

Reference: 20210020

22 February 2021



Dear 

Thank you for your Official Information Act request, received on 24 January 2021. You requested:

*I request the following documents under the provisions of the OIA.*

*T2020/2965 Experimental estimates of NZ's wealth distribution.*

*T2020/2610 Waimea Dam*

*T2020/2905 Initial advice on hospitality sector support package*

*T2020/2906 Correspondence from the Mayor of the Marlborough District Council*

*T2020/2577 STAPP Loan Scheme*

### Information being released

Please find enclosed the following documents:

Item	Date	Document Description	Decision
1.	4 August 2020	Treasury Report T2020/2577: STAPP Loan Scheme – Parameters and Key Considerations	Release in part
2.	4 August 2020	Treasury Report T2020/2610: Waimea Dam	Release in part
3.	20 August 2020	Treasury Report T2020/2905: Initial Advice on a Hospitality Sector Support Package	Release in part
4.	28 August 2020	Treasury Report T2020/2965: Experimental estimates of New Zealand's wealth distribution	Release in part

I have decided to release the documents listed above, subject to information being withheld under one or more of the following sections of the Official Information Act, as applicable:

- names and contact details of officials, under section 9(2)(g)(ii) – to maintain the effective conduct of public affairs through protecting ministers, members of government organisations, officers and employees from improper pressure or harassment,
- advice still under consideration, section 9(2)(f)(iv) – to maintain the current constitutional conventions protecting the confidentiality of advice tendered by Ministers and officials,
- 9(2)(ba)(i) – to protect information which is subject to an obligation of confidence or which any person has been or could be compelled to provide under the authority of any enactment, where the making available of the information would be likely to prejudice the supply of similar information, or information from the same source, and it is in the public interest that such information should continue to be supplied,
- under section 9(2)(h) – to maintain legal professional privilege,
- under section 9(2)(a) – to protect the privacy of natural persons, including that of deceased natural persons,
- 9(2)(j) – to enable a Minister of the Crown or any public service agency or organisation holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations),
- certain sensitive advice, under section 9(2)(g)(i) – to maintain the effective conduct of public affairs through the free and frank expression of opinions,
- commercially sensitive information, under section 9(2)(b)(ii) – to protect the commercial position of the person who supplied the information, or who is the subject of the information,

Direct dial phone numbers of officials have been redacted under section 9(2)(k) in order to reduce the possibility of staff being exposed to phishing and other scams. This is because information released under the OIA may end up in the public domain, for example, on websites including Treasury's website.

### **Information to be withheld**

There is an additional document covered by your request that I have decided to withhold in full under the following sections of the Official Information Act, as applicable:

- 9(2)(i) - enable a Minister of the Crown or any public service agency or organisation holding the information to carry out, without prejudice or disadvantage, commercial activities,

- 9(2)(j) – to enable a Minister of the Crown or any public service agency or organisation holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).

In making my decision, I have considered the public interest considerations in section 9(1) of the Official Information Act.

Please note that this letter (with your personal details removed) and enclosed documents may be published on the Treasury website.

This reply addresses the information you requested. You have the right to ask the Ombudsman to investigate and review my decision.

Yours sincerely

Juston Anderson  
**Principal Advisor**

# OIA 20210020

## Table of Contents

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1.	<a href="#"><u>T2020 2577 - Treasury Report - Strategic Tourism Assets Protection Programme (STAPP) loan scheme - parameters and key considerations</u></a>	1
2.	<a href="#"><u>T2020 2610 - Treasury Report - Waimea Dam</u></a>	11
3.	<a href="#"><u>T2020 2905 - Treasury Report - Initial Advice on a Hospitality Sector Support Package</u></a>	20
4.	<a href="#"><u>T2020 2965 - Treasury Report - Experimental estimates of New Zealand's wealth</u></a>	33

IN-CONFIDENCE



## Treasury Report: STAPP Loan Scheme – Parameters and Key Considerations

Date:	4 August 2020	Report No:	T2020/2577
		File Number:	SH-11-1-4

### Action sought

	Action sought	Deadline
Hon Grant Robertson Minister of Finance	<p><b>Note</b> the content of this report.</p> <p><b>Refer</b> this report to Tourism Recovery Ministers (TRM) ahead of the meeting at 4.30pm on Wednesday 5 August.</p> <p><b>Discuss</b> with Tourism Recovery Ministers a preferred agency to deliver a STAPP loan scheme, in context of Ministers' preferred timeframe to agree and publicly announce further details.</p> <p><b>Discuss</b> with Tourism Recovery Ministers the key policy objectives of the STAPP loan scheme, in context of Ministers' overall strategic objectives for the tourism sector to determine the remaining terms and conditions.</p> <p><b>Direct</b> officials to design and recommend a STAPP loan scheme consistent with Ministerial objectives, for decision at a future TRM meeting.</p>	None.

### Contact for telephone discussion (if required)

Name	Position	Telephone		1st Contact
Alice Ansley	Analyst, Transitions, Regions, and Economic Development	s9(2)(k)	s9(2)(g)(ii)	✓
Gopika Gnanakumar	Senior Adviser, Firm Support			
Jean Le Roux	Manager, Transitions, Regions, and Economic Development			

**Minister's Office actions** (if required)

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**Return** the signed report to Treasury.

**Refer** a copy of this report to Hon Kelvin Davis (Minister of Tourism), Hon Nanaia Mahuta (Minister for Māori Development), Hon Eugenie Sage (Minister of Conservation), and Fletcher Tabuteau (Under Secretary Regional Economic Development)

Note any  
feedback on  
the quality of  
the report

**Enclosure:**      No

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**IN-CONFIDENCE****Treasury Report: STAPP Loan Scheme – Parameters and Key Considerations**

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**Executive Summary**

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On 30 July, Tourism Recovery Ministers (TRM) asked the Treasury to provide more advice on the terms and conditions of a loan scheme under the Strategic Tourism Assets Protection Programme (STAPP). This report sets out key choices for Ministers on the design and implementation of the STAPP loan scheme under the Tourism Recovery Package.

Although some of the key terms and conditions have already been communicated to businesses, there are still a number of them that are yet to be finalised. These need to be considered alongside the policy and implementation objectives of the scheme.

We have provided (in Annex 1), an overview of terms and conditions of existing loan schemes to support this process.

We recommend Ministers indicate their preference for the delivery mechanisms of the STAPP loan scheme. In particular, the choice of the delivery agent, which will impact the key design parameters available to Ministers in implementing the scheme. In general, the quicker the exact parameters of the STAPP loans need to be confirmed and communicated, the less likely it is that complex terms and conditions can be designed.

Our initial advice is that the two potential delivery agents are the Provincial Development Unit (PDU) and Inland Revenue (IR). The PDU would be better able to develop loan conditions that are more complex and require more flexibility around enforcing conditions more actively. IR is best suited for a loan scheme that is light touch on eligibility assessment and requires trust based verification but faces significant capacity constraints.

We understand that the loan scheme would aim to complement the grant when needed and provide a degree of financial support to the chosen tourism firms.

Our initial advice below highlights some of these choices and trade-offs, based on existing firm support policies already in place. The timing and accessibility of the loans are key choices that will influence the uptake and repayment rate of the loans. Discussion on some of these issues will assist Officials design the remainder of the scheme in line with objectives of Ministers.

**IN-CONFIDENCE****Recommended Action**

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We recommend that you:

- a. **refer** this report to Tourism Recovery Ministers ahead of the meeting at 4.30pm on Wednesday 5 August;
- b. **note** the terms and conditions of existing schemes (refer to Annex 1);
- c. **note** the importance of considering the terms and conditions alongside the delivery mechanisms;
- d. **note** the wider implementation, legal and fiscal risk management considerations;
- e. **discuss** with Tourism Recovery Ministers a preferred agency to deliver a STAPP loan scheme, in context of Ministers' preferred timeframe to agree and publically announce further details;
- f. **discuss** with Tourism Recovery Ministers the key policy objectives of the STAPP loan scheme, in context of Ministers' overall strategic objectives for the tourism sector to determine the remaining terms and conditions;
- g. **direct** officials to design and recommend a STAPP loan scheme consistent with Ministerial objectives, for decision at a future TRM meeting.

Jean Le Roux  
**Manager, Transitions, Regions, and Economic Development**

Hon Grant Robertson  
**Minister of Finance**



**IN-CONFIDENCE****Treasury Report: STAPP Loan Scheme – Parameters and Key Considerations****Purpose of Report**

1. At the Tourism Recovery Ministers (TRM) group meeting on 30 July, Ministers requested the Treasury to report back on the 'terms and conditions' of a loan scheme under the Strategic Tourism Assets Protection Programme (STAPP) ahead of the next TRM meeting.
2. This report outlines the key choices remaining around 'terms and conditions' of the loan scheme under the Tourism Recovery Package.

**Background**

3. On 1 August 2020, the Minister of Tourism announced additional details on the Tourism Recovery Package, (the Package). The Package announced included \$230 million in grants and loans for 126 businesses selected through the STAPP over a two year period.
4. In the COVID-19: Response and Recovery Fund Foundation Package, the Government established a \$400 million tagged contingency 'Tourism Sector Recovery Fund' for the purpose of cushioning the impact of COVID-19 on the tourism sector, and to position the sector for recovery.

	\$m – increase/(decrease)				
	2019/20	2020/21	2021/22	2022/23	2023/24 & Outyears
Tourism Sector Recovery Fund – Tagged Operating Contingency	50.000	250.000	65.000	35.000	-

5. The recent announcement on the STAPP will mean the contingency is exhausted, with the majority of the spending to occur in 20/21. This funding will need to be appropriated via a Joint Ministers' paper to contingency Ministers once the phasing has been accurately worked through by MBIE and the Treasury.
6. We understand that 126 businesses have been offered grants of up to \$500,000 and a loan (of a specified amount depending on the size and nature of the application).
7. In relation to the loan, businesses have also been informed of:
  - a. the amount of lending they would be eligible for;
  - b. the term length (5 years); and
  - c. the fact that the loan would be offered at a favourable interest rate.
8. There are still a number of 'terms and conditions' associated with the loan component that are yet to be finalised. The advice below outlines the remaining loan parameters to be determined and the issues that need to be worked through before additional details around the loan component is announced.

**IN-CONFIDENCE****Key choices remaining**

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***Loan parameters that require further consideration***

9. The loan parameters and 'terms and conditions' that still require further consideration are:
  - a. The interest rate
  - b. Repayment terms – i.e. repayment dates and whether there is a grant component should the loan be repaid early.
  - c. Availability – i.e. the date at which the loan will become available and accessible to businesses
  - d. Any conditions or covenants attached to loan
  - e. The ranking of the debt in the creditor hierarchy i.e. debt subordination
  - f. Default conditions i.e. what happens if the business defaults on the loan? Does the Crown have the ability to charge penalty interest or gain any additional rights?
  - g. Interaction with other schemes i.e. does it matter if the business has already accessed another form of Crown support?
10. In narrowing down the choice of remaining parameters above we have assumed that:
  - a. Eligibility considerations are not necessary as businesses have already been informed that they will be able to access the loan if required and the amount of lending they would be eligible for.
  - b. Further due diligence will not be carried out to assess a business' ability to repay the debt.
  - c. Banks would not be engaged to deliver the 126 loans due to the time and cost involved in doing so. Banks make the most sense when we want commercial credit assessment or broad distribution. Neither are relevant here.
11. If any of the assumptions above are not correct, we request Ministers flag this to Officials as soon as possible, to avoid any delays to getting terms and conditions of the loan finalised.

***Implementation considerations***

12. From an implementation perspective, it is not possible to consider the choices presented above independently of the loan delivery mechanisms (i.e. the existing delivery channels within government to administer the loan) as they are strongly correlated.
13. When considering implementation we also considered the full lifecycle of the loan. This means being cognisant of any monitoring requirements, especially if conditions are to be attached to the loan.
14. The Provincial Development Unit (PDU) within the Ministry of Business, Innovation and Employment could be a potential delivery agent. The PDU already has delegated authority to approve and administer loans and has experience providing concessionary loan products. However, their ability to deliver would depend on their current capacity and capability to take on the added workload.
15. IR is best suited for a loan scheme that is light touch on eligibility assessment and requires trust based verification. However, due to COVID-19 pressures, such as the

**IN-CONFIDENCE**

mandate to deliver the Small Business Cashflow Scheme, IR currently faces significant capacity constraints.

16. For larger loans, there may be a need for engagement with the business and its existing secured creditors.
17. Considering the terms and conditions in isolation of implementation considerations is likely to result in delays to delivery or legal risks once the loan is implemented.
18. We recommend Ministers make a choice about the delivery agent and then the delivery agent leads the design of the remaining terms and conditions of the loan scheme. Officials can provide additional advice on the potential delivery agents, if needed.

***Objectives around Crown lending and setting the remaining loan parameters***

19. In setting the remaining loan parameters, Ministers could consider aligning the policy design of the remaining loan parameters to objectives for providing support.
20. Our understanding of the high-level rationale and objectives for the loan scheme is that:
  - a. It would provide a degree of fiscal support to the chosen businesses, hence the loans are concessional, below market rates and require no credit assessments.
  - b. The loan component incentivises the businesses to take some degree of risk.
  - c. Depending on the conditions attached to the loan, there is potential to target support towards a transition to a post COVID economy.
21. Decisions around the remaining terms and conditions should be taken in light of the objectives above or any other objectives TRM may have.
22. The table in Annex 1 provides a snapshot of some of the terms and conditions to be considered and how they have been set for existing firm support schemes established in response to COVID-19. The schemes have different eligibility requirements and processes for assessing eligibility, which has varied implications on implementation timeframes. We have not set out these details as eligibility criteria and process has been predetermined in this instance.
23. As businesses are now out of the immediate crisis, the main issue they face is uncertain revenue pipeline. This could be the case for many years to come (so they are likely to face balance sheet viability issues). The loan should be designed in a way to ensure it doesn't weaken balance sheets further.
24. We recommend Ministers discuss and communicate to Officials the key objectives around supporting businesses with a loan. This will help Officials and the chosen delivery agent design the remainder of the loan scheme.

***Risks***

25. There is a significant amount of policy and operational risk associated with a loan scheme of this nature. Key risks are:
  - a. *Low uptake:* Tourism businesses are facing challenges reliably forecasting and understanding their revenue cycles. This means the uptake of the loans may be low.
  - b. *Fiscal risk:* The Crown may be exposed to significant pressure to relax the loan conditions in the future. From a fiscal perspective there is a potential for a binary outcome – either relatively limited money goes out the door or there are very large losses over time.

**IN-CONFIDENCE**

- c. *The loans are not targeted to those most in need.* The STAPP eligibility criteria looked at individual businesses rather than corporate groups when assessing need for support. There is a risk that some of the corporate groups that take concessional loans are well-resourced and use it as a substitute to shareholder or bank funding.

**Opportunities**

- 26. There are a number of opportunities to attach conditions to the loan to enable the selected businesses to pivot to a context where there is limited international customer base for a couple of years. There is therefore potential to include conditions on:
  - a. Transition to a sustainable way to operate.
  - b. Transition to a model which addresses domestic as well as international customer base.
- 27. Conditions could also be added to the loan parameters in a number of ways:
  - a. There could be a condition precedent – which requires a business to show they meet certain conditions before being able to draw on the loan;
  - b. They could be used as a way to reward businesses for meeting set conditions, for example all businesses can get the loan, but those who also complete the conditions get a grant or interest waived etc;
  - c. They could be used to manage the Crown's interest, for example restricting a business from paying out dividends to its shareholders or taking on new debt without consent from the Crown.

**Wider considerations for developing sector specific loan product**

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**Public Finance Act considerations**

- 28. This advice was written under tight timeframes so we have not had time to receive detailed legal advice but there are a number of Public Finance Act 1989 (PFA) considerations which will need to be worked through. These include:
  - a. The authority (or delegated authority) to issue loans on behalf of the Crown.
  - b. The requirement to work through the “public interest” test under s65L of the PFA.
  - c. The authority to spend under s65P of the PFA.
- 29. Legal issues will need to be worked through in the design of the terms and conditions of any loan agreement to be entered into by successful STAPP applicants.
- 30. Advice on the specific legal risks in relation to the scheme will be considered and included in subsequent advice on this matter and incorporated as necessary into the scheme's design.

**Financial risk management**

- 31. Due to the uncertain future cashflow and revenue projections surrounding the tourism sector, any fair value write down estimates will be challenging to quantify.
- 32. This is an important consideration because the recognition of any concessional element of the loan will reduce the OBEGAL surplus. In essence, there will be an increase in net debt at the point cash is paid to the business and a reduction in net debt when (if) cash is paid back by the firm.

**IN-CONFIDENCE**

33. A prudent fiscal approach would be to assume that the loans are unlikely to be repaid by all the applicants in full, particularly given the uncertainty of the future economic environment and sustained border closures. Officials would recommend being conservative and assuming a higher rate of non-payment, although it is difficult to precisely quantify this figure. Once the loan scheme is operational, the fair value will need to be regularly updated.

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## Annex 1: Summary of terms and conditions for current firm support schemes

Firm support schemes	Business Finance Guarantee (BFG)	Small Business Cashflow Scheme (SBCS)	Research and Development Loan Scheme
Interest rate	Variable, determined by bank	Interest free if the loan is repaid in full within the first year, otherwise 3% p/a interest from the start of the loan	Interest free if the loan is repaid in full within the first year, otherwise 3% p/a interest from the start of the loan
Repayment	Variable, determined by bank	Repayments not required for first 24 months	Repayments not required for the first three years
Availability	Ending 30 September 2020 (likely to be extended)	Ending 31 December 2020	Available only for the 2020/21 fiscal year as a one-off lump-sum payment.  Applications end 31 March 2021, however funding is expected to be exhausted in September 2020.
Conditions/covenants	Limited to firms with revenue up to \$80m (soon to be increased to \$200m).  Only up to 5% of facility amount can be used for capital investments (this restriction is to be removed soon).  The Borrower must confirm to the Bank that it is requesting the Supported Loan for the purpose of obtaining liquidity and bridging finance while it deals with the disruption to its business caused by COVID-19 (soon to be widened).	They must declare that they satisfy the eligibility criteria, including that their business existed before 1 April 2020, has experienced a decline of 30% revenue, is viable and ongoing, that the loan is for operating costs and the loan cannot be passed to the shareholder.	The loan may only be spent on R&D activity, assessed by Callaghan Innovation on the basis of R&D grants criteria.  To be eligible, a business must show that their ability to fund R&D activity has been impacted by COVID-19 (such as through a 30% drop in revenue or expected sources of funding). Eligible firms must also have had an eligible R&D programme in place before 26 March 2020 and plan to spend at least \$50,000 in FY20/21 on R&D.
Ranking of debt/subordination	Subordinated	Subordinated	Subordinated
Delivery mechanism	Banks	Inland Revenue	Callaghan Innovation
Loan limit	\$500k (likely to be revised up to \$5m)	\$10,000 + \$1,800 per FTE up to \$100k	The maximum of either \$400k or 85% of a firm's R&D expenditure
Loan period	Max 3 years (likely to be revised up to 5 years)	Max 5 years	Max 10 years
Repayment	Variable, determined by bank	Repayments not required for first 24 months	Repayments not required for the first three years

## COMMERCIAL-IN-CONFIDENCE

**Treasury Report: Waimea Dam**

<b>Date:</b>	4 August 2020	<b>Report No:</b>	T2020/2610
		<b>File Number:</b>	CM-1-3-116-1 (Planning and Monitoring)

**Action sought**

	<b>Action sought</b>	<b>Deadline</b>
<b>Minister of Finance</b> (Hon Grant Robertson)	<b>Agree</b> to the recommendations	18 August 2020
<b>Minister of Agriculture</b> (Hon Damien O'Connor)	<b>Agree</b> to the recommendations and <b>sign</b> the attached letter to the Chair	18 August 2020

**Contact for telephone discussion (if required)**

<b>Name</b>	<b>Position</b>	<b>Telephone</b>	<b>1st Contact</b>
Amanda Wilson	Analyst, Commercial Performance	s9(2)(k)	✓
Juston Anderson	Acting Manager, Commercial Performance		

**Minister's Office actions (if required)****Return** the signed report to the Treasury**Send** the attached letter to the Chair of Crown Irrigation Investments Limited (Minister O'Connor's office only)

Note any  
feedback on  
the quality of  
the report

**Enclosure:** Yes (attached)



**COMMERCIAL-IN-CONFIDENCE****Treasury Report: Waimea Dam**

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**Purpose of Report**

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1. The Treasury's previous briefing on this matter (T2020/1900 refers) sought shareholding Ministers' agreement on the quantum of additional funding to be provided to the Tasman District Council (TDC) for cost escalations at Waimea Dam.
2. This report provides shareholding Ministers with additional information on the preferential rights of the Waimea Irrigators, as requested by the Minister of Agriculture, and the funding mechanisms by which support could be provided to the TDC. It is recommended that this briefing be read in conjunction with T2020/1900.
3. Attached to this report is a letter to the Chair of Crown Irrigation Investments Limited (CIIL), drafted based on the Treasury's recommended option. This letter supersedes the letter provided in T2020/1900. The Treasury can provide an updated letter if required.

**Background**

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4. In April 2020, CIIL was repaid, in full, \$53.9m from the Central Plains Water Limited (CPWL) refinancing process.
5. In May 2020, shareholding Ministers agreed (T2020/1346 refers) for CIIL to investigate options for providing further support to the Waimea Dam project s9(2)(j) to help with recent cost overruns, and requested that the Chair report back to shareholding Ministers with a proposal for approval.
6. In June 2020, the Treasury provided a report to Ministers (T2020/1900 refers) regarding CIIL's proposal and options for additional support. In that report, it was recommended that shareholding Ministers agreed for CIIL to provide \$13m to the TDC to cover COVID-19 related costs only. CIIL had recommended providing an additional \$18m, which would contribute to some pre-COVID-19 costs as well, related to a known risk, which the TDC is legally liable for. s9(2)(j)
7. We recommended that the potential additional funding for the Waimea dam be provided through a zero percent interest rate loan, which is consistent with how CIIL structures its current loan agreements.

**Preferential rights**

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8. Waimea Irrigators Limited (WIL) was formed in 2016 to complete the Waimea Dam project in conjunction with TDC.
9. Both parties agreed to contribute capital to the project. However just before construction commenced, the estimated cost of the project increased. Both WIL and TDC agreed to provide additional capital. WIL contributed \$10m and the balance (\$11m) was contributed by TDC.



**COMMERCIAL-IN-CONFIDENCE**


10. At this time, WIL had already raised its baseline capital from its water users and the only asset WIL held was unsold water rights. WIL tried to sell these rights to third party investors but was unsuccessful. It then engaged with larger horticulturists, as they had the most to lose without construction of the dam, and sought the additional capital of \$10m. In exchange for this additional capital, the horticulturists now hold the excess WIL water rights.
11. As part of this process, Century Water Limited (CWL), was formed and the larger horticulturists subscribed to 2,000 convertible notes in CWL, which were then used to subscribe for 2,000 Convertible Preference Shares (CPS) in WIL.

12. s9(2)(b)(ii)



13. This arrangement effectively means that over time, a portion of WIL's shares will convert to water rights which the holders can on-sell. However, if the holder is unable to sell the rights, it is still required to pay for the water charges, meaning that there is no decrease in revenue. This arrangement actually benefits CIIL, the project and other stakeholders, as the larger irrigators are effectively underwriting a level of uptake and therefore increasing the probability that a successful refinancing of the CIIL facility can be achieved at or prior to maturity.
14. WWL is a Council Controlled Organisation created to carry out the construction and operation of Waimea Dam. TDC and WIL are the shareholders of WWL and under the shareholders agreement TDC has 51% or greater voting rights. To ensure that WIL was protected as a minority shareholder, the shareholders agreement contained a clause preventing the TDC from amending the water rights and construction process, or setting the water charges and budget for WWL, without consent from WIL.

15. s9(2)(g)(i)



### Funding forms

#### *Loan (the Treasury's recommended option)*

16. CIIL currently has two loans in relation to Waimea Dam, \$25m to WWL and \$10m to the TDC.
17. The current TDC facility is an equal first ranking facility, ranking in line with the LGFA funding, bank financing and backed by debenture stock. The facility terms are based on a combination of bank debt terms for local authority financing as well as LGFA

**COMMERCIAL-IN-CONFIDENCE**

standard terms. However, CIIL's financing is based on 0% interest compared with the LGFA's standard 1.8% - 2.0%.

18. To make drawdowns, the TDC must meet certain conditions and provide evidence that its representations and warranties are true and correct and that there have been no events of default.
19. WIL and the TDC are also required to contribute capital in various tranches over the life of the project; if this is not carried out, CIIL can withhold its funding.
20. CIIL has recommended that the loan could be structured in three parts [REDACTED] s9(2)(i). This is consistent with how it structures its other loan agreements. By structuring the loans in three parts, it is easy to remove a portion should shareholding Ministers not wish to contribute the full amount recommended by CIIL.
21. CIIL and the Treasury's preferred approach to the provision of additional funding is through a zero-interest loan on the same terms as the existing facility noted above. This is because CIIL already has a loan agreement in place with the TDC, therefore, amending its current facilities to include the additional support will ensure that the process, drawdown methods and conditions are simple and easy to implement. By amending the existing agreement, all of the incentives and conditions around the release of funds will also already be in place.

22. s9(2)(ba)(i) & s9(2)(g)(i) [REDACTED]

23. A loan is the quickest mechanism to provide additional funding to the TDC and the existing agreements could be amended straight away.
24. The Treasury recommends that a maximum of \$13m be provided to contribute to the COVID-19 related costs only. s9(2)(g)(i) [REDACTED]  
s9(2)(g)(i) [REDACTED]

*Grant (not recommended by the Treasury)*

25. During a meeting between the Minister of Agriculture and Treasury officials on 27 July 2020, the Minister expressed interest in the option of providing grant funding rather than a loan.
26. CIIL providing a grant to TDC would raise a number of issues.
27. Should shareholding Ministers wish to provide a grant, you could:
  - a decline to approve additional funding for Waimea Dam through CIIL;
  - b note in a letter to the Chair of CIIL this decision and say that you would appreciate the additional [REDACTED] be returned by way of a dividend; and s9(2)(j)
  - c provide a direct grant to the TDC from the Crown.
28. This would require a Cabinet decision and the establishment of a new appropriation.

**COMMERCIAL-IN-CONFIDENCE**

29. Under CIIL's constitution, its purpose is to enable the development and construction of off-farm regional irrigation infrastructure where it identifies irrigation scheme proposals that have the potential to generate long-term economic benefits from irrigation for New Zealand, primarily by:

- a co-investing in irrigation schemes;
- b providing loan funding to local authorities to enable them to support the construction of water storage and/or distribution infrastructure associated with irrigation schemes;
- c providing grants to irrigation schemes in development;
- d applying commercial expertise and leadership to irrigation schemes.

30. s9(2)(ba)(i) & s9(2)(g)(i)

31. To date, CIIL has not provided any grants for the construction of irrigation schemes. Providing grant funding would require CIIL to engage external legal advice to draft and agree grant agreements.

32. The Treasury has sought a legal opinion on the CIIL constitution.

s9(2)(h)

33. s9(2)(g)(i)

34. s9(2)(h)

Under the Companies Act 1993, the business and affairs of a company must (subject to the Company's constitution) be managed by, or under direction or supervision of, the board of the company and directors must act in what it deems to be in the best interests of the company. As CIIL is a Crown entity company, shareholding Ministers are unable in the normal course to give directions to the board.

s9(2)(h)

35. s9(2)(g)(i)

**COMMERCIAL-IN-CONFIDENCE**

36. The Treasury does not recommend that shareholding Ministers expect CIIL provide funding to TDC by way of a grant.

s9(2)(g)(i)

As previously advised, providing a loan (as the CIIL board proposes) rather than a grant ensures that the Crown is not taking responsibility for risks already accepted by the TDC. Amending the existing loan agreement is the quickest way to provide support to the TDC.

**Risks**

37. Should Ministers wish to progress with the grant option, this would be inconsistent with the approach taken by CIIL for other schemes currently being developed. However, we understand that grants are being considered for other forms of government funding as part of the COVID-19 relief such as the three waters projects and some shovel ready projects. Should Ministers wish to pursue the grant option s9(2)(g)(i) outside of CIIL, we recommend that only the direct COVID-19 costs (\$13m) be provided to try to mitigate these perception risks.

38. s9(2)(g)(i)

**Recommended Action**

We recommend that you:

- a **note** that the current Convertible Preference Shares are set and will not change as a result of potential additional support.

**EITHER**

- b **agree** for CIIL to provide \$13m to the Tasman District Council (TDC) to cover COVID-19 related costs and acceleration costs only at Waimea Dam (Treasury's preferred option), noting that the CIIL Board will decide on the most appropriate form of providing that funding, in line with its obligations set out under the Companies Act 1993 (which is likely to be via a loan)

*Agree/disagree.*  
Minister of Finance

*Agree/disagree.*  
Minister of Agriculture

**COMMERCIAL-IN-CONFIDENCE****OR**


- c **agree** for CIIL to provide \$18m to the TDC to cover some pre-COVID-19 cost overruns, COVID-19 related costs and acceleration costs at Waimea Dam (CIIL's preferred option), noting that the CIIL Board will decide on the most appropriate form of providing that funding, in line with its obligations set out under the Companies Act 1993 (which is likely to be via a loan)

*Agree/disagree.*  
Minister of Finance

*Agree/disagree.*  
Minister of Agriculture

**AND**

d s9(2)(j)



*Agree/disagree.*  
Minister of Finance

*Agree/disagree.*  
Minister of Agriculture

**AND**

- e **agree** for the Minister of Agriculture to sign the attached letter to the Chair of CIIL, drafted based on recommendation b (note that an updated letter can be provided if Ministers prefer recommendation c).

*Agree/disagree.*  
Minister of Finance

*Agree/disagree.*  
Minister of Agriculture

Juston Anderson  
**Acting Manager, Commercial Performance**

Hon Grant Robertson  
**Minister of Finance**

Hon Damien O'Connor  
**Minister of Agriculture**

Linda Robertson  
Chair  
Crown Irrigation Investments Limited

Via email: s9(2)(k)

Dear Ms Robertson

### **STATEMENT OF PERFORMANCE EXPECTATIONS AND ADDITIONAL FUNDING PROPOSAL**

Thank you for providing shareholding Ministers with a response to our comments on the Statement of Performance Expectations (SPE) and the additional funding proposal for our consideration.

On behalf of shareholding Ministers, I would like to thank the board and management for working with the Treasury to address our comments on Crown Irrigation Investment Limited's (CIIL's) draft SPE. We note that CIIL has provided further detail on its key performance indicators, agreed to commence looking at a longer-term loan management programme and potential wind-down options, and has returned \$38.8m as a dividend. We appreciate CIIL addressing these matters so quickly.

We note that CIIL has recommended providing \$18m s9(2)(j) to the Tasman District Council to contribute to some pre-COVID-19 costs as well as COVID-19-related costs and acceleration costs at Waimea Dam. We also appreciate that CIIL has existing funding agreements in place and is therefore well placed to provide additional funding quickly and easily.

We are conscious of the Crown, via CIIL, not taking on other parties' risks through the provision of additional funding and appreciate that this is also at the forefront of CIIL's minds. Therefore, we approve CIIL to provide up to \$13m towards COVID-19-related costs and acceleration costs only. We are not supportive of CIIL contributing towards pre-COVID-19 cost overruns at this stage. We are comfortable with CIIL's recommendation to not provide funding towards an additional hydro generation unit.

The mechanism by which funding is provided is a matter for the Board to consider and take decisions on based on the best interests of the company. We note that your preference is for a loan to be provided on the same terms as your existing agreements and we appreciate you working to implement the best method as soon as possible.

We expect that CIIL continues to manage its investments in line with best practice guidelines and that the terms of any additional loans provided do not hinder CIIL's ability to consider longer-term management and wind-down options in a timely manner.

s9(2)(j)



Yours sincerely

Hon Damien O'Connor  
**Minister of Agriculture**  
*on behalf of shareholding Ministers*

cc: Murray Gribben, Chief Executive Officer, Crown Irrigation Investments Limited,  
s9(2)(k)



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OFFICIAL INFORMATION ACT

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TE TAI ŌHANGA  
THE TREASURY**Treasury Report: Initial Advice on a Hospitality Sector Support Package**

<b>Date:</b>	20 August 2020	<b>Report No:</b>	T2020/2905
		<b>File Number:</b>	SH-11-1

**Action sought**

	<b>Action sought</b>	<b>Deadline</b>
Hon Grant Robertson <b>Minister of Finance</b>	<b>Indicate</b> if you would like further analysis and advice on any of the options raised in this briefing.	None.

**Contact for telephone discussion (if required)**

<b>Name</b>	<b>Position</b>	<b>Telephone</b>	<b>1st Contact</b>
Udayan Mukherjee	Senior Analyst, Transitions Regions and Economic Development	s9(2)(k)	s9(2)(g)(ii) ✓
Jean Le Roux	Manager, Transitions Regions and Economic Development		

**Minister's Office actions (if required)****Return** the signed report to Treasury.**Refer** to the Ministers of Tourism, Economic Development, and Small Business/Revenue.

Note any feedback on the quality of the report

**Enclosure:** No



## IN-CONFIDENCE

## Treasury Report: Initial Advice on a Hospitality Sector Support Package

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### Executive Summary

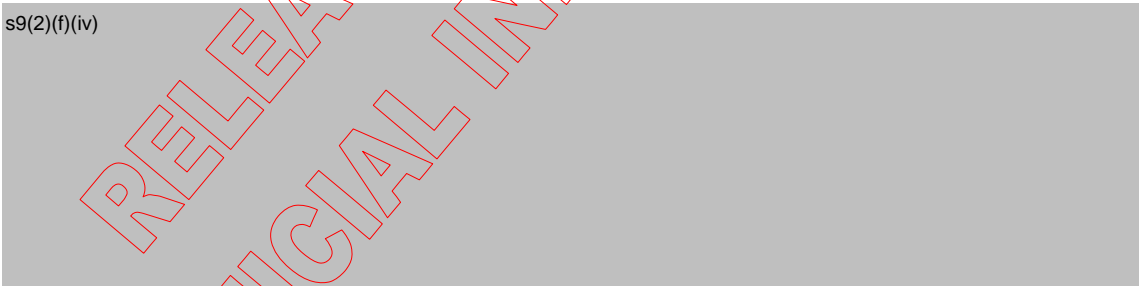
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The hospitality sector has faced an acute and sustained shock as a result of COVID-19. This is due to the effects of the border closure and variable Alert Levels on consumer demand as well as the burdens of additional regulatory requirements placed on the sector as part of Government's public health strategy. As there is still considerable uncertainty about the health and economic scenario for the next 12-18 months, the hospitality sector will continue to face stress.

The existing broad-based economic support mechanisms should remain a very important part of the Government's response for the hospitality sector, in particular the wage subsidy and other policies that support affected workers directly. However, some of the existing support mechanisms that rely on firms taking on more debt (such as the Small Business Cashflow Scheme) may not be suitable for hospitality businesses. Many businesses will already be carrying a lot of debt, and going forward will have a constrained ability to manage further debt with confidence.

The hospitality sector is large, and not easy to define. There are challenges in drawing an appropriate 'boundary' around the sector to target any support. In addition, some of the challenges faced by the sector are not unique to hospitality, so any support package will likely lead to similar packages being demanded of the Government from other sectors in the economy. This reinforces the premise that well designed broad-based economic support mechanisms may be preferable, although over time they will need to evolve to be sustainable and to be more strongly focused on transition for acutely affected sectors like hospitality.

s9(2)(f)(iv)



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**Recommended Action**

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We recommend that you:

- a. **note** that the Treasury's preference is for broad-based business support measures rather than sector-specific packages;
- b. **note** that the Treasury would recommend that the objective of any hospitality sector package should be helping to adjust to a new long-term reality of cycling between Alert Levels 1 and 2, rather than providing temporary relief on the assumption of quickly and permanently returning to Level 1;

c. s9(2)(f)(iv)

- d. **indicate** if you would like the Treasury, in conjunction with the relevant agencies, to provide further analysis and advice on any of the following options:

s9(2)(f)(iv)

Tax credits Yes / No

Further loan scheme Yes / No

Indirect Financial Support Yes / No

Regulatory policy options Yes / No

- e. **consider** any decisions to develop sector-specific initiatives alongside decisions on other broad-based mechanisms designed to provide sustainable forms of support to business;

- f. **refer** this report to the Ministers of Tourism, Economic Development, and Small Business/Revenue;

*Refer / not referred.*

**Manager, Transitions, Regions, and Economic Development**

Hon Grant Robertson  
**Minister of Finance**

**IN-CONFIDENCE****Treasury Report: Initial Advice on a Hospitality Sector Support Package**

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**Broader policy context and purpose of this report**

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1. This report responds to your request for initial advice on whether and how to design an economic support package for the hospitality sector. We understand that you are particularly concerned that the ongoing uncertainty about the public health response may have an acute impact on this sector, especially if the country is at Alert Level 2 for periods of time over the next 12-18 months.
2. At the time of writing, you are considering advice on changes to expand support offered by a key broad-based tool in the business support landscape - the Small Business Cashflow (Loan) Scheme (SBCS). The temporary expansion of the Wage Subsidy and broadened access to the Leave Support Scheme are also about to go live. Officials are working on advice on moving towards a more sustainable model of the Wage Subsidy.
3. In addition, the public health landscape is changing daily, and a number of scenarios relating to transmission of the virus may play out in the coming weeks. For example, it may be the case that Ministers decide to extend existing forms of broad-based support on a temporary basis in the event of additional resurgences in the coming weeks.
4. This reinforces that it is important to clarify the objectives of any sector-specific support for hospitality against this context. This will assist officials in designing any policy response in a way that complements broader support schemes.
5. With that in mind, the report sets out:
  - a. An overview of the hospitality sector, some definitional issues, and the nature of the economic shock it is facing;
  - b. The Treasury's analysis of the potential objectives of a sector-specific package;
  - c. Initial advice on what a support package could include, if you were interested in pursuing this option further.
6. This briefing has been drafted under tight timeframes. We have consulted with IR and MBIE on this report, but would need to work more closely with them on any further in-depth analysis and policy design.

**The hospitality sector: definitions and economic context**

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***What is the hospitality sector?***

7. There is no single definition of the hospitality sector. However, there are two main options for thinking about the boundaries of the sector:
  - a. Definition 1: Food (and beverage) services; which includes cafes and restaurants; pubs, bars and nightclubs; fast food and takeaway food services; and catering services in New Zealand;

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- b. Definition 2: Accommodation and food (and beverage) services; which includes the services mentioned above as well as accommodation providers such as hotels, motels, backpackers and holiday parks.
8. Beyond these broad definition options, there are further complexities in thinking about the boundaries of the sector. For example, some businesses provide food and drink without this being their central business model (e.g. cinemas or cafes within retail stores) while other businesses provide food and drink without having physical premises for the public (e.g. catering). To address these issues, the hospitality sector could be defined as either only including businesses whose primary function is hospitality, or also including hospitality business units within non hospitality businesses.
9. Definitions from the COVID-19 Public Health Response (Alert Levels 3 and 2) Order 2020 (COVID Order) could also be used to define the scope the sector. Clause 18 of the COVID Order outlines the requirements for businesses where food and drink is sold or provided for consumption in that workplace, such as cafes and restaurants. Using this definition would mean that food and beverage services are within scope but accommodation services are not.

***What do we know about the economic significance of the hospitality sector? <sup>1</sup>***

10. The table below includes key data about the economic significance and performance of the hospitality sector under the two definitions outlined above. We have not been able to source some of the statistics for the narrower definition of the hospitality sector (Definition 1) in the time available.
11. The food (and beverage) services sector (i.e. Definition 1) makes up a very large proportion of the wider accommodation and food services sector (i.e. Definition 2). For instance, it contributes to just under 80 per cent of jobs in the sector. The hospitality sector under the wider definition contributes about 2.3 per cent to GDP.

***Table 1: Aggregate statistics on the hospitality sector under two definitions***

	<i>Definition 1 - Food (and beverage) services</i>	<i>Definition 2 – Accommodation and food (and beverage) services</i>
Employment share	5.86%	7.39%
Number of people employed	133,900	168,800
Number of businesses	17,235	22,845
Share of GDP	N/A	2.34%
Industry size by revenue	N/A	\$6.36 billion
Average weekly earnings	N/A	\$563 (lowest of any industry)

<sup>1</sup> This section is based on internal analysis of source data held by Stats NZ, and based on 2018 and 2019 data.

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12. The table below provides a breakdown of employment and revenues in the broader hospitality sector (under the broader Definition 2 above).

*Table 2: Description of firms within the hospitality sector*

Number of employees	# of firms	% of firms	Total employees	Median sales revenue for a firm in this band
0	8,706	38.1	0	Not available
1-5	6,621	29	18,600	\$223,000
6 - 9	2,895	12.7	21,200	\$502,000
10 - 19	2,850	12.5	38,100	\$884,000
20-50	1,404	6.1	39,600	\$2,150,000
50-99	246	1.1	16,600	
100+	120	0.5	34,700	\$14,916,000
<b>Total</b>	<b>22,845</b>	<b>100</b>	<b>168,800</b>	<b>\$380,000</b>

13. The hospitality sector has a young workforce – around 56 per cent of workers are under 29 (using Definition 2), more than any other industry. About 60 per cent of the hospitality workforce are female. The majority of hospitality workers are part-time or casual staff. Asian workers make up a disproportionately large share of the hospitality workforce – about 30 per cent. Māori and Pasifika make up about 14 per cent and 6 per cent of the sector's workforce respectively; this is roughly proportionate to the population of these groups.
14. The sector has among the highest worker turnover rates of any sector, and also has the highest proportion of jobs held by temporary migrants, at just over 20 per cent in 2016. The average annual rate of hospitality firm births and deaths over ten years (12.4 and 10.1 per cent respectively) is broadly in line with the average for other sectors (11.3 and 10.1 per cent).

***What do we know about the economic impact of COVID on hospitality?***

15. During the first wave of COVID-19, the Treasury estimated that economic activity in the accommodation and food services sector would be at 20 per cent of normal levels at Alert Levels 3 and 4, and 60 per cent of normal levels at Alert Level 2. According to our estimates, this made hospitality the second most impacted sector at Alert Level 4 (behind construction) and the most impacted sector at Alert Levels 2 and 3.
16. This is broadly borne out in the data available to date. Electronic card spending on hospitality was down 95 per cent on the previous year in April (almost entirely Alert Level 4); down 40 per cent in May (half at Alert Level 3, half at Alert Level 2), down 7 per cent in June (mostly Alert Level 1), and up 6 per cent in July. Compared to overall card spending data, hospitality was more severely impacted than other sectors during April and May, and bounced back slightly less strongly in June and July.
17. Another indicator of the impact of COVID-19 on the hospitality sector is in take-up of the Wage Subsidy Extension (WSX) and the Small Business Cashflow Scheme (SBCS). As at 10 August 2020, the take-up rate of the WSX in the accommodation and food services sector was 46 per cent, second only to the arts and recreation sector.

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Similarly, as at 31 July 2020, the accommodation and food services sector had the second highest take-up rate of the SBCS of any industry – at just under 45 per cent.

### Objectives of a hospitality sector support package

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18. As we understand it, the objective of a sector support package at this point is not to help businesses in the acute phase of the public health response to COVID-19 (i.e. alert levels 3 and 4), but to help them adjust to the likely reality that they will be cycling between levels 1 and 2 for the next year or so, until a vaccine is widely distributed in New Zealand.
19. For some businesses, that are 'vulnerable but viable', this may include giving them some temporary support in order to develop a sustainable business model in circumstances very different from those in which most businesses were developed.
20. However, the reality is that many businesses will fail no matter what support the Government is able to give. Depending on the mechanism of support, businesses may be able to close well (i.e. settling debts) or hibernate, which will give them a better chance of restarting once the economic situation improves. Barriers to entry are low, so recovery may be strong once the risk diminishes.
21. If non-viable businesses receive ongoing support then any support package may have a significant fiscal impact for the Government, while making very little difference to outcomes for the sector. The temporary support measures the Government has already had in place, such as the Wage Subsidy Scheme, have given time for the sector to start to adjust to the changed landscape, but this cannot continue indefinitely.

#### ***The case for a sector-specific support package***

22. Hospitality firms have been particularly hard hit by alert levels restricting people leaving home, moving around and meeting. This includes the impact on catering services, dine in services (such as cafes and restaurants) and other social gathering areas (such as pubs and bars).
23. Many of these firms have low cash reserves and very tight margins with fixed rental costs being particularly significant. Hospitality NZ also notes that the very rapid shift to level 3 in Auckland resulted in many operators having to discard perishables they had already ordered and paid for.
24. Clause 18 of the COVID Order require food and drink services to abide by additional public health measures, including the requirement that patrons are seated, separate and served by a single server (the '3 S's') under level 2, as well as having a 100-person limit. Adhering to these regulations results in compliance costs and reduction in revenue to affected businesses, that is disproportionate compared to other service industries.
25. As margins are tight, the hospitality sector cannot easily absorb the additional costs of business transformation, such as increased use of delivery platforms (e.g. UberEats, MenuLog) which take a large percentage of revenue (joining costs, commissions, plus other costs like takeaway food packaging). For some, transformation is impractical given the nature of the business.
26. The hospitality industry employs a large proportion of the overall workforce, and related downturns therefore also impact on a significant number of people. As other industries have also suffered from the impacts of the COVID-19 response redeployment of this workforce to similar work is challenging. The statistics presented in the previous section indicate that the hospitality workforce is relatively vulnerable.



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27. Hospitality spending is relatively discretionary, and is one of the most likely to be impacted by reduced consumer spending in an economic downturn. For many communities, coming together in social spaces to share food and drink is important to wellbeing. Not all such activity can shift to private homes, so loss of hospitality venues may increase isolation for some.

***Risks and downsides of a sector-specific package***

28. While hospitality has been hard hit, so have a lot of other sectors. To provide a hospitality sector support package will strengthen the case and demand for further sector support packages – such as for retail and personal services. Ideally these should all be captured by broad-based measures, rather than responding to sectors individually.
29. As noted above, there are definitional issues with the hospitality sector, e.g. whether accommodation is included, and how to treat hospitality operators within other businesses (e.g. garden centre cafes). This makes it hard to estimate exactly how large the impacts, and costs, of a support package would be, and harder to maintain principled boundaries that justify intervention in some sectors but not others.
30. Compensating for the impact of the new public health measures could set a precedent, with every business impacted by the public health response to COVID-19 potentially able to make a case for compensation.
31. Not all hospitality industries have been equally impacted. For example, businesses in tourism hotspots have had a more sustained downturn, whereas those in CBDs depend more on employees returning to their workplaces.
32. Hospitality businesses tend to be low contributors to GDP and low-wage employers. The Government should be cautious about committing its scarce resources to firms that are unlikely to significantly support New Zealand's economic recovery.
33. Businesses will fail in this period, but are likely to be created again in better conditions. Hospitality firms are not usually 'anchor' businesses (like some tourism attractions) where their loss would lead to a significant local impact. Where there is a market, they can and do emerge nimbly to supply it.

**Potential options and eligibility criteria for a support package**

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34. There are a range of direct and indirect options for providing support to the hospitality sector, however defined.
35. As discussed above, our initial recommendation is that the policy objective for supporting hospitality should be to support them to adjust to a new potential long-term reality of cycling between Alert Levels 1 and 2. Clarifying the policy objective will assist officials in designing more specific interventions under any of the options below.
36. For comparison, Annex 1 provides a brief summary of the hospitality support packages that have been put in place in other international jurisdictions.

***Options for direct financial support***

s9(2)(f)(iv)

37. s9(2)(f)(iv)

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s9(2)(f)(iv)

38. s9(2)(f)(iv)

39. s9(2)(f)(iv)

**Loans**

40. Alternatively, support could be provided in the form of a sector-specific loan scheme. As at 31 July 2020, the accommodation and food services sector had the second highest take-up rate of the SBCS of any industry – at just under 45 per cent. This indicates that there could be demand for a hospitality-specific loan scheme. However, options to amend to the SBCS, including increasing borrowing limits for eligible firms are currently being considered.
41. Given this as well as the administrative cost associated with establishing an additional loan scheme and the fact that many hospitality businesses will be approaching their limit in terms of the amount of debt they are willing or able to take on, we recommend focusing on amendments to the SBCS rather than a new bespoke scheme. Further policy and legal advice would be needed on whether a sector-specific loan scheme would fit within the provisions of the current tax legislation.

**Tax credits**

42. Another option is the introduction of hospitality-specific tax changes or tax credits. However, tax credits are unlikely to be the simplest or most timely mechanism for delivering financial support to hospitality businesses. Furthermore, if tax credits are not refundable, they would provide less financial assistance than cash grants or loans, as they would only assist to the extent that the businesses continues to be profitable (although this could help ensure assistance is targeted towards more viable firms).

***Eligibility criteria***

43. The eligibility criteria of the support mechanism could be designed in many ways depending on the aims of the policy and intended funding level. We recommend that the criteria be:
- a. Clear and easy to understand for the businesses who will access the support;
  - b. Based on verifiable data about a business in order to target the support.



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44. Criteria will be more effective if they are few, based on clear (ideally pre-existing) sector definitions, and similar to existing support programmes (such as the SBCS). Explicitly addressing edge cases and exceptions will also be helpful.
45. In addition to clarifying the overall boundaries of the scheme, two key questions to address are whether (and how) support should be targeted based on firm size, and whether to target support to the firms most affected by COVID-19.

How could support be targeted by firm size?

46. A flat level of support for all businesses would be the simplest and least costly to implement. However, we recommend support be scalable as a fixed level would be either provide more support than necessary for small firms (if set at a high level) or be insufficient for medium and large businesses (if set low).
47. If targeted by firm size, a base rate may be appropriate with ascending support levels depending on one or more of the following criteria:
  - a. Number of employees
  - b. Annual revenue
  - c. Operational costs
  - d. Rateable value
  - e. Seating capacity
  - f. Number of premises
48. Both the SBCS and the Wage Subsidy Scheme have used employee count as key metrics for determining support. This may therefore be the simplest approach to implement and would be familiar to most firms.
49. If the focus of the support is non-wage costs, it may be better to target support based on non-FTE measures, such as a firm's revenue or expenditure base. Non-wage costs may be the most appropriate focus, given that many hospitality businesses are already eligible for the Wage Subsidy Scheme.

How should support be targeted to the most affected businesses?

50. If the intent is to target businesses most severely impacted by COVID-19 and the related economic restrictions, criteria could include:
  - a. Reduction in year-on-year revenue over a particular period by a certain percentage;
  - b. Firms that meet a viability test – e.g. a reduction in income of more than 40% year-on-year during initial period at Alert Level 3, but then had a reduction in revenue of no more than 20% year on year in July. A viability test such as this has previously been considered as part of work on amendments to the Wage Subsidy Scheme, but further work would be needed to determine the feasibility and desirability of such a test.
  - c. Demonstration of some other COVID-19-related cost, such as compliance costs imposed under the Alert Levels.
51. You may wish to consider a similar test to the two-week extension of the Wage Subsidy Scheme, as this is familiar to businesses and would be straight-forward to implement, though the exact level of revenue drop may need to be set according to up-to-date statistics from the hospitality sector.

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52. You may wish to exclude firms that have received significant economic support already. This could be through a cap on combined total support from this and other programmes, such as the Wage Subsidy Scheme and the Strategic Tourism Assets Protection Programme (STAPP).
53. You may further wish to consider excluding businesses that did not exist prior to 1 April 2020 (or some other date representing the beginning of significant economic restrictions), dormant businesses, or businesses that are insolvent.

***Options for indirect financial support***

54. There are also options to provide more individual financial support to hospitality businesses, including providing vouchers to consumers or subsidising and/or waiving certain costs.

s9(2)(f)(iv)

55. s9(2)(f)(iv)

56. s9(2)(f)(iv)

57. s9(2)(f)(iv)

**Supporting business model adaptation**

58. A less direct intervention would be to support hospitality businesses to adapt their business model – such as to pivot to home deliveries. Home deliveries appear to generally not be profitable for individual businesses under an in-house delivery model, making the main alternative use of a delivery platform such as UberEats or deliveroo. However, one barrier to the (profitable) use of these services is the high service fees paid by hospitality outlets these platforms, which we understand to be in the region of 20-30 per cent.
59. There is therefore an option to address these barriers to use by covering a portion (or all) of the fees charged by such platforms. This is effectively a conditional grant as described above. As with grants tied to other costs, a risk in this option is that the benefit is captured by the delivery platform – particularly if it led to the platform increasing its fees. As such, such an intervention could be complemented by requiring platforms to cap fees at current levels for the duration of the intervention.
60. Business model adaptation could also be enabled in less prescriptive ways. For example, a more traditional form of intervention to support business model adaption would be to provide business development advice and support. \$40 million has already been provided to extend business support provided through the Regional Business

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Partners Scheme, and we understand that around \$32 million worth of \$5,000 grants per business are still available, including to businesses in the hospitality sector. However, advisors within this scheme may not have hospitality sector expertise. So it might be possible to expand or modify this scheme to specifically focus on challenges and opportunities faced by those in the hospitality sector.

**Fee relief**

61. Another option would be for government to waive (or cover) certain fees associated with regulatory regimes faced by the hospitality sector. For example, under the Sale and Supply of Alcohol Act 2012, licensed venues have to pay annual fees of between \$140 and \$1,250 (unless other fees are set by a territorial authority). The government could cover these fees for a specified period of time. We have not consulted with the Ministry of Justice or local government on such an option.

***Regulatory policy options to support the sector***

62. There may also be regulatory changes that could be made to reduce costs faced by the sector.

63. s9(2)(f)(iv)

64. s9(2)(f)(iv)

65. s9(2)(f)(iv), hospitality establishments also need to comply with other regulatory regimes, such as liquor licensing and food safety. We have not explored whether there are sensible options to reduce the regulatory burden under these regimes. However, we could work with the Ministry of Justice and the Ministry for Primary Industries to look into these options at your request.

**IN-CONFIDENCE****Annex 1: Hospitality Support Programmes in Other Countries**

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66. The Australian state of Victoria has two grant schemes for hospitality businesses available for any restaurant, cafe, pub, bar, club, reception centre, coffee and dessert outlet, or takeaway food venue with food service that meet a number of criteria:
- a. The CBD Small Hospitality Grant is for businesses in Melbourne's central business district (CBD) that already received a grant from the Business Support Fund – Expansion programme and have seating capacity of 11 or more seats. It provides \$5,000 for firms with 11 to 100 seats and \$15,000 for firms with 101 seats or more.
  - b. The Hospitality Business Grant Program is for firms that have an annual payroll of between \$3 million and \$10 million in 2019/20. It provides \$25,000 per business, plus an addition \$5,000 for each additional venue (up to \$20,000 for four venues), and additional \$20,000 if the business is located in the CBD.
67. The UK Government's Retail, Hospitality and Leisure Grant Fund provides grants to properties that are wholly or mainly being used as a hospitality, retail, or leisure venue. Examples include shops, restaurants, cafes, bars, cinemas, music venues, sports clubs, gyms, hotels and self-catering accommodation. Businesses receive a cash grant of up to £10,000 if they have a rateable value of £15,000 or under, and £25,000 for properties with a rateable value of over £15,000 but less than £51,000. Businesses cannot receive more than £800,000 in state aid across all schemes.
68. The Government of Ireland's Restart Grant Plus scheme gives grants to businesses to help them reopen their premises after lock-down. Grants are between €4,000 and €25,000, with the level based on the rates assessment for the premises for 2019 (excluding arrears). To qualify, enterprises must have 250 employees or less, turnover of less than €100,000 per employee, and reduced turnover by 25% as a result of COVID-19.

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TE TAI ŌHANGA  
THE TREASURY**Treasury Report:** Experimental estimates of New Zealand's wealth distribution

<b>Date:</b>	28 August 2020	<b>Report No:</b>	T2020/2965
		<b>File Number:</b>	SH-13-5-9

**Action sought**

	<b>Action sought</b>	<b>Deadline</b>
Hon Grant Robertson <b>Minister of Finance</b>	Note new estimates of New Zealand's wealth distribution.	None
Hon David Parker <b>Associate Minister of Finance</b>	Note new estimates of New Zealand's wealth distribution. Forward this report to the Minister of Statistics.	None
Hon Stuart Nash <b>Minister of Revenue</b>	Note new estimates of New Zealand's wealth distribution.	None

**Contact for telephone discussion (if required)**

<b>Name</b>	<b>Position</b>	<b>Telephone</b>		<b>1<sup>st</sup> Contact</b>
Ben Ching	Analyst, Tax Strategy	s9(2)(k)	s9(2)(g)(ii)	✓
Felicity Barker	Team Leader, Tax Strategy			

**Minister's Office actions (if required)****Return** the signed report to Treasury.**Forward** this report to the Minister of Statistics (Hon Shaw's office) if agreed.Note any  
feedback on  
the quality of  
the report
**Enclosure:** No

## IN-CONFIDENCE

**Treasury Report: Experimental estimates of New Zealand's wealth distribution**

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**Executive Summary**

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This report responds to Minister Parker's request for improved estimates of the distribution of wealth in New Zealand. It presents experimental estimates of New Zealand's net wealth distribution to address underestimation apparent in the Household Economic Survey (HES).

The only recent data on the distribution of household wealth is from HES, a triennial wealth survey. HES is a high quality nationally representative survey. However, HES is unlikely to be a reliable guide to the distribution of wealth at the top of the distribution. Collecting data on the very wealthy (e.g. the top wealth percentiles) is a challenge because of response rates, sample size and accurate self-reporting of sensitive information. This challenge is not unique to HES and it occurs in many countries.

This report applies two experimental methods to improve our estimates of the wealth distribution, focussing on the amount of wealth held in the top decile (10%) and percentile (1%):

- **Augmenting survey data with a media rich list:** We have pooled the 2015/2018 HES wealth distribution figures and augmented the top end of this distribution with figures reported in the National Business Review (NBR) Rich List from 2018. This Rich List is published annually and in 2018 reported wealth for 236 families and individuals, with a combined total worth of approximately \$81 billion. This method considers family wealth as the variable of interest.
- **Capitalisation of taxable income:** We have used a method that allocates estimated total net wealth contained in the Reserve Bank's household balance sheet according to a distribution provided by Inland Revenue (IR) income data. The IR data does not cover all types of income (only taxable income) so we have filled known gaps, such as owner-occupied housing, by using HES estimates. This method considers individual taxpayer wealth as the variable of interest.

Progress has been made by exploring these experimental methods. New estimates are reported in this paper, although the work is subject to further review and refinement.

There are important caveats on the interpretation of this data. First, we are considering a concept of wealth that is defined by statistical reporting standards, and this definition may not always be suitable for the analytical purpose. Second, the data sources that are relied upon for these methods have not been designed for these purposes, and our techniques are novel in the New Zealand context. Due to biases in the Rich List data, it is not easy to assess the representativeness of the Rich List augmentation (i.e. if it represents a likely maximum value, or a central estimate). Further, the two methods consider different reporting units (families versus individuals), making comparison difficult. This means the estimates should be approached with caution and should be considered directional rather than precise.

**Table 1** presents wealth shares using the range of methods discussed in the report. While the limitations of the two experimental methods have different origins, the results of both methods are broadly similar. Using both methods, the estimated share of wealth held by the top percentile is higher than reported by the HES.



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Table 1: Key Estimates of New Zealand's Wealth Distribution<sup>1</sup>

	Top decile (10%) net wealth share estimate	Top percentile (1%) net wealth share estimate	Comment on limitations
<b>HES 2018 net worth estimates</b>  <b>Note:</b> based on individuals	59%	20%	<p>HES is not designed to sample enough high-wealth individuals to create robust estimates of this population. International evidence suggests low response rates by high-wealth individuals. Under-reporting of wealth may further bias estimates.</p> <p>Aggregate wealth is less than national accounts, indicating <b>underestimation</b>.</p>
<b>Pooled HES 2015/2018 net worth estimates</b>  <b>Note:</b> based on Economic Family Units ('EFUs')	60%	21%	<p>Less sample variability than a single survey, due to more samples of high-wealth families. However, HES remains unlikely to capture the highest wealth families due to the low probability of selection into the survey.</p> <p>Top wealth distribution still likely to be <b>underestimated</b>.</p>
<b>Augmented HES 2015/2018 net worth with NBR Rich Listers</b>  <b>Note:</b> based on Economic Family Units ('EFUs')	63%	26%	<p>Adds high-wealth families from Rich List, which raises the top percentile estimate. Does not attempt to account for underreporting in the survey (only the top 1%).</p> <p>NBR Rich List does not follow statistical standards and cannot be aligned easily with HES. Top wealth distribution may be <b>underestimated or overestimated</b>.</p>
<b>Capitalised IR administration data</b>  <b>Note:</b> based on taxpayers	70%	25%	<p>Relies on tax administration data that is not designed for wealth estimation.</p> <p>Assumes taxable income distribution is representative of asset distribution and a constant rate of return within asset classes. HES is still required for non-taxable wealth assets. Top wealth distribution may be <b>underestimated or overestimated</b>.</p>

The Treasury intends to further refine the Table 1 estimates. However, they are likely to remain experimental unless Stats New Zealand (Stats NZ) improves survey techniques used to estimate the top end of the wealth distribution. New Zealand is in the minority of OECD countries that do not actively oversample wealth populations. HES is currently being redesigned, but Stats NZ has advised they do not have the resource to oversample the wealthy. Furthermore, developing an oversampling technique may not completely remove known biases with household surveys. We recommend that you forward this report to the Minister for Statistics and ask for advice from Stats NZ on the feasibility, benefits and costs of oversampling the wealthy.

Officials will report back on next steps as part of development of the next tax policy work programme. As previously advised, we also plan to estimate the distribution of effective tax rates ('ETR'), once resources can be freed up from urgent COVID-19 response work (T2020/1847 refers).

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**Recommended Action**

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We recommend that you:

- a **note** that this report contains experimental estimates of the distribution of wealth in New Zealand.
- b **note** that the new estimates suggest that the top one percent of individuals hold a greater share of net wealth than indicated by the Household Economic Survey.
- c **note** that as the work is experimental and subject to further refinement, the estimates should be considered indicative.
- d **note** that as a step toward improving household survey estimates of wealth, you could ask the Minister of Statistics to commission advice from Stats NZ on the feasibility, benefits and costs associated with changes to survey design and sample size.
- e **agree** to forward this report to the Minister of Statistics.  
*Agree/disagree.*
- f **note** that officials will report back on next steps as part of development of the next tax policy work programme

Felicity Barker  
**Team Leader, Tax Strategy**

Hon Grant Robertson  
**Minister of Finance**

Hon David Parker  
**Associate Minister of Finance**

Hon Stuart Nash  
**Minister of Revenue**

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<sup>1</sup> Access to the data presented was managed by Stats NZ under strict micro-data access protocols and in accordance with the security and confidentiality provisions of the Statistic Act 1975. These findings are not Official Statistics.  
T2020/2965 Experimental estimates of New Zealand's wealth distribution



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## Treasury Report: Experimental estimates of New Zealand's wealth distribution

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### Purpose of Report

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1. This report responds to the request from Minister Parker for improved data on the distribution of household wealth in New Zealand. The report assesses two different approaches that have been implemented and their results are presented in this report.
2. The report is structured as follows:

<i>Background on work programme</i>	5
<i>Problem definition</i>	6
<i>Methods</i>	7
<i>Method 1 results: pooling and augmenting survey data with the NBR Rich List</i>	10
<i>Method 2 results: improving net worth estimates by using income tax data</i>	11
<i>Insights from the new estimates</i>	14
<i>Further Work</i>	15
Annex A – The NBR Rich List augmentation method	16
Annex B – The income tax capitalisation method	17

### Background on work programme

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3. This report is part of a work programme on the distribution of wealth and effective tax rates by wealth decile.
4. The first phase of the work scoped out the available data sources and options for further work (T2019/3234 *Effective tax rates – distributional analysis*, December 2019). Significant obstacles to obtaining accurate estimates on effective tax rates were identified:
  - Household Economic Survey data does not survey enough high-wealth households to adequately represent their wealth share and therefore it likely underestimates the aggregate wealth of New Zealanders.
  - Administrative data sources do not hold information on the wealth, consumption or economic income of taxpayers, reflecting the structure of the tax system.
5. Following the scoping phase, in January 2020 we met with Minister Parker and confirmed his request for further analysis. The following were commissioned:
  - a. The Treasury to report back on data sources that might be used to estimate the income for the top 1% of earners (**delivered**: T2020/297, February 2020).
  - b. Inland Revenue (IR) to provide its annual report on high wealth individuals and estimates of effective tax rates (using a proxy for economic income) for a sample of high wealth individuals (HWIs) using administrative data (**delivered**: BN2020/087, February 2020). This report estimated that the effective tax rate for HWIs was highly variable and subject to data quality limitations. Based on the available data, the average tax rate for a sample of HWIs was 12% of economic

**IN-CONFIDENCE**

income. Economic income is a broader concept than taxable income and includes, for example, capital gains. Additionally, 42% of the sample recorded a tax rate below 10% of economic income. This is lower than the statutory tax rate, which could be due to the source of income earned (eg capital gains), the use of imputation credits, or the use of loss carry forwards. As nearly 80% of the tax paid by these HWIs was corporate tax, the timing of imputation credits and loss carry forwards is likely to explain the large variability in effective rates.

- c. The Treasury and IR to continue work on HES 2018 and the capitalisation of income for a report, which was to include:
  - i. Improved estimates of the top of the wealth distribution, trialling new statistical methods and augmenting survey data with rich list data.
  - ii. Updated effective tax rate estimates based on integrated wealth and expenditure data from HES 2018.
  - iii. Exploration of the applicability of the income capitalisation method to New Zealand, and results from this method.<sup>2</sup>
6. This report contains our completed work as summarised under point (c)(i) and (iii) above. However, as discussed in aide memoire T2020/1847: *Progress update on wealth distributions and effective tax rates*, we are not currently able to deliver point (c)(ii) (updated effective tax rates using HES) because of resource reallocation into the COVID-19 response and the need to update the Treasury's tax and welfare model with recent economic data.
7. The methods used to generate the estimates in this paper were subject to review by a quality assurance panel comprised of officials from the Treasury, Inland Revenue, Stats New Zealand and s9(2)(a). Given the novelty of these methods they are subject to further refinement, and hence the estimates in this paper should be viewed as preliminary.

### Problem definition

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8. The objective of this work is to improve estimates of the distribution of individual wealth in New Zealand, especially the share of wealth held by the top 1% of the wealth distribution.
9. We use the concept of wealth used by official statistical bodies, which includes financial and non-financial assets and financial liabilities that can be owned and valued by households. The precise definition of household wealth is that used by Stats New Zealand. There is a wider literature on the wealth concept that we do not discuss in this report (e.g. treatment of human capital).
10. The only existing recent statistical data on New Zealand's wealth distribution comes from household surveys. The most recent wealth surveys are Stats NZ's HES in 2015 and 2018. However, household wealth surveys have known biases to undercount the wealth at the top of the distribution. This derives from:
  - Non-response bias: international evidence suggests that higher wealth individuals tend to have a higher non-response rate in financial surveys.

<sup>2</sup> This is based on the work of: Saez, E. and Zucman, G. (2014) "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data" *NBER Working Paper Series*

**IN-CONFIDENCE**

- Differential under-reporting: it is thought that the wealthy may under-report their net worth at a higher rate than the general population. However, there is no New Zealand evidence to prove such 'differential' wealth under-reporting.
11. At an aggregate level, however, comparison of HES data to the Reserve Bank (RBNZ) household balance sheet suggests HES undercounts wealth. For example, in 2018 the HES net worth estimates summed to \$1.37 trillion, while the RBNZ household balance sheet estimates summed to \$1.54 trillion. Further, the RBNZ household balance sheet excludes consumer durables and valuables, which when adjusted for suggests a shortfall in HES net worth estimates of approximately \$340 billion. There will be many reasons for this mismatch, such as differences in the valuation of the housing stock and treatment of non-resident ownership, but differential under reporting bias is also likely to be a factor.
  12. Assuming differential non-response and under-reporting biases are factors in New Zealand would suggest that estimates of wealth shares based on HES could under estimate the share of wealth at the top of the distribution.

**Methods**

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13. Following the international literature, we have identified three options for improving the estimates of the top of the wealth distribution:
  - Oversampling the wealthy in surveys;
  - Pooling multiple surveys then augmenting them with the National Business Review (NBR) Rich List; and
  - Capitalisation of taxable income.
14. Each of these methods has different strengths and weaknesses, assessed here, which should be considered in interpreting results.
15. We implement the second and third methods in this report. The first option has merit, but does not provide the full solution and requires significantly more time and cost to implement.
16. Internationally, there is an active academic literature on the measurement of wealth inequality. There is currently no clear consensus about the best methods. There has been minimal academic research on the measurement of New Zealand's wealth distribution.

*Oversampling the wealthy in surveys*

17. Oversampling the wealthiest individuals in surveys may address the issue of low sample sizes and response rates. This would require Stats NZ to change the survey design so that they can identify wealthy individuals and oversample them. Oversampling wealthy households has been used in 18 out of 23 OECD countries that have household wealth surveys, in order to correct for the biases discussed in this paper. One option used internationally for oversampling the wealthy is to link survey samples to tax data.
18. Stats NZ is currently focussed on re-designing HES so that it will split into two new surveys:

**IN-CONFIDENCE**

- a. The Longitudinal Survey of Income and Housing Costs will collect data from individuals followed across time. This survey aims to improve our understanding of the persistence of poverty in New Zealand.
  - b. The Household Expenditure and Wealth Survey (HEW) will maintain the quality of cross-sectional data that is currently provided by the HES wealth and expenditure surveys.
19. Stats NZ is also considering whether any emerging data needs could be met through the new surveys. Treasury officials expressed the view to Stats NZ that weight should be given to the skewed nature of the wealth distribution and that oversampling of wealthy households should be considered. However, implementation of this method is not possible within current HES resourcing. Moreover, there are long lead times with conducting household surveys. Given this, the Treasury considers that it should be considered further by Stats NZ, but it is not a short-term option.
  20. Notably, the Tax Working Group recommended that the Government fund oversampling of the wealthy in existing surveys (Tax Working Group Final Report, recommendation 68 refers).
  21. To take this further, you could raise this issue with the Minister for Statistics to seek advice from Stats NZ on the feasibility, costs and benefits of oversampling the top decile in the new HEW survey.

*Pooling multiple surveys and augmenting with the NBR Rich List*

22. One method used internationally for addressing the non-response bias in household surveys is to combine survey data with media lists of the wealthy.<sup>3</sup> In the next section we implement this method for New Zealand by augmenting the HES net worth data with the National Business Review's (NBR's) Rich List observations. This method can be implemented at low cost since it requires only existing data sources with the application of statistical modelling techniques.
23. The first step in our method is to pool observations from both the 2015 and 2018 HES net worth surveys, in order to achieve a larger sample size and more precise estimates. Wealth values from the 2015 survey were adjusted for inflation to be comparable with 2018 values.
24. The next step is to augment the pooled 2015/2018 HES net worth estimates by adding each member of the 2018 NBR Rich List as additional observations. This step changes the top end of the distribution. This ensures that the dataset includes high wealth individuals that are unlikely to be captured in the HES survey.
25. We also investigated fitting a Pareto distribution to the data (a statistical method used in international literature to estimate skewed distributions), but found that more work would be required to determine the most appropriate parameters to fit this distribution. We do not believe the top percentile (1%) estimates are likely to substantially change by fitting a Pareto distribution. However, this is a further extension that can be undertaken in the future. More detail on our method is in **Annex A**.
26. There are several known limitations with using rich list data to uplift survey wealth estimates. Limitations of using rich lists to amend wealth estimates include:

<sup>3</sup> See Balestra, C. a. (2018). "Inequalities in household wealth across OECD countries: Evidence from the OECD Wealth Distribution Database". *OECD*, at pages 23 – 24.

**IN-CONFIDENCE**

- The rich list estimation methods are not fully known or publicly published with full detail. Valuation methods will not be consistent with the survey method. For example, the NBR Rich List may not be able to accurately estimate liabilities, which would lead to overestimates of net wealth.
  - The rich list estimation methods do not distinguish tax residents from non-tax residents. Again, this is likely to lead to overestimation of the top of the wealth distribution by including non-residents.
  - The rich list method may not be consistent over time, limiting the comparability of estimates over time.
  - The rich list may include a mix of individuals and families, different to the household unit used in surveys.
  - For surveys like HES, that do not already over-sample the top of the wealth distribution, it is likely that augmenting the survey with rich list data will lead to an overestimation bias of the top percentile as additional observations are only generally added in this percentile, whereas under-reporting may occur in the entire top decile.
27. It is unclear if these issues will result in rich list estimates providing an under or over estimate. The fact that the NBR Rich List often counts groups of individuals (family units) may bias estimates upwards. However, under reporting may bias estimates downwards. It is therefore difficult to assess how representative the estimates are.

*Capitalisation of taxable income*

28. This approach is known as the 'capitalisation method', since it essentially capitalises (sums up) taxable income streams to calculate wealth for each taxpayer. The capitalisation method is based on the idea that the size of each capital income flow can indicate the distribution of the underlying assets that generate capital income.
29. Our replication of the capitalisation method uses IR income tax data to provide an underlying distribution for four different asset classes. The taxable income streams (which for New Zealand relate to fixed income deposits, New Zealand companies, equity in unincorporated businesses and PIEs) are used to distribute total asset estimates found in the RBNZ household balance sheet. For asset categories that do not generate taxable income (e.g. owner-occupied housing) we adjusted the wealth distribution using HES data. Further detail on this method and our robustness testing can be found in **Annex B**.
30. The main advantage of the capitalisation approach is that it uses administrative data, therefore it captures the whole population including the wealthiest individuals. Unlike surveys, it does not rely on sampling or self-reported information. While this method has several limitations (discussed below), it may provide a useful cross-check on survey-based estimates.
31. As the administrative and household balance sheet data are readily available to officials, it can be implemented at relatively low cost. It does require the development of a New Zealand specific method and a significant amount of data analysis and statistical modelling. The New Zealand method is novel, and the detailed methods and assumptions will need further testing and refinement. We present an initial method and estimates below.



**IN-CONFIDENCE**

32. The capitalisation method faces several limitations, including that it:

- Assumes constant taxable capital returns within each asset class. If the wealthy can systematically achieve higher (lower) rates of return than the rest of the population within each asset class, the method will likely *overestimate* (*underestimate*) the wealth at the top of the distribution.
- Relies upon taxable income data to supply the underlying distribution information. New Zealand's notable absence of a capital gains tax means that we cannot observe all aspects of the underlying distribution. However, the method will be accurate if the distribution of a taxable income stream is the same as the underlying distribution of wealth in each asset class (e.g. the distribution of dividend income is the same as the distribution of company ownership). Saez and Zucman (2014) also encountered difficulty with capitalising data on capital gains and found that this did not materially affect their results. However, we are unsure how much incomplete information on economic income biases results in New Zealand.
- It is not always possible to differentiate capital and labour income using taxable income (e.g. company profits generated through self-employed labour effort). We have applied a sensitivity analysis to check the robustness of results to two different assumptions about the split between labour and capital income.
- A New Zealand specific limitation is that we only have 4 general asset categories that we could capitalise, while the American estimates used 8 asset categories. Having fewer categories to capitalise reduces the precision of our estimates, as we had to aggregate some quite different categories.<sup>4</sup>
- HES data must be relied upon to fill asset categories that do not generate taxable income, the biggest of which is owner-occupied housing. Wealth shares are based on individuals in HES, which may not align perfectly with the 'taxpayer' unit used in the capitalisation method. The individuals in the top HES wealth percentile may not match the individuals in the top capitalised wealth percentile. This means that we risk overestimating the top of the wealth distribution when overlaying the HES data for owner-occupied housing.

### Method 1 results: pooling and augmenting survey data with the NBR Rich List

33. Figure 1 shows how augmenting HES data with the NBR Rich List changes the wealth distribution for the top 10 percentiles. The columns in Figure 1 are arranged from percentile 91 through to 100 (the wealthiest 1% of the population). The results are:

- The wealth share of the top 1% has increased from 21% (using only pooled 2015/2018 HES) to 25.6% (using HES augmented with the NBR Rich List), a 4.6 percentage point increase.
- The wealth share of the top 10% has increased from 60% (using only pooled 2015/2018 HES) to 62.5% (using HES augmented with the NBR Rich List), a 2.5 percentage point increase.
- There is a slight decrease in the other percentiles in the top decile.

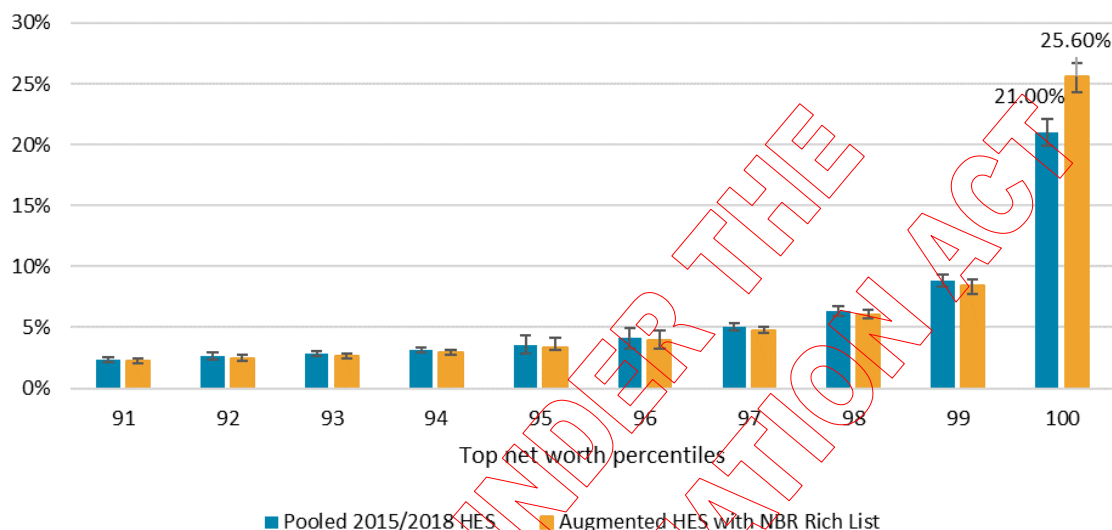
34. The increase of the top percentile wealth share presented in Figure 1 appears consistent with international experience. Countries with no oversampling in their wealth surveys typically see rich lists raise their top percentile wealth share estimates by 1 to 12 percentage points. For example, Canada's estimate of the top percentile increased from 14% to 26%, and Italy's from 14% to 20-21%. By contrast, countries that use

<sup>4</sup> For example trust, partnership, self-employment income and rents are all capitalised together as 'equity in unincorporated businesses'.

## IN-CONFIDENCE

individual tax information to identify and oversample the wealthy, see top percentile uplifts of only 1 to 3 percentage points when rich list data is added.<sup>5</sup>

**Figure 1: Wealth share held by the top 10 net worth percentiles**



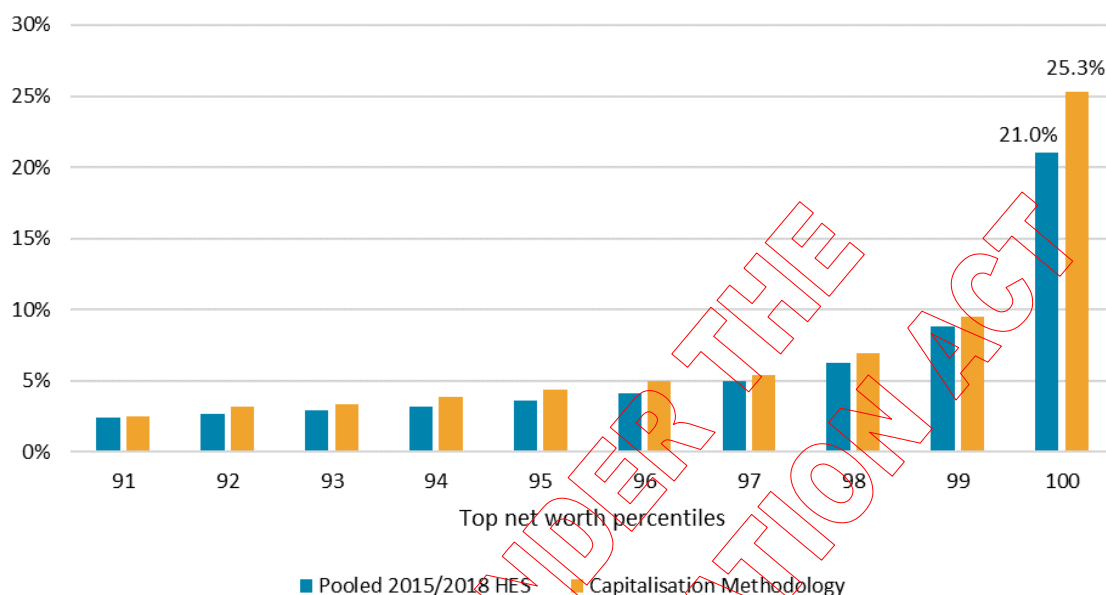
**Note:** this chart is ordered by net worth percentiles. HES data is based on Economic Family Units, which are based on net worth samples of single adults and their partners if they are partnered. Rich List data may be composed of a mixture of individuals, couples and family units, which may bias this method to exaggerate top percentile wealth, but other factors may bias the estimate downwards (eg reliance on HES for the owner-occupied housing distribution). Access to the data presented was managed by Statistics New Zealand under strict micro-data access protocols and in accordance with the security and confidentiality provisions of the Statistic Act 1975. These findings are not Official Statistics.

### Method 2 results: improving net worth estimates by using income tax data

35. Figure 2 displays the initial wealth estimates for the top 10 percentiles of New Zealand's wealth distribution using the capitalisation method. The columns in Figure 2 are arranged from percentile 91 through to 100 (the wealthiest 1% of the population). For comparison we have left the pooled 2015/2018 HES distribution in this chart, coloured blue. Notably the top percentile wealth share is 25.3% using the capitalisation method, compared with 21% using pooled 2015/2018 HES data (and 25.6% using the NBR rich list). Under this method there is a slight increase in the other percentiles in the top decile.
36. The top 10% wealth share is 69.5%, compared with 60% using only the pooled 2015/2018 HES data and 62.5% using the NBR Rich List method. This difference might be explained in part as the Rich List only adds observations to the top 1%, which may leave the top decile wealth share underestimated. Further refinement of the Rich List augmentation method, including application of the Pareto distribution, would provide a check on estimates of the top decile (see **Annex A**). Given the limitations with the data, the results may be over-estimated or under-estimated.

<sup>5</sup> Vermeulen, P. (2016). "Estimating the top tail of the wealth distribution." *ECB Working Paper Series*, at 381.

## IN-CONFIDENCE

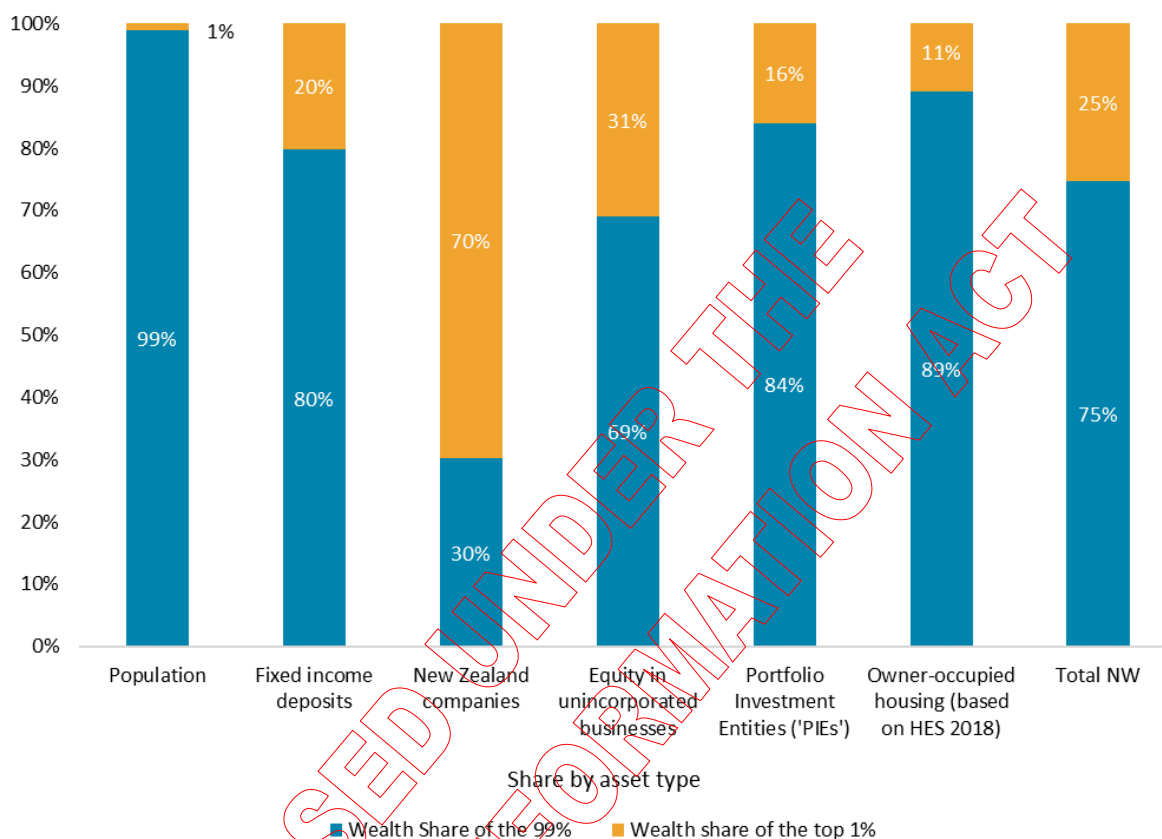
**Figure 2: Wealth share held by the top 10 net worth percentiles**

**Note:** the percentiles here are ordered by net worth. The unit of analysis is individual taxpayers for the capitalisation method and Economic Family Units for HES (individuals and couples). 1. The capitalisation results are based in part on tax data supplied by Inland Revenue to Statistics NZ under the Tax Administration Act 1994.

37. Figure 3 helps us understand the composition of wealth for the top percentile, as indicated by the capitalisation method. The estimates are influenced by the way that data is collected in the tax system, so caution is warranted. The first bar represents the number of people in the top percentile. The four capitalised wealth classes are split out to show the proportion held by the top 1% of the wealth distribution. The fifth asset group (owner-occupied housing) is taken from HES 2018 and added onto the total of the capitalised estimates to come to a net worth value. A key limitation here is whether the 1% population in HES is a reasonable approximation of the capitalised 1% population. Further time to model this is required to know if this would shift our estimates significantly.
38. Figure 3 shows that the top percentile own wealth far exceeding their population size. The top percentile owns approximately 70% of the wealth in listed New Zealand companies. The asset type that is least dominated by the top percentile is owner-occupied housing, but even there they hold 11% of the stock.
39. Figure 3 shows that the asset class with the lowest concentration in the top percentile was owner-occupied housing. Figure 4 shows the capitalised wealth distribution with and without owner-occupied housing. In Figure 4, deciles 1-6 are grouped into a single column because their wealth share is very small. The fact that the wealth share of decile 1-6 without owner-occupied housing (around 0%) is lower than the HES estimate (10% household share), suggests that the capitalisation method **undercounts wealth at the bottom of the distribution**, probably because low wealth individuals own few assets that generate taxable income data (ie they hold more of their wealth as cash or household durables).



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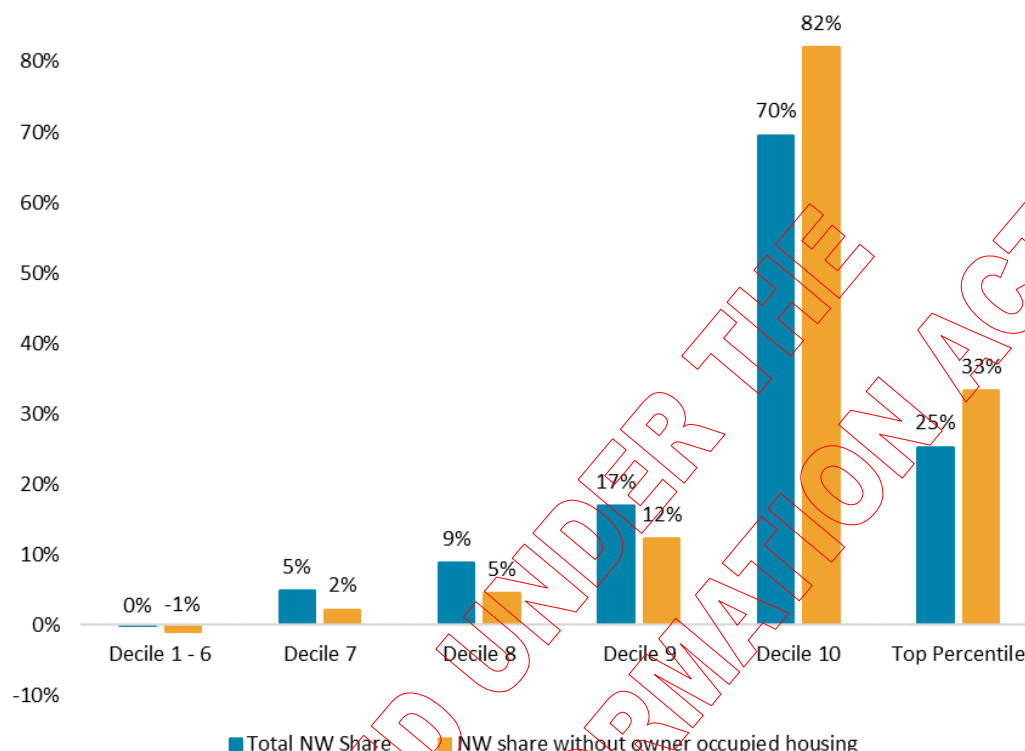
**Figure 3: Estimated wealth shares for main asset types using the capitalisation method**

**Note:** Data for population based on taxpayer population in 2018. All other columns based on capitalisation method, except for owner-occupied housing which is a HES estimate based on self-declared principal dwellings held either in owner's name or family trust.

40. Figure 4 shows that when owner occupied housing is removed from our statistics then the wealth share:

- decreases for the bottom 90% of taxpayers (from 30% to 18%),
- increases for the top decile of taxpayers (from 70% up to 82%), and
- increases for the top percentile of taxpayers (from 25% up to 33%).

## IN-CONFIDENCE

**Figure 4: Wealth share with and without owner-occupied housing using capitalisation method**

**Note:** Data is based on capitalisation method, except for owner-occupied housing which is a HES estimate based on self-declared principal dwellings held by owner or family trust.

### Insights from the new estimates

41. The new analysis has made progress in understanding the distribution of wealth. The two methods investigated have resulted in a 4-5 percentage point increase in the estimated wealth share of the top percentile, compared with the estimate from HES. While this result should not be considered as a highly precise or final estimate, this result is consistent with there being under-reporting of wealth in HES by high wealth individuals, relative to rest of the population. This may be biasing HES estimates of the top of the wealth distribution down. We have summarised these top percentile estimates in Table 2.

**Table 2: Comparison of top percentile net worth estimates**

Methods:	HES 2018	Pooled 2015/2018 HES	Pooled HES augmented with NBR Rich List	2018 Capitalisation Method
Estimates:	20.0% (standard error 1.2) <sup>6</sup>	21.0% (standard error = 1.1) <sup>6</sup>	25.6% (standard error = 1.3) <sup>6</sup>	25.3% (standard error not applicable for non-survey methods)
Units of analysis:	Individuals	Economic Family Unit ('EFU')	EFU and NBR Rich List	Individuals and taxpayers

## IN-CONFIDENCE

42. Similarly, both of our new estimation methods have uplifted estimates of the top wealth decile. However, at the decile level our two methods diverge somewhat, as shown in Table 3. As previously discussed, international evidence suggests that top wealth estimates that rely on survey responses are prone to under-reporting bias, suggesting the augmentation method may continue to underestimate the top decile. Further review and refinement of these methods is required to understand the difference.

Table 3: Comparison of top decile net worth estimates

Methods:	HES 2018	Pooled 2015/2018 HES	Pooled HES augmented with NBR Rich List	2018 Capitalisation Method
Estimates	59% (standard error = 1.9) <sup>6</sup>	60% (standard error = 1.3) <sup>6</sup>	63% (standard error = 1.3) <sup>6</sup>	70% (standard error not applicable for non-survey methods)
Units of analysis:	Individuals	Economic Family Unit ('EFU')	EFU and NBR Rich List	Individuals and taxpayers

43. Note that the units of analysis vary between the different estimation methods, which precludes direct comparison. It can still be seen that both experimental methods both uplift in the same direction and by similar magnitudes.

## Further Work

44. Officials will report back on next steps as part of development of the next tax policy work programme. The Treasury also intends to undertake further work on estimating the distribution of effective tax rates once resourcing allows.
45. As discussed in **Annex A** there remains an opportunity to improve our NBR Rich List methodology through the application of a statistical technique that has been developed by an international expert in this field, s9(2)(a). s9(2)(a) has provided quality assurance of this work and has expressed interest in further collaboration.
46. It is unclear how the COVID-19 pandemic may have affected the wealth distribution. We cannot conduct new estimates until HES 2021 net worth data is collected and published.
47. While the Treasury intends to further refine the wealth distribution estimates, they are likely to remain experimental unless Stats NZ improves survey techniques used for the top end of the wealth distribution. We consider there would be merit in Stats NZ investigating the costs and benefits of improving the HES survey estimates by oversampling high-wealth households. We recommend that you forward this paper to the Minister of Statistics to seek further advice on this matter.
48. There are also other applications of these methods that could be explored in the future, including updating the estimates of wealth inequality over time, or investigating demographic or life-cycle characteristics of wealth. This work would help address known limitations of our experimental estimates.

<sup>6</sup> Standard errors are a measure of the sample error in our estimates. If the correction removed all non-sample bias in our estimate, there is a 95% probability that the true figure is within two standard errors of the estimate. However, a remaining non-sample error could remain unaccounted for.

**IN-CONFIDENCE****Annex A – The NBR Rich List augmentation method**

In theory, the HES wealth surveys cover the entire New Zealand population, but in practice they only include individuals or families with wealth up to about \$50 million. The National Business Review (NBR) has been publishing a list of rich individuals and families in NZ since the 1980s. These Rich Lists document several hundred individuals and families with wealth ranging from \$30 million up to \$10 billion (2019 Rich List).

Techniques that add rich list data to other sources of data have been used for measuring wealth inequality in several countries. For the United States, Saez and Zucman used the Forbes 400 list of wealthy individuals.<sup>7</sup> The Canadian Parliamentary Budget Office has combined survey data with Canadian Business magazine's Richest People List.<sup>8</sup> Vermeulen has published estimates that combine observations from Forbes World's billionaires with the national wealth survey estimates for 11 different countries.<sup>9</sup>

Our method combines the observations from the NBR Rich List with those from HES. HES surveys give each sample observation (each person) a 'weight'. This allows them to be scaled up to represent the population. A HES observation weight is approximately 300. This means that each individual observation is normally scaled up to represent 300 people.

In adding the NBR observations, we have treated the Rich List like an additional 'full coverage' stratum (category) in the survey. This means that we assume Rich Listers were not picked up by HES and that we have not double counted their wealth. This technique is often used in sampling very skewed populations. This application is different than usual because we did not have the stratum identified before we selected the HES survey. Nevertheless, the assumption is that we have a full survey of those in the very top of the wealth tail and each Rich-Lister is given a weight of 1 in the analysis.

In combining the two datasets together in this way we are further assuming that there was no chance they would have ever overlapped. In other words that the chance of any of the Rich-Lister participating in the HES wealth survey was close to zero.

With the NBR observations augmenting HES we were then able to calculate a new wealth distribution. Because all the Rich Listers had net worth values above the top HES observation, this augmentation technique only uplifted our estimate for the top percentile. This means the share of all other wealth percentiles appears smaller, since all percentages must sum to 100.

***The Pareto distribution***

Some academic literature on wealth distribution (eg Philip Vermeulen) fits the wealth distribution to a Pareto distribution. This is a skewed (uneven) distribution that assumes a high proportion of people have low wealth and a small number have high wealth. It is possible that assuming a Pareto distribution for the shape of the tail of the wealth distribution might be a useful further step in this analysis and help us further integrate the HES survey data and the NBR rich list data. Specialist expertise would be required to undertake this work.

<sup>7</sup> Saez, E. and Zucman, G. (2014) "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data" *NBER Working Paper Series*

<sup>8</sup> Wodrich, N. and Worswick, A. (2016) "Estimating the top tail of the family wealth distribution in Canada", Office of the Parliamentary Budget Officer

<sup>9</sup> Vermeulen, P. (2016). "Estimating the top tail of the wealth distribution." *ECB Working Paper Series*, 357 – 387.

## IN-CONFIDENCE

**Annex B – The income tax capitalisation method**

This method is premised on the idea that taxable income data can be used to calculate the value of the underlying assets that generate the income. In theory, using IR taxable income data circumvents the pitfalls of relying on survey data such as HES, which might be biased by low sampling and under-reporting of assets. We followed the following six steps to calculate the capitalised wealth distribution:

- 1) We mapped IR income tax streams to the RBNZ Household Balance Sheet (C22), which records household assets and liabilities.<sup>10</sup> The basic mapping is summarised in Table A. We use Table A to aggregate the taxable income for each wealth category.

**Table A: Mapping IR income tax data to the RBNZ Household Balance Sheet**

IR administration data as found in individual tax returns ('IR3')	RBNZ Household Balance Sheet (C22)
<b>Interest income:</b> Box 13B on the IR3. This should include any fixed interest e.g. from banks, IRD, building societies, etc.	<b>Deposits:</b> B Currency + C1 deposits with registered banks + C2 deposits with Non-Bank Deposit Takers + D1 central government debt securities, + D2 Local government debt securities + D2 Other debt securities + E Loans
<b>New Zealand dividend income:</b> Box 14B on the IR3. This should include dividends from NZ companies, unit trusts distributions, and dividends from NZ partnerships, estates or trusts, and any shares received instead of dividends.	<b>Equities:</b> F1.1 NZ listed shares + F1.2 NZ unlisted shares
<b>Income from partnerships, shareholder-employee salary, self-employment income, trust income and housing:</b> Sum of IR3 boxes: 23 is self-employment income, 21 is shareholder-employee salary with no tax deduction, 19E is look through company income, 18B is partnership income, 16B is trust income, 16C is non-complying trust income, box 22 is net rents.	<b>Unincorporated equity:</b> F1.3 Equity in unincorporated NZ businesses
<b>Income from Portfolio Investment Entities ('PIEs'):</b> This value is derived from the returns filed by PIEs each year to tell IR who they allocate income to.	<b>Investment Funds and Insurance:</b> F1.4 Overseas listed shares F2.1 Cash management trusts + F2.2 Investment fund shares + G1.1 Net equity in life insurance + G1.2 Net equity in superannuation funds + G2 Non-life insurance claims

- 2) Once the income totals are provided, we can calculate multipliers by mapping balance sheets items to corresponding taxable income totals:

RBNZ HC22 Household Balancesheet  
Taxable income

As an example, previous data provides the following numbers:

<sup>10</sup> The RBNZ Household Balance Sheet (C22) is part of the national accounts. It provides aggregated wealth data for households based on multiple sources, including bank's balance sheets, non-bank lending institutions balance sheets, NZX records, Stats NZ surveys and others.

## IN-CONFIDENCE

Total taxable interest incomes for 2018 (from IR individual tax returns) were \$4.252 billion and the total value of deposits (from the RBNZ balance sheet C22) was \$179.417 billion NZD. Dividing the total deposit value by total taxable income gives a multiplier of 42. Therefore, we multiplied the total taxable interest income figures for every individual by 42. Therefore, to estimate the value of Deposit assets held by each individual, we can multiply the total taxable interest income figures for an individual by 42. When the assets of all individuals are added together, the total asset valuation using this method will always match the figure in the RBNZ household balance sheet (here, the \$179.417 billion NZD). A multiplier of 42 gives an implied rate of return of  $1/42 = 2.4\%$ . By necessity the capitalisation method assumes that the rate of return on each asset class is consistent across the wealth distribution.

- 3) For each taxpayer their various taxable incomes are capitalised by multiplying each income type by the corresponding multiplier. For example, a person with declared interest income of \$1,000 results in capitalised wealth of \$42,000 held in interest bearing assets. This would be repeated for all assets listed in step 1.
- 4) Wealth for each individual can then be summed to give a wealth figure and individuals can be ranked into gross wealth order: deciles and percentiles.
- 5) Sensitivity analysis: one critique of the capitalisation method is that labour income might wrongly be attributed as returns to physical wealth, thereby exaggerating the top of the wealth distribution.<sup>11</sup> On this basis we ran the following sensitivity analysis:

Re-run steps 1-4 but with "partnership, self-employed, look-through company and shareholder-employee income" scaled by 45%. The Productivity Commission has estimated the labour income share in New Zealand to be approximately 55%, hence why we have assumed 45% of the income from these four structures to be returns to physical capital.<sup>12</sup> We do not adjust 'trust income' or 'rent income' for this sensitivity analysis, as both are assumed to be accruing returns on physical capital.<sup>13</sup> This analysis will shift the underlying income distribution and reduces the impact of returns to human capital, allowing us to comment on how sensitive our estimates are to changes in assumptions (see results below entitled: *Sensitivity Analysis*).

- 6) **Adjusting wealth estimates using HES data for categories with no corresponding taxable income:** to ensure that there is coverage of all assets and liabilities, we augment wealth estimates using data from HES for categories that do not generate taxable income (e.g. owner-occupied housing). The following adjustments are made to the estimates generated in steps 1-5:
  - a. Add owner-occupied housing. To allocate to the top wealth percentiles we can order this series by net worth based on individuals.
  - b. Add net owner-occupied housing assets held in family trusts. We know that the wealthiest individuals often hold their family homes in trusts, so ignoring trusts risks a wealth undercount.
  - c. Subtract owner-occupied housing loans. To allocate to the top wealth percentiles we can order this series by net worth based on individuals.

<sup>11</sup> Matthew, S., Yagan, D., Zidar, O., & Zwick, E. (2019) "[Capitalists in the Twenty-First Century](#)," The Quarterly Journal of Economics, vol 134(4), pages 1675-1745.

<sup>12</sup> Fraser, H. (2018). The Labour Income Share in New Zealand: An Update. *New Zealand Productivity Commission*, [https://www.productivity.govt.nz/assets/Research/ce93eb75b8/The-Labour-Income-Share-in-New-Zealand-March-2018\\_0.pdf](https://www.productivity.govt.nz/assets/Research/ce93eb75b8/The-Labour-Income-Share-in-New-Zealand-March-2018_0.pdf)

<sup>13</sup> For example, we know that Family Trusts tend to hold significant housing assets according to HES estimates. This explains why the share of owner-occupied housing wealth decreases between decile 9 and 10 in the HES wealth estimates.



**IN-CONFIDENCE**

- d. Subtract consumer loans. Allocate to the top percentile by dividing the top decile figure by 10 – this is likely to *over-allocate* this liability to the top percentile, but using the average across the decile avoids the high variability that this series has for the top of the distribution.
- e. Subtract education loans. Allocate to the top percentile by dividing the top decile figure by 10 – this is likely to *over-allocate* this liability to the top percentile but, as with consumer loans, avoids the high variability that this series has for the top of the distribution.

Note that this last step is similar to the approach of Saez and Zucman (2014) where survey-based estimates are used to augment data from administrative sources. It is a pragmatic adjustment as it is not ideal to 'blend' data with different measurement units. With more time we could attempt to run this step through Treasury's Integrated Data Infrastructure ('IDI') which would link the samples with the tax data at the individual level.

*Data privacy*

The tax data must be used only for statistical purposes. Any person who has had access to the unit record data has certified that they have been shown, have read, and have understood section 81 of the Tax Administration Act 1994, which relates to secrecy. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes and is not related to the data's ability to support Inland Revenue's core operational requirements.

*Sensitivity analysis*

Some taxable income streams are derived from human effort rather than capital. We dealt with this problem by running a 'sensitivity analysis' (step 5 above) whereby we repeated our estimates but scaled down taxable income accruing to four business categories most likely to be labour intensive. Sensitivity analysis did not significantly impact our results (see **Figure B** below).

For comparison we have included the sensitivity results in **Figure A**, coloured orange. It is apparent that the down-scaling of partnership, self-employment, shareholder-employee and look-through-companies' income did little to alter the wealth distribution. A 0.3 percentage point decrease in the wealth estimate for the top percentile (labelled '100') is visible. The main method estimate (coloured blue) is that the top centile owns 25.3% of New Zealand's net wealth and the sensitivity analysis resulting in an estimate of a 25.0% wealth share.

## IN-CONFIDENCE

**Figure A: Wealth share for the top 10 percentiles with sensitivity analysis**