MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

TE TAI ŌHANGA
THE TREASURY

Joint Report: New Zealand Income Insurance: Levy Setting Discussion Paper

Date:	12 October 2022	**Report No:**	T2022/2225 MBIE: 2223-1368
		File Number:	DE-11-5-4

Action sought

	Action sought	Deadline
Minister of Finance (Hon Grant Robertson)	**Note** the scenario analysis included in this paper prior to submitting the '*New Zealand Income Insurance: decisions on outstanding policy questions'* Cabinet paper	13 October 2022
Minister for Social Development and Employment Hon Carmel Sepuloni	**Provide** feedback to Officials on any further scenario work that would be useful for the discussion at DEV on 19 October	14 October 2022

Contact for telephone discussion (if required)

Name	Position	Telephone	1st Contact
Joseph Sant	Principal Advisor, Balance Sheet and Transactions	Privacy of natural persons	✓
Alistair Birchall	Head of Balance Sheet and Transactions		
Gerald Minnee	Director, Employment Skills and Immigration Policy, MBIE		
Libby Gerard	Manager, Income Insurance Policy, MBIE		

Minister's Office actions (if required)

Return the signed report to Treasury and the Ministry for Business Innovation and Employment.

Note any feedback on the quality of the report	

Enclosure: No

Treasury Report: New Zealand Income Insurance: Levy Setting Discussion Paper

Executive Summary

On 19 October 2022, the Cabinet Economic Development Committee will consider the paper *New Zealand Income Insurance: decisions on outstanding policy questions*. Ahead of that discussion, Ministers have asked for more advice on setting the levy for the New Zealand Income Insurance (NZII) Scheme. This paper sets out:

- the range of feasible levy rates
- scenario analysis to show the trade-offs and implications of starting at different feasible levy rates (including a 'phasing in' approach where the levy is initially set below a likely higher long-term cost), and
- options Ministers have if the actual claims costs exceed levy rate income.

Risk preference is a key consideration when setting the levy

A lower levy allows for a period of bedding the Scheme in and has a more modest impact on individuals and business budgets in the short term, relative to if the levy were higher. The Crown balance sheet can provide flexibility to allow for decisions on how any realised risk would be allocated to future levy payers or the Crown in the event of higher claims.

There is very low certainty on what claims experience will eventuate – driven by claims frequency, duration, and income levels. The previous public consultation earlier this year referenced an indicative levy of 2.77 percent of salary and wages, which reflected the modelling at the time of Method 2.5 assumptions.

Medium or high claims experience alongside a lower levy would result in costs being passed from the current generation to future generations. Even with a rapid increase in levy rates, a deficit of up to $5 billion in one economic cycle would add a ~0.3-0.4 percentage point premium to levies for 12-15 years (if government did not intervene).[1]

The opposite is also true, however. Setting a medium to high levy could result in overcollection if claims experience is realised at a lower level. Rapid and responsive levy reductions can reduce this risk, while also providing optionality to run the Scheme at a small surplus (this is the most efficient and resilient long-term state for the Scheme).

Given the inherent uncertainty in expected claims costs, Ministers will need to consider their risk appetite for initial levy setting. Lower levies increase the probability of being in an under-funded position, which is significantly more complex to unwind than an over-funded position. However, this will need to be weighed against the perceived benefits of phasing the Scheme in, particularly if there is a belief that claims will take some time to ramp up.

The financial position of the Scheme and the claims experience will be regularly reviewed.

[1] Potential under-funding and over-funding scenarios and tools to manage the implications can be found on pages 10-12 of this briefing.

Fiscal tools provide flexibility but they come at a net cost

A Crown Lending Facility is intended to be in place at the implementation of the Scheme and can absorb any initial uncertainty. Its primary purpose, however, would be to support the timing mismatches between Scheme costs and revenues within an economic cycle.

Ministers could use the loan facility to a greater degree than current intentions, i.e., potentially a $3 billion facility to manage fluctuations as part of the normal economic cycle. The facility could support flexibility to manage the cashflow risk of implementing a lower levy but the longer this deficit is in place, the greater the additional cost that would be transferred to future levy payers.

Alternative tools to address funding shortfalls could be considered, such as concessional financing or capital grants to the Scheme (for example, to reduce the size or duration of the 0.3-0.4 percentage point premium described above, Ministers could provide an early injection of up to $4 billion alongside levy increases).

All Scheme deficits will count against net debt and any additional funding support that is not generated via levies (now or into the future) would also be counted against budget allowances.

Public consultation can communicate the risk preferences of Ministers

Public expectations will be informed by any announcement alongside introduction of the NZII Bill. This provides an opportunity to signal the government's preferred approach to levy setting and, subject to agreement at Cabinet, its intention to publicly consult further on the levy rate in 2024 prior to the commencement of the scheme.

Recommended Action

We recommend that you:

a **note** that your *New Zealand Income Insurance: decisions on outstanding policy questions* Cabinet paper is due to be submitted to the Economic Development Committee on 13 October for a 19 October discussion

b **note** that officials were commissioned to provide additional detail on the funding and financing implications of setting a levy that is lower in the possible range of claims experience

c **note** that there is a high degree of uncertainty for actual claims experience, meaning funding policy settings will need flexibility to adjust as information on scheme utilisation appears

d **note** that due to the inherent uncertainty in future claims experience, the key judgement is risk appetite to trade-off:

i Insulating business and individuals from short-term budgeting pressures while the benefits of the scheme are experienced by New Zealanders (a phase-in approach)

ii A higher risk that claims experience is greater than initial levies, resulting in an underfunded position. This could lead to rapid levy increases or a longer period of higher levies borne by future generations (if government did not intervene)

e **note** that the NZII scheme is more efficient for levy payers and more resilient to economic shocks by running at a small average surplus over time, but large surpluses and deficits should be avoided to maintain integrity of the scheme, and

f **agree** to request any additional analysis from officials that will support Ministers ahead of a public announcement of the NZII Scheme (potentially in December 2022).

Agree / disagree.

Privacy of natural persons

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Libby Gerard
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Hon Grant Robertson
Minister of Finance

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Joint Report: New Zealand Income Insurance: Levy Setting Discussion Paper

Purpose of Report

1. This paper is intended to support Ministers ahead of the consideration of the paper *New Zealand Income Insurance: decisions on outstanding policy questions* at Cabinet's Economic Development Committee on 19 October. The paper builds on MBIE's 23 September 2022 paper [2223-1130 refers]. This paper sets out:

    - the range of feasible levy rates
    - scenario analysis to show the trade-offs and implications of starting at different feasible levy rates (including a 'phasing in' approach where the levy is initially set below a likely higher long-term cost), and
    - options Ministers have if the actual claims costs exceed levy rate income.

2. The paper can support Ministers to consider the approach to the levy and any public announcement of the scheme (likely to be in December).

3. The focus of scenario analysis in this paper is contained to the funding and financing of the scheme, i.e., levy pathways. Policy settings and economic impacts are unchanged from previous Cabinet papers.[2]

4. This report has been developed at short notice by the Treasury, in partnership with the Ministry for Business Innovation and Employment (MBIE) and the Accident Compensation Corporation (ACC). Indicative analysis in this paper could lead to more specific commissioning of scenarios for Ministerial decision making in due course.

Background

5. In June 2022, Cabinet agreed that the costs of NZII be met through a compulsory levy, paid by employers and employees [DEV-22-MIN-0157].

    - Funding: The Scheme is intended to be Pay-As-You-Go, with all funding sourced via levies, and
    - Financing: A Crown Lending Facility will provide flexibility for timing mismatches between revenue and cost. This is due to a stable levy price and fluctuations in claims experience within an economic cycle. Financing is to be repaid at cost to the Crown.

6. A Crown funding policy will be established prior to implementation, giving effect to the following principles[3]:

    a **Sustainability/Resilience:** NZII should be self-sustaining and resilient to economic volatility and unexpected shocks

[2] An up-front Crown grant to the Scheme has previously been ruled out, consistent with the principle of being self-sustaining (para 6). This decision may need to be revisited should the Government favour a lower starting levy.

[3] These principles draw on the Office of the Auditor General's good practice guide for setting and administering fees and levies for cost recovery. Where the OAG guidance prioritises Equity and Justifiability, the NZII scheme has wrapped this into 'Stability' and 'Resilience'. The Funding and Financing framework has been set with flexibility to cope with economic shocks and fluctuations to smooth the impact between the current and future generation.

b **Stability:** levies should smooth fluctuations in cost and revenue as far as practicable

c **Efficiency:** levies should avoid over- and under-collection as far as practicable, recognising each state entails cost, and

d **Transparency/Accountability:** While the above principles are guides, Ministers should retain decision making rights, to consider wider social and economic factors. All decisions should be transparently communicated via the funding policy.

7. The funding policy could set upper or lower limits for NZII surpluses or deficits as well as maximum levy changes. However, with a lack of empirical New Zealand information about likely behavioural responses and different views on the level of claims, there is significant uncertainty on levy setting at the outset. This may require greater flexibility for the first few funding periods in terms of amending policy settings or choices around levy-setting or other funding options.

8. The public consultation process undertaken earlier this year referenced an indicative levy of 2.77 percent of salary and wages (including GST). This was proposed to be split equally with employers and employees each paying 1.39 percent. This figure reflected the modelling at the time of Method 2.5 (see the table 1 below). [4]

9. Methodologies on forecasting claims volumes have been debated at length by Officials. No single method will be right - the long-term levy price of the Scheme will need to adjust to actual experience (i.e., controls over experience are policy settings and not fiscal settings). Therefore, the initial levy will need to be set with this uncertainty in mind.

10. We understand that Ministers are likely to want to provide an updated indicative levy rate at the same time as any public announcement on the NZII Bill (anticipated to be introduced in December). The upcoming Cabinet paper also proposed that there will be public consultation ahead of any levy rate being finalised and introduced (this is likely to follow in 2024).

Modelling Status and Sensitivity

Modelling is fit for purpose to be indicative, but improvements are still required

11. Prior to sharing the analysis, it is important to understand that modelling is still being fine-tuned. Officials are comfortable that the information presented is fit for purpose to be indicative, particularly given the inherent uncertainty in the behavioural response to NZII.

12. There have been modifications that create relatively small adjustments, even since the last paper to Ministers in late September. One example of this is the disaggregation of fixed (administration) and variable (claims) costs. This has increased the ‘Method 2’ rate from 1.66% to 1.72%.

13. We expect there will be further movements in the modelling over the next few weeks, including some downward pressures.[5] We encourage Ministers to focus less on a specific number and more on the trade-off of risks that will be required through starting lower or higher in the range of potential levies.

[4] Annex 1 & 2 provides the detail behind each of the four claims methodologies (Methods,1, 2, 2.5, 3) developed by officials alongside Business New Zealand and the NZCTU.

[5] These adjustments include: residency requirements will effectively exclude a large proportion of levy paying temporary migrants; a six month contribution period (costs were modelled assuming a three month contribution period) and removing population overlaps between Economic Displacement and Health Condition and Disability claims.

Three key drivers set levy sensitivity

Methodology	Behavioural Response	Levy Rate	Volume ('000's)		Duration (Months)		Avg Claimable Income ($000's)	
			ED	HCD	ED	HCD	ED	HCD
Method 1 (NZ: 80% uptake) (Jobseeker HCD)	Low	1.40%	62	83	3.4	4.2	47	33
Method 2 (NZ: 100% uptake) (Low Change HCD)	Med-Low	1.72%	91	103	4.2	2.8	47	33
Method 2.5 (International adj. for NZ Data)	Med-High	3.01%	112	135	4.9	2.7	49	57
Method 3 (International Benchmarks)	High	4.05%	139	205	5.0	2.1	57	57
Sensitivity		+/-0.25%	+/-8.7%		+/-0.25 months		+/-8.7%	

Modelling data uses 2018 information with demographic and inflation uplifts to provide a forecast for 2025 implementation.

14. This paper does not relitigate the accuracy of any one of the methodologies. This table has been included to support an understanding of the drivers of forecast levy prices.

- For Economic Displacement (ED) claims, the scenarios generally exhibit a lower to higher range of drivers for frequency, duration and expense of claims.
- Health Condition and Disability (HCD) assumptions are more nuanced, where method 3 includes a higher number of short duration claims and method 2 has a much lower average income per claim assumption.
- Method 2.5 balances the HCD approaches through lower claim volumes but higher impact through duration and income.
- Ultimately, the levy will have to respond to actual claims experience. The sensitivity row highlights the movement in any one of the drivers that would cause a 0.25 percentage point movement in levy rates (increase or decrease).

Risk Criteria and Fiscal Implications

15. Four key factors Ministers may wish to trade-off to define a preferred risk appetite are:

a **the Balance of risk between the Crown and Scheme participants:** given the uncertainty around claims uptake and costs, the higher the initial levy rate, the less risk that the Crown may need to provide additional funding support for a sustainable scheme.

Lower levies increase the probability of being in an under-funded position, which is significantly more complex to unwind than an over-funded position. However, this will need to be weighed against the perceived benefits of phasing the Scheme in, particularly if there is a belief that claims will take some time to ramp up.

b **phasing in at an initially lower levy rate:** focus on short-term pressures for levy affordability and reflects a preference to not over-charge individuals and businesses at the outset, with choices for how future Scheme funding can be allocated between future levy payers and the Crown.

c **intergenerational equity:** ensure short-term decisions do not unreasonably pass costs or benefits between current and future generations. This relates to the principle of levy stability but being too rigid at the outset could run counter to long-term benefits of the Scheme.

d **NZII Scheme efficiency:** positioning the Scheme to run at a small operating surplus will produce the lowest average cost to levy payers over time, without holding excessive funds outside of economic circulation. However, public perception would need to accept the build-up of assets at the outset to support this approach.

16. Additional to the risk factors, above, we highlight the fiscal implications of setting the initial levy. Even with perfect information, the NZII Scheme is expected to access Crown financing from time to time.

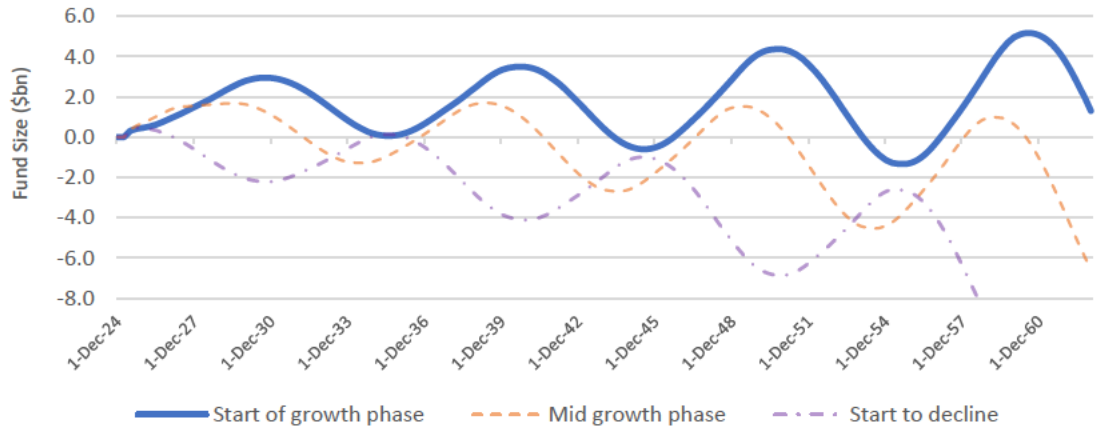
Scheme deficits impact net debt but do not impact allowances

17. Claim rates will fluctuate, particularly for ED Claims. HCD claims are expected to have a more consistent profile but, as is the case with ACC, there may be a small pro-cyclical trend where claims are lower when work is scarce (and vice versa).

18. A Crown Lending Facility will be in place to allow for timing mismatches between Scheme cost and revenue. Chart 1 (below) represents getting the forecast right – i.e., method 2 levies and method 2 claims experience. It shows three things:

- The NZII Scheme Fund will alternately grow and be drawn down in response to lower and higher claims activity
- Modelled rates have assumed implementation at the start of an economic cycle. Starting at any other point in the cycle is a net cost to NZII, highlighting the impact of financing charges. An additional impact is that financing charges are modelled to be greater than investment returns.[6], and
- The 'expected' surplus and deficit are in the range of +/-$3 billion across two economic cycles. This can set a 'guardrail' that will signal the need for levy adjustment if breached, particularly if this occurs early – a sign that the levy has not been set correctly.

Chart 1: Expected Volatility – Using Claims Method 2



[6] Financing costs (-5%) are modelled as higher than investment returns (+3%) due to the timing of incurring these benefits/costs. Relatively low asset values and short periods to invest means limited diversification of assets, while deficits are expected in recessionary periods, with an assumed higher weighted average cost of capital.

20. This cyclical approach that allows third parties (levy payers) to repay any draw on the Crown Lending Facility satisfies the fiscal management approach, meaning there is no impact on budget allowances due to a Scheme deficit. However, any surplus or deficit in the Scheme would count against net debt (approximately +/-0.2 percentage points per $1 billion).

Concessional financing or funding support would impact operating allowances

21. Cabinet has previously ruled out funding support for the Scheme. However, significant economic shocks in the early stage of the Scheme, or large deficits, may bring these decisions into play at a later stage. Options to support the Scheme to recover larger than expected deficits over time are:

(No impact on allowances)

- Levy adjustments – changes to claims experience are expected to be modest but more flexibility might be required as the Scheme beds in
- Changes to scheme parameters that would alter the generosity of entitlements and therefore expected cost of claims (although this is out of scope for this paper)
- Crown loans (allowing greater and longer draws on the Crown Lending Facility) – cost-recovered financing allows time for levy adjustments to recover deficits[7]

(Impact on allowances)

- Concessional or zero-interest financing – the Crown Lending Facility will implement a cost-recovery approach. However, financing charges on a large deficit will add significant cost to levy payers and slow down fiscal recovery of the Scheme. The Government could make a policy decision to absorb some or all of the financing costs, and
- Capital injections – well timed capital injections can offer more support to the Scheme in the face of deficits than financing support, particularly in combination with targeted levy adjustments.

Options

22. Highly uncertain claims forecasts requires a choice of who bears the uncertainty, and how. Under current settings, levy payers own all of the price risk, with Crown financing able to smooth the impact of this risk.

23. A quantitative assessment of a limited number of scenarios supports our understanding of upside and downside risks, including the magnitude of funding and financing pressures. The fiscal implications described in the following analysis should be weighed against the risk criteria.

24. Below we have presented two scenarios, which are intended to illustrate an underfunded position and overfunded position, but there is a spectrum of possible scenarios and choices for how quickly or slowly to adjust levies.

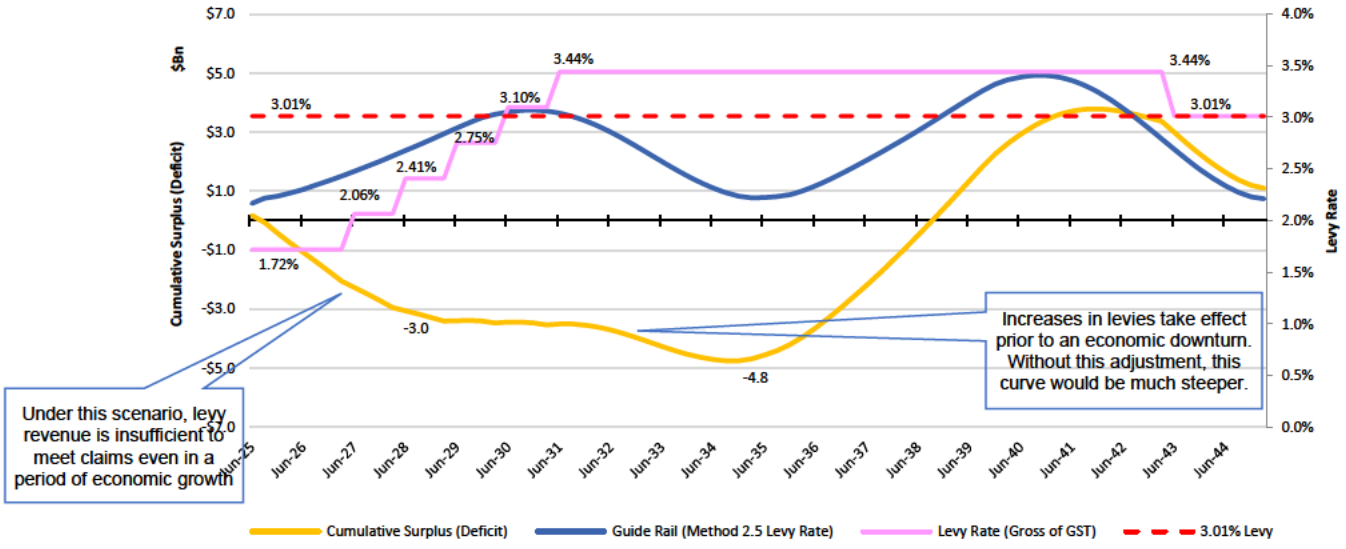
[7] This option spreads the costs of any shortfall over a longer period of time. Levy increases would be less sharp, but the levy would be above the equil brium levy for longer.

Scenario 1: Initial levy rate income <u>less than</u> actual claims cost

25. This scenario is intended to support consideration of a 'phase-in' approach to levy setting. This acknowledges that a lower levy will enable individuals and businesses will be able to get used to the additional insurance cost, society will become familiar with the support mechanism that is enabled and there is a chance to build an evidence base around the real cost of NZII.

26. In the case that there is a low behavioural response, levies would only need to adjust slowly to actual experience. However, should there be higher claims experience, the short-term benefits are traded off against the potential for significant price pressures and higher costs for future generations.

	Levy and Credit Response	Other funding and financing choices you have
Method 2 Levy Method 2.5 Claims Experience (Under-funding of 1.3% p.a.)	Levy • 20% levy increase in year 3 and the same scale increase in the following 4 years • Levies increase beyond 3.01% to 3.44% • The 0.43% premium is to recover the $4.8 billion deficit accrued by 2035 (one economic cycle) • Levies stay at 3.44% for 12 years before dropping to the long-term equilibrium of 3.01% Credit • Crown lending would be set at $3 billion but the additional ~$2 billion could be accommodated relatively easily (10% of Crown liquidity buffer) • Sustained deficits would need to be incorporated into the Crown's debt programme.	• Levies could increase on a slower or faster track. A slower track would result in a greater amount of under-funding and either: o A higher levy than 3.31%, or o A longer period with a higher levy, or o A combination of the two. *Net debt would be at a higher level for a longer period but no impact on budget allowances.* • Crown could bear some funding risk. This could include: o Concessional Financing (sub-market or zero interest financing) o Grants/Capital Injections (larger and earlier provision of capital could limit the scale of levy increases > 3.01% (see graphs at the top of page 10) o If the capital injection were provided as a convertible loan, the decision to change this to a grant could occur later, once more information is available. *All forms of funding support would count against budget allowances. There is limited benefit for net debt as the debt is transferred from levy payers to the Crown.*

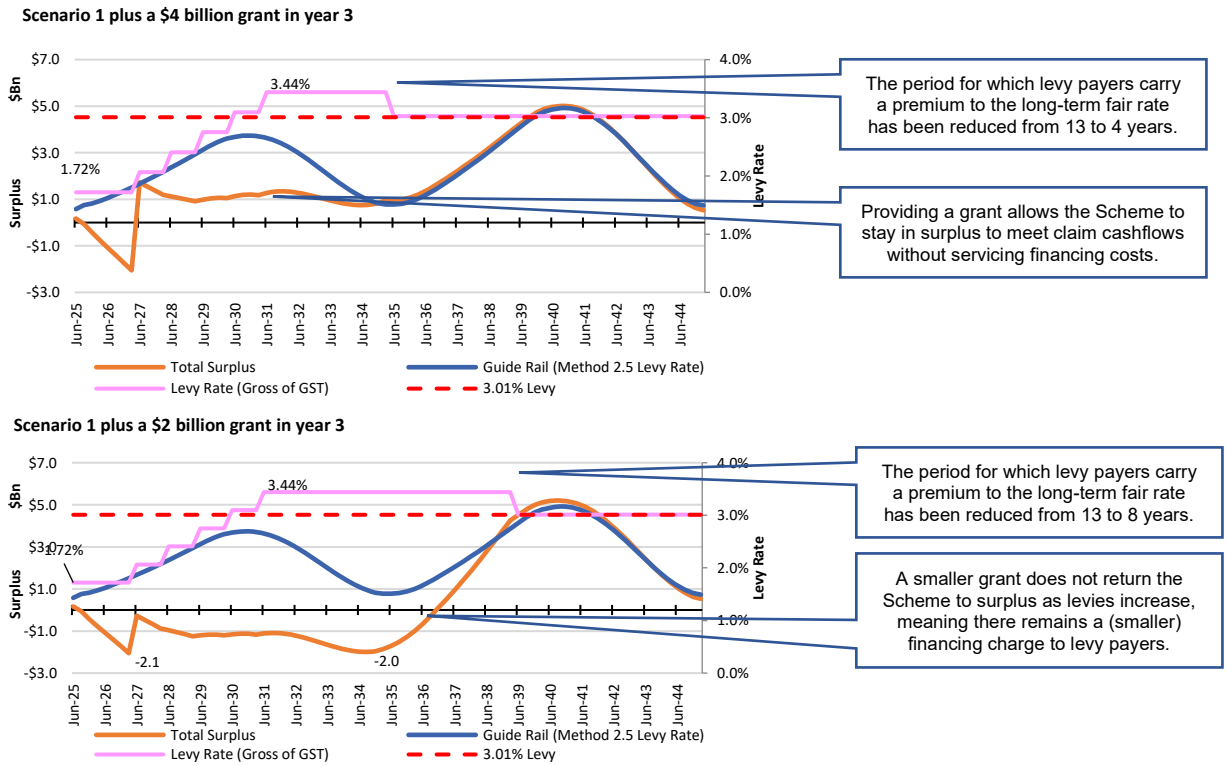


27. Should claims experience reach the high forecast of Method 3, the scale of deficit (relative to Method 2) is $22 billion, following a rapid increase in levies from 1.72% to a minimum of 5%.

28. The Crown is the underwriter of the Scheme but does not have a firm obligation to support the Scheme via additional funding, ie. a self-sustaining Scheme would past

costs to future levy payers. However, a higher degree of under-funding may cause the Government to be required to provide funding support to protect future levy payers unduly bearing a premium to recover costs. This risk is higher should Ministers start at a levy lower in the range of possible outcomes. A Specific Fiscal Risk is included in current financial reporting to represent this risk.

29. We have considered the impact of grants to augment the impact of the 0.43 percentage points premium to the equilibrium levy. The graphs below show a $2 billion and a $4 billion grant in year 3, alongside the same levy profile:



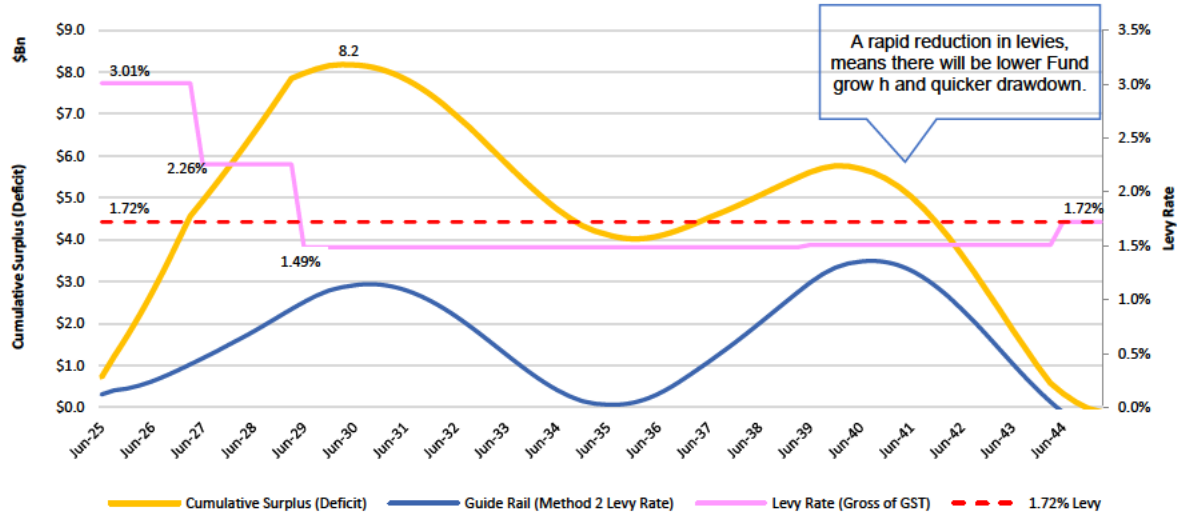
30. The flexibility of the settings for when and how fast to adjust levy rates can be adjusted within the modelling, but a simple rule would be earlier and larger support would limit either the scale or the duration of any premium future levy payers would face over and above a long-term fair rate. The scale of the premium could be reduced, but this would increase the duration (and vice versa).

31. Ministers could take rapid action to use financing options soon after the claims experience indicates that costs are set too low. To avoid long-term consequence, it would be worthwhile considering avoiding this impact in the first place. The difference might be if Ministers were willing to take on a portion of the forecasting risk, to insulate levy payers. However, $4 billion only reduces the impact by ~70%.

Scenario 2: Initial levy rate income exceeds actual claims costs

32. This scenario shows the counterfactual to a ‘phase-in’ approach, highlighting that rapid levy reductions may be more palatable than levy increases (from a scheme integrity perspective).

Scenario 2: Over-funding	Levy and Credit Response	Other funding and financing choices you have
Method 2.5 Levy Method 2 Claims Experience (Over-funding of 1.3% p.a.)	Levy • Levies have been modelled to reduce quickly in line with the intergenerational expectation that future levy payers do not benefit from current. • 25% levy decrease in year 3 and again in year 5 • Levies decrease beyond 1.72% to 1.49% • The (0.23)% premium is to return the $8.2 billion surplus to levy payers. • The peak surplus is in 2030, as this incorporates the growth phase of the economic cycle Credit • Unlikely to be called, the capacity charge to the Scheme may be waived for a period.	• A slower reduction or a drop to ~1.55%-1.60% (as opposed to $1.49) supports a lower levy for a longer period. • This allows for some asset diversification and even lower likelihood of paying financing charges. • Optionality to position the Scheme to run at a small operating surplus (most efficient). *Net debt would be lower, but for a limited time.* *No impact on budget allowances.*



33. The downside risk of claims experience consistent with Method 3 is still a possibility. However, at a 1 percentage points under-funded position this impact would be lower than Scenario 1. Alternatively, the over-funded position is exacerbated due to an over-funded position of 1.6 percentage points should a very low behavioural response eventuate (Method 1).

34. There are choices to adapt the pace of levy changes, but information will be imperfect for a period of time after the Scheme is implemented. This is why we have modelled changes from year 3 and not moving immediately to the long-term rate. Once claims experience indicates a mismatch between levies and demand, Ministers could take rapid action to increase levies or could consider larger levy adjustments (noting that these both come with trade-offs).

Conclusions

35. A lower funding position reduces efficiency and resilience of the Scheme to economic shocks. Setting a levy higher in the range of potential outcomes will always provide more protection against the fiscal risks to the Scheme. Holding too much funding in the Scheme may have an economic impact, as the surplus represents reduced consumption from households.

36. The purpose of highlighting these two scenarios is to show that deficits could be more complex and lengthier to unwind than surpluses, or potentially prompt use of different levers such as changes in other policy settings to alter expected cost of claims.

37. The funding principles in June 2022's Cabinet paper has set the risk appetite to date, resulting in a public consultation of a levy consistent with Method 2.5. Therefore, there must be a rationale to move away from this approach. Ministers could communicate their risk preferences in a future public consultation. Expectation setting for an adopted risk appetite could start with any public announcement for NZII.

38. Financing options do provide flexibility to the Scheme but come at an interest cost to levy payers. Ministers will need to assess whether the potential for higher levy rates for a longer period are a risk worth bearing to 'phase-in' the Scheme at a lower levy.

39. Alternatively, there could be a proactive choice for the Crown to take on this forecasting risk, meaning levy payers would only be charged the actual experience of the Scheme, without recovering a period of underfunding. This would be a net cost to operating allowances and could be billions of dollars, depending on the scale of risk appetite for setting a lower levy.

40. We have only advised on fiscal levers and not policy levers. Should Ministers wish to reduce the fiscal risk to the Scheme while also choosing a lower introductory levy then this would need either a funding (capital grant) or policy commitment.

[Annex A & B have been reproduced from MBIE's 23 September 22 Report with typographical changes only. They are included here for ease of reference, if required.]

Annex A: Methods for estimating the cost of the economic displacement scheme

	Method 1 – low behavioural change (Jobseeker benchmark)	Method 2 – medium behavioural change (Jobseeker benchmark)	Method 3 – behavioural change based on international experience
Claims	There are approximately 873,000 job ends per year. Household Labour Force Survey (HLFS) data suggests that approximately 116,000 of these are due to redundancy. Of this group, approximately 52,500 (13%) who have a gap between jobs of more than one month. The remainder have either no gap, or the gap is less than one month. Assuming 80% of them take-up the SUI [NZII Scheme] benefits,[8] this provides approximately 42,000 claims for SUI from those who we know currently have a gap of more than one month between jobs. To this group we add a portion of those who previously had a short or no gap between jobs after being made redundant.[9] This results in a total number of claims for the scheme of approximately 61,400 claims	The starting point is as per Method 1. But this method assumes 100% of this group will take-up SUI. To this group we add a portion (higher than Method 1) of those who previously had a short or no gap between jobs after being made redundant.[10] This reflects that many people are not eligible for Jobseeker (i.e. they receive $0 per week). This results in a total number of claims for the scheme of approximately 90,443 claims	This method implies a claims rate using the Massachusetts unemployment insurance scheme. In Massachusetts they experience a claims rate of approximately 6.3% of employees per year. Applied to New Zealand with adjustments for generosity, this results in a total number of claims for the scheme of approximately 138,000 claims
Duration	Two durations are used to reflect the two different groups entering the scheme; those who already experience a gap (greater than one month) after redundancy, and those with a gap of less than one month. For those who already experience gaps of greater than one month, a behavioural response is applied to produce an average duration of 3.4 months[11]For those who currently have a small or no gap between employment, a shorter duration of 1 month is applied.	Two durations are used to reflect the two different groups entering the scheme; those who already experience a gap (greater than one month) after redundancy, and those with a gap of less than one month. For those who already experience gaps of greater than one month, a behavioural response is applied to produce an average duration of 4.2 months:[12] For those who currently have a small or no gap between employment, a shorter duration is applied, at 50% the rate of the above group.	The average duration of workers on the Massachusetts scheme is 4.5 months, and this is adjusted to account for New Zealand's proposed SUI scheme being more generous. This results in an average duration of approximately 5 months.:
Income	Apply average monthly income of $ 3913	Apply average monthly income of $ 3913	Apply average monthly income of $4756

[8] Some workers may choose not to take it up because they are moving abroad or they are unwilling to accept job search obligations (for instance because they are retiring).

[9] These workers are responding to the behavioural effect of the relative generosity of SUI compared to the existing Jobseeker rate. The comparison rate used is $360 per week, which is the average level of Jobseeker (plus other benefits) received.

[10] These workers are responding to the behavioural effect of the relative generosity of SUI compared to the existing Jobseeker rate. The comparison rate used is $280 per week (different to Method 1). $280 is the base Jobseeker rate without additional benefits and is used to reflect the fact that many people who are made redundant are not eligible for any Jobseeker support.

[11] The base rate for duration is taken from the historical average unemployment spell (absent SUI). A behavioural response is then added to this duration to reflect the relative generosity of the SUI scheme compared to existing Jobseeker support (using the $360 per week rate).

[12] A behavioural response is then added to this duration to reflect the relative generosity of the SUI scheme compared to existing Jobseeker support (using the $280 per week rate).

Annex B: Methods estimating the cost of the scheme covering work loss due to HCD

	Method 1 – Jobseeker HCD	Method 2 – International A (low behavioural change)	Method 3 – International B (high behavioural change)
Claims	Based on current data, there are approximately 36,700 job ends due to health conditions or disabilities every year, who experience a gap in employment. Taking this as the base figure, we apply a behavioural adjustment to this to account for a difference in generosity (payment level) between the Jobseeker-Health Conditions and Disability payment ($375) and the proposed SUI scheme. This provides an estimate of the number of claims, of approximately 54,200 claims who experience a gap in employment. On top of this, we estimate a further approx. 29,200 do not experience a gap in employment.	This approach uses an international benchmark (Denmark) to estimate an annual take-up rate of HCD, as a proportion of the total number of New Zealand employees. This method calculates the take-up rate by only looking at the number of claims in the Danish system that are 30 days or more (to match the proposed design of the New Zealand scheme). This provides an estimate of approximately 103,400 claims	This approach uses an international benchmark (Denmark) to estimate an annual take-up rate of HCD, as a proportion of the total number of New Zealand employees. This method calculates the take-up rate by including some claims which are between 8 – 30 days, as well as all claims which are 30+ days. This provides an estimate of approximately 204,600 claims
Duration	Based on current data we can calculate the average gap between jobs for those with HCD. A behavioural adjustment is then applied to this to account for a difference in generosity (payment level) between the Jobseeker-Health Conditions and Disability payment ($375) and the proposed SUI scheme. - 4.2 months For the group without existing gaps in employment (i.e. the additional people who decide to take a gap as a result of the scheme) we apply a rate of 50% of the above group.	Based on the Danish benchmark, we can estimate the average duration spent on the Danish scheme, and adjust it to account for the generosity (payment level, and duration) of the proposed New Zealand scheme. The Danish average duration is approximately 10.5 weeks (for those with HCD over 30 days). This is then increased to give an average duration of 2.8 months.	Based on the Danish benchmark, we can estimate the average duration spent on the Danish scheme and adjust it to account for the generosity (payment level, and duration) of the proposed New Zealand scheme. The Danish average duration is approx. 7.5 weeks (for those with HCD 8 days and over). This is then increased to give 2.1 months
Income	Scale all claimants to the Household Economic Survey (HES) earnings distribution observed for HCD (mean = $2781)	Scale all claimants to the HES earnings distribution observed for HCD $2781	Scale all claims to all-jobs distr bution (mean = $4756)