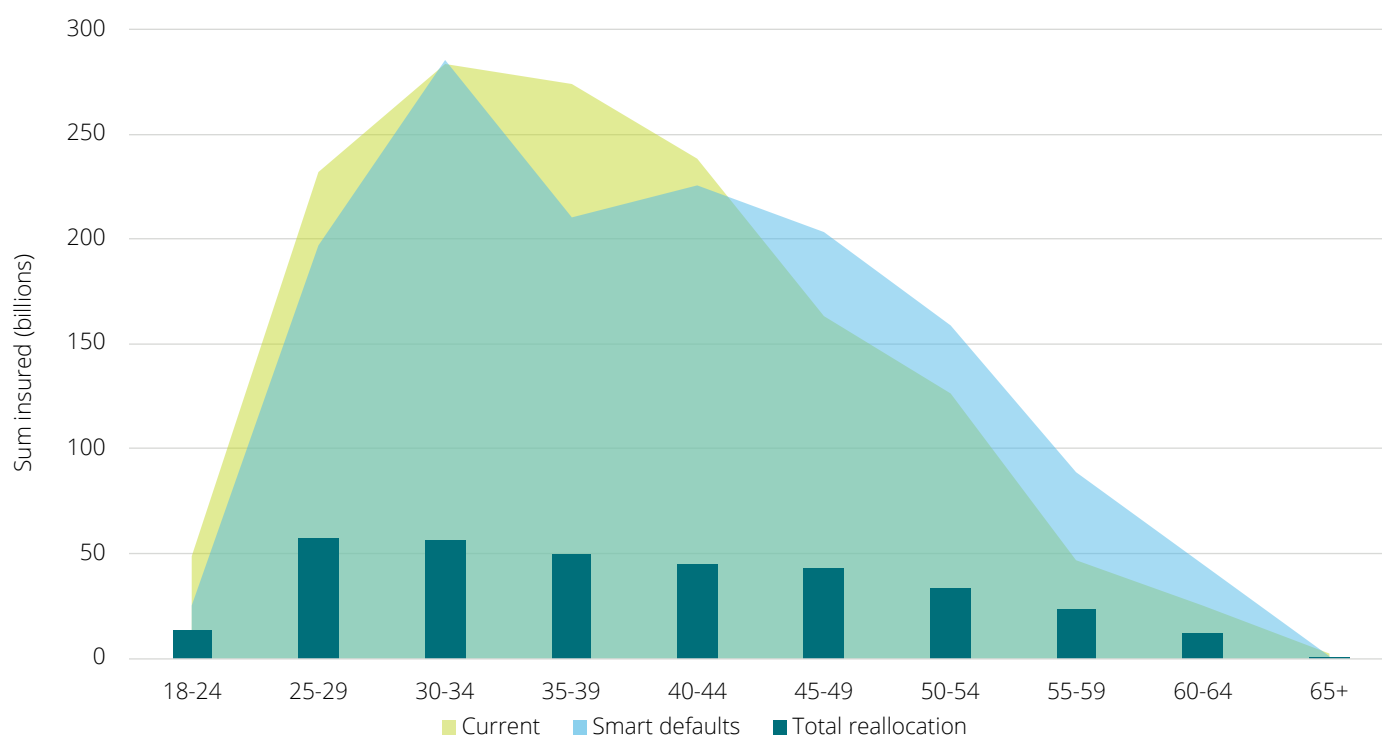
- Each of the components outlined above operate, simultaneously, in each region of the model. That is, for any simulation the model forecasts change to trade and investment flows within, and between, regions subject to optimising behaviour by producers, consumers and investors. Of course, this implies some global conditions that must be met, such as global exports and global imports, are the same and that global debt repayment equals global debt receipts each year.

Appendix B TPD and IP reallocations

B.1. Distributions of TPD and IP

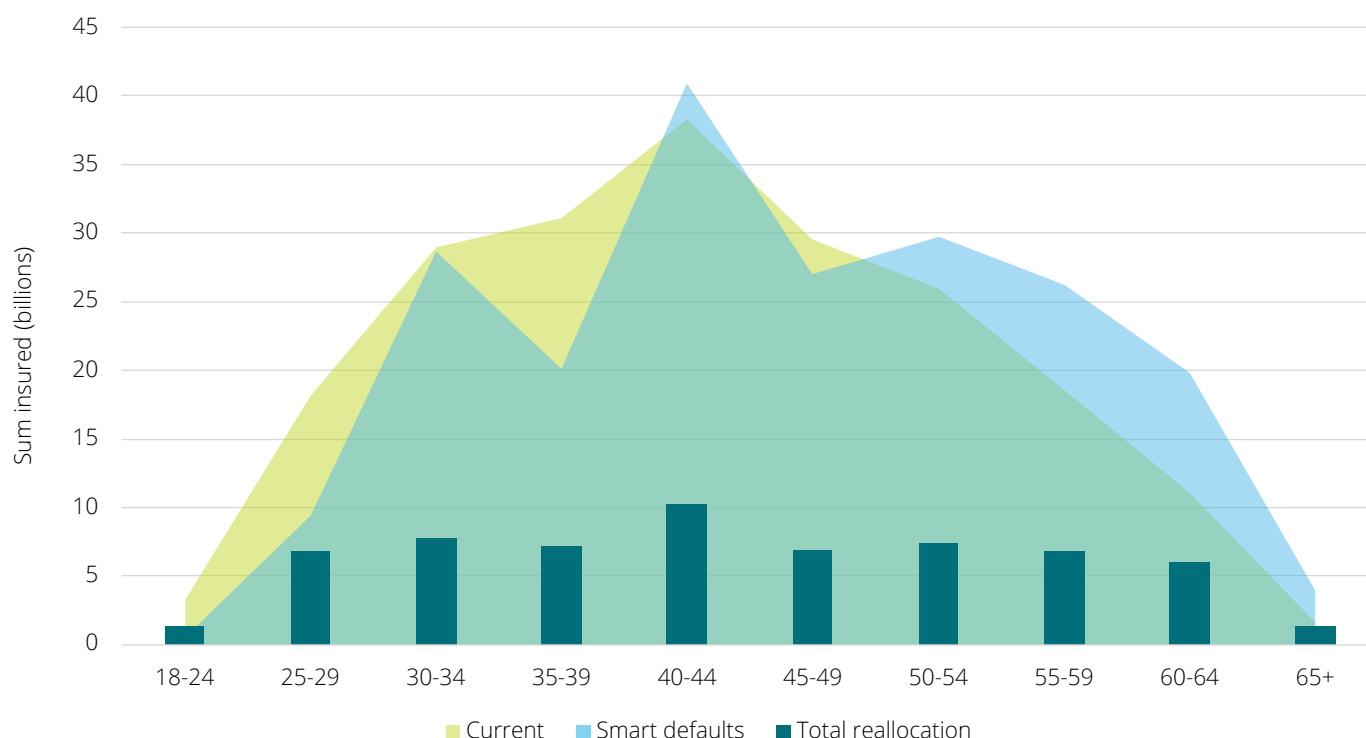
The charts below show the reallocation of sum insured for TPD. For brevity, these were excluded from the body of the report.

Chart B.1: Redistribution of sum insured under smarter defaults by age cohort – TPD insurance



Source: Deloitte Access Economics, RiceWarner, APRA.

Chart B.2: Redistribution of sum insured under smarter defaults by age cohort – IP insurance



Source: Deloitte Access Economics, RiceWarner, APRA.

B.2. Limitations and areas for further research

Due to a number of uncertainties, this analysis has not modelled the aggregate change in cost that might be experienced by members resulting from better data access. Broadly, this analysis assumes that members who receive less insurance cover under better data access could expect to see a decline in their premiums as a result. Similarly, members receiving more insurance would be given the option of changing their cover for higher premiums. It is also possible that insurers administration costs increase modestly as a result of the additional data collection.

Another potential way to explore the benefits of smarter insurance would be through changes in individual utility. This approach would allow identification of the cohorts and members that benefit most from a given level of insurance, depending on their relative risk aversion and level of wealth (higher income earners could be expected to value insurance more than low-income earners). This research considered such an approach and designed a utility function, however, it was not included in this report. Whilst the concept of sum insured is an imperfect measure in which to assess benefits of insurance, expressing the benefits in terms of utility is equally as convoluted to interpret. In addition, the values of utility are highly dependent on the choice of utility function.

As part of this analysis, this report collected data from a sample of insurers in order to determine the distribution of sum insured across cohorts, as well as understand the cost of cover. Whilst Deloitte received data covering much of the total market, the full sample of insurers was incomplete due to data unavailability. This required the analysis to scale the market based on aggregate market figures obtained from APRA reports. As such it is possible that the precise market distribution of sum insured and premiums included in this analysis could differ from actual.

Limitation of our work

General use restriction

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