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THE TREASURY

Analytical Note

November 2021

The Wealth Ladder: House Prices and Wealth Inequality in New Zealand

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Analytical Note 21/01

JEL Classifications: D31, G51, D63, E21, E3

The code used to produce the statistics used in this report can be accessed at the following GitHub address: https://github.com/Treasury-Analytics-and-Insights/Analytical-Note-21-01-Housing-and-Wealth-Inequality

For many New Zealanders, buying a house has traditionally been the first rung on the wealth ladder. But there has been concern that recent house price growth has led to this first rung moving out of reach of first home buyers.

This *Analytical Note* presents preliminary work on the relationship between house prices, the wealth distribution, and wealth inequality. We find that housing wealth is the largest and most widely held type of wealth in New Zealand and that, partly reflecting house price growth, wealth has been increasing over time. Overall, we find that wealth inequality slightly decreases when housing wealth increases, all else equal.

However, we find an increase in wealth inequality between those already on the wealth ladder and those who have not reached the first rung. We also find that households who have not made it onto the wealth ladder are more likely to be living in material hardship or to have high housing costs.

The most recent data on the wealth distribution is from 2018, so it is not yet possible to directly measure the impact of recent house price inflation. This Analytical Note thus takes a "scenario" approach – where the effect of scenarios for house price growth on the 2018 wealth distribution and, in turn, wealth inequality, is modelled while holding all else constant.

Note that this is a highly stylised exercise and changes in the return to other assets (such as financial assets) will also have an important effect on inequality. It is thus useful to consider the findings of this work alongside other relevant research, such as RBNZ work on the household cash flow effects of low interest rates (Nolan, 2021).

The methodology and data used are explained in an annex to this Analytical Note. We plan to do further work on this topic when new data become available in the first half of 2022.

Key Results

The most surprising result in this Analytical Note is that an increase in house prices causes a slight *decrease* in wealth inequality, as measured by the Gini coefficient. We estimate that a 10% increase in house prices causes a 0.7 percentage point drop in the household wealth Gini coefficient of the whole population.

- It seems strange that growing the wealth of housing owners, but not the wealth of non-owners, leads to a decrease in relative wealth inequality.
- To help understand this result, we split the total population into owners and non-owners of housing.
- This gives us three wealth Gini coefficients, which measure inequality of owners; inequality of non-owners; and inequality between owners and non-owners.

We estimate that a 10% increase in house prices causes a 1.3 percentage point drop in the wealth Gini coefficient of owners.

- About 64% of all households are homeowners. The wealth of the wealthiest owners is mostly in non-housing assets, which we hold constant, but most owners have their wealth in housing assets, which we inflate. This reduces the relative gap between the wealthiest owners and all other owners.

We estimate that a 10% increase in house prices causes a 0.3 percentage point increase in the wealth Gini coefficient between owners and non-owners.

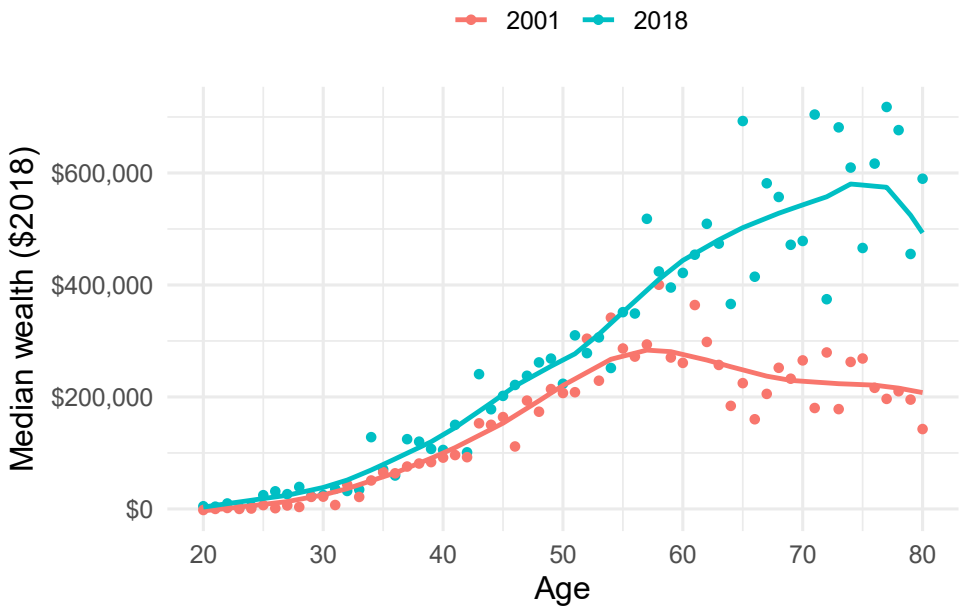
- We increase the wealth of owners while keeping the wealth of non-owners constant. This widens the relative wealth gap between owners and non-owners.
- About 36% of all households are non-owners. Compared with owners, they are generally much poorer, have higher housing costs, and are more likely to be in material hardship.

Total wealth has been increasing…

The Treasury's recent Long-Term Fiscal Statement (Treasury, 2021) showed how the wealth distribution has been changing over the last two decades. Important aspects of wealth include how it is distributed by age, as people generally accumulate wealth over their working life, and homeownership, as housing is a major component of wealth in New Zealand.

Figure 1 shows that between 2001 and 2018, total wealth increased, and that older people gained relatively more than younger people. The 2001 distribution had quite a flat distribution of wealth for older people, whereas in 2018 wealth generally kept increasing for older people throughout retirement. Indeed, the number of people aged 65 and older in the top wealth quintile increased from around 30% to about 50%. This will have had multiple causes, including changing aspects of the housing market over time (including house prices and interest rates) and capital gains accruing to certain cohorts more than others. Changes in the labour market may have also played a role.

Figure 1: Median wealth by age in 2001 (red) and 2018 (blue)



Note: Solid lines are smooth fits through the individual data points.

Sources: 2021 Long-Term Fiscal Statement (Treasury, 2021), which used data from Household Savings Survey 2001, Household Economic Survey 2014/2015 and 2017/2018. Differences in survey sampling methodology were accounted for, but differences in survey questions and definitions may explain some of the remaining differences.

And housing is an important component of household wealth

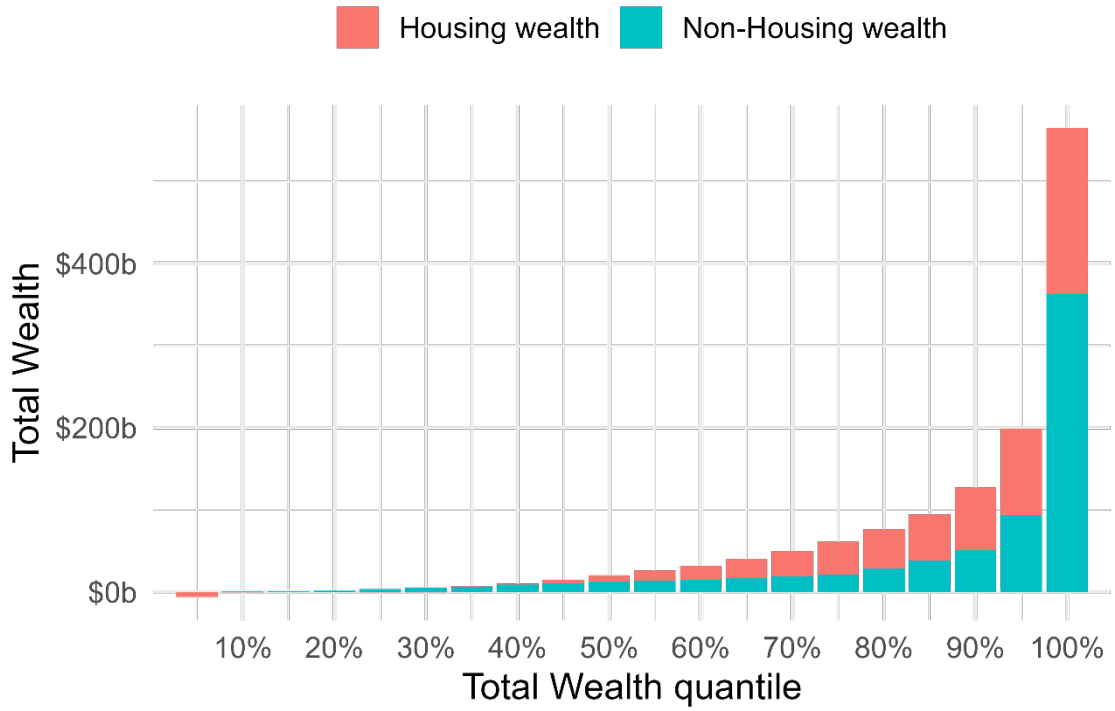
The wealth distribution in New Zealand is unequal (Rashbrooke, Rashbrooke, & Molano, 2017). Part of this is due to life-stage effects, which have a big impact on what assets and liabilities you might own.

A certain level of wealth inequality might be expected between young people and old people, as people generally accumulate wealth over their working life, including moving into homeownership. We find that younger people are more likely to be renters and in the bottom half of the household wealth distribution, while older people are more likely to be homeowners and in the top 50% of households.

Housing wealth is the largest and most widely held type of wealth in New Zealand, as Figure 2 shows. Housing wealth is valued using house prices, and these have been rising quickly for several years. Since June 2018, the median house price in New Zealand had annual growth of 4.5%, 8.9%, and 27.9%, for a total increase of 46% between June 2018 and June 2021 (Source: REINZ). Over the last two decades, the house price index (which incorporates market activity) had average growth of 7.2% each year.

The wealth of the richest New Zealanders is a special case, as along with housing and property they own much of New Zealand's business and financial wealth. Non-housing assets are the main component of their wealth, including shares in the stock market. Between June 2018 and June 2021, the S&P/NZX 50 index increased each year by 15.2%, 9.1%, and 12.9% respectively, for a total increase of 45% (Source: S&P Global). While total growth in shares looks similar to total growth in median house prices over the last three years, the stock market has been more consistent year to year.

Figure 2: The 2018 wealth distribution



Source: Household Economic Survey 2017/18.

One way to measure how evenly wealth is distributed is to calculate the Gini coefficient. The Gini coefficient is a measure of relative inequality, which is high when a small number of households hold a large percentage of total wealth. The Gini coefficient is explained in greater detail in an annex to this Analytical Note.

We estimate a baseline Gini coefficient for total household wealth in 2018 of 70.8% ± 1.8%. Housing wealth, with a Gini coefficient of 73.7% ± 1.7%, is slightly more evenly distributed across all households than non-housing wealth, which has a Gini coefficient of 76.0% ± 1.6%. Housing and non-housing wealth are both more unequal than total wealth, due to households not all holding similar proportions of each type of wealth[1].

Over the last couple of decades, total housing wealth has increased much more than non-housing wealth. Between 2000 and 2013, housing's share of total wealth increased from 38% to 57%, while the proportion of households owning houses fell from around 67% to around 65% (Irwin & Irwin, 2018). Measuring wealth inequality is difficult (Crampton, 2019), but previous studies have found broadly similar values for the Gini coefficient of adult wealth, with most studies measuring between 65 and 75%. Initially, the adult wealth Gini coefficient appears to have increased slightly (becoming more unequal) from 2004 to 2006 (Le, Gibson, & Stillman, 2012). However, in the last decade it appears to have been slowly decreasing (becoming more equal), trending down by an average 0.5 percentage points per year since 2010 (Source: Credit Suisse Global Wealth reports, author's calculations).

[1] For example, two households may have equal total wealth ranking, but one household might have all their wealth in housing (increasing the housing Gini coefficient) while the other has more non-housing wealth (increasing the non-housing Gini coefficient).

House price growth decreases the overall Gini coefficient …

Given that so many households have housing wealth it is not immediately obvious how rising house price increases might affect total wealth inequality. One way to analyse the effect of house prices on wealth inequality is to think about what would happen if the value of all housing assets went up by the same amount overnight, while all other assets and liabilities stayed the same, and there were no changes in ownership[2].

We simulated this thought experiment using the 2017/2018 wealth data from the Household Economic Survey, and measured household wealth inequality with the Gini coefficient (which is 0% for full equality, and 100% for maximum inequality).

The results are shown in Table 1, which shows the changes in the Gini (and confidence intervals) for the population as a whole and for key population subgroups. Across the whole population, we found that a 10% increase in house prices causes an estimated 0.6 to 0.8 percentage point drop in the Gini coefficient (from 70.8% to 70.1%).

Table 1: Effect of house price growth on the Gini coefficient

	Total Population	Within Owners	Within Non-owners	Between Owners and Non-owners
Baseline Gini	70.8% ± 1.8%	59.5% ± 2.2%	82.5% ± 4.2%	86.4% ± 1.3%
Inflated Gini	70.1% ± 1.8%	58.3% ± 2.3%	82.5% ± 4.2%	86.7% ± 1.3%
Change	-0.7% ± 0.1%	-1.3% ± 0.1%	0.0% ± 0.0%	0.3% ± 0.1%

Source: Author's calculations based on HES 17/18

This may seem surprising. How can it be that there is a fall in wealth inequality when house prices grow? Partly, this is because the people at the top of the wealth distribution have so much of their wealth in businesses and investments. A uniform increase in housing wealth lets the less-wealthy middle class catch up with them, lowering relative inequality within homeowners.

The Gini for homeowners falls from 59.5% to 58.3%, and because of the large share of the population who own homes this effect dominates everything else going on. As Table 2 shows, in 2018 homeowners made up 64% of the total population and owned 92% of total wealth.

Table 2: Population shares of house owners and non-owners

Populations	Population Share	Wealth Share
Owners	64% ± 1%	92% ± 2%
Non-owners	36% ± 1%	8% ± 2%

Source: Author's calculations based on HES 17/18

[2] This is a rather heroic assumption as there are many possible flow-on effects to an increase in gross housing wealth; eg, rents, mortgages, other asset prices, and behaviours may all change over time as a result. But as a first approximation we consider wealth inequality at a single point in time before any flow-on impacts have occurred.

But this masks a widening of inequality between existing homeowners and non-owners

But Table 1 also shows something else going on. The relative gap between homeowners and renters increases when housing wealth increases, from 86.4% to 86.7%.

Renters, who are predominantly younger and poorer, become relatively less wealthy. Homeowners, who are predominantly older and richer, become relatively wealthier. Because there are more homeowners than non-owners, this increase in wealth inequality is hidden when looking at the combined total population.

All our results look similar in direction when we simulate larger house price increases, but the inequalities begin to approach limiting values as housing assets become the dominant component of wealth.

The inequality among homeowners trends towards a minimum of 46.5% ± 2.5%, equal to the Gini coefficient of homeowner housing assets. The total population Gini coefficient moves towards a lower bound of 66.4% ± 1.9%, set by the distribution of housing assets and the relative population of owners and non-owners. Meanwhile, inequality between homeowners and non-owners moves slowly towards 100%, as housing assets start to overshadow non-owner wealth.

Our results also look similar if we increase housing and shares at the same time, or if we include commercial property with housing. In each case, we find that the relative gap between asset owners and non-owners widens.

And should be seen in the light of differences in material hardship and high housing costs

The measures of wealth inequality above do not tell us about the potential flow-on impacts. For example, in this analysis we have not considered how an increase in the relative wealth of homeowners compared with non-owners might affect household spending or saving. However, we can look at how ownership or non-ownership of housing is already associated with being in difficult life circumstances, to understand why we might be concerned about an increase in the gap between housing owners and non-owners.

Here we focus on households who are in material hardship (DEP-17) or who have high housing costs (greater than 40% of disposable income), as two key indicators of wellbeing. We compare the differences between homeowners and non-owners, to show how the existing wealth disparity between these two groups correlates with households being in these unfavourable circumstances.

We find that around 6% of households are non-owners in material hardship. These households have approximately zero wealth, and they are clustered near the bottom of the wealth distribution (see Figure 3). There are only 1% of households who own housing and are also in material hardship, and they are clustered around the middle of the wealth distribution. This shows there is a strong correlation between non-ownership of housing and being in material hardship.

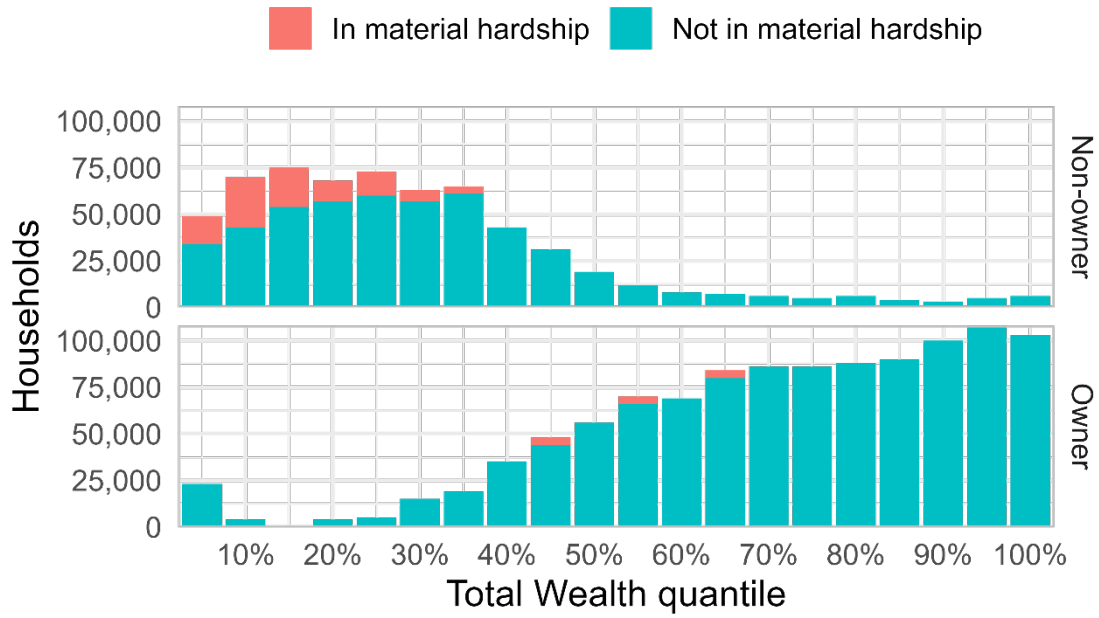
Material hardship is a multi-dimensional and qualitative indicator, which makes it hard to say how an increase in house prices might affect it. There are outstanding questions regarding the drivers of material hardship, including the potential links with high housing costs and low incomes, to help understand how people might move into or out of material hardship.

Table 3: Incidence of hardship

Populations in Hardship	Population Share	Wealth Share
Owners	1% ± 0%	1% ± 0%
Non-owners	6% ± 1%	0% ± 0%

Source: Author's calculations based on HES 17/18

Figure 3: Distributions of households in material hardship by total wealth quantile



Source: Author's calculations based on HES 17/18.

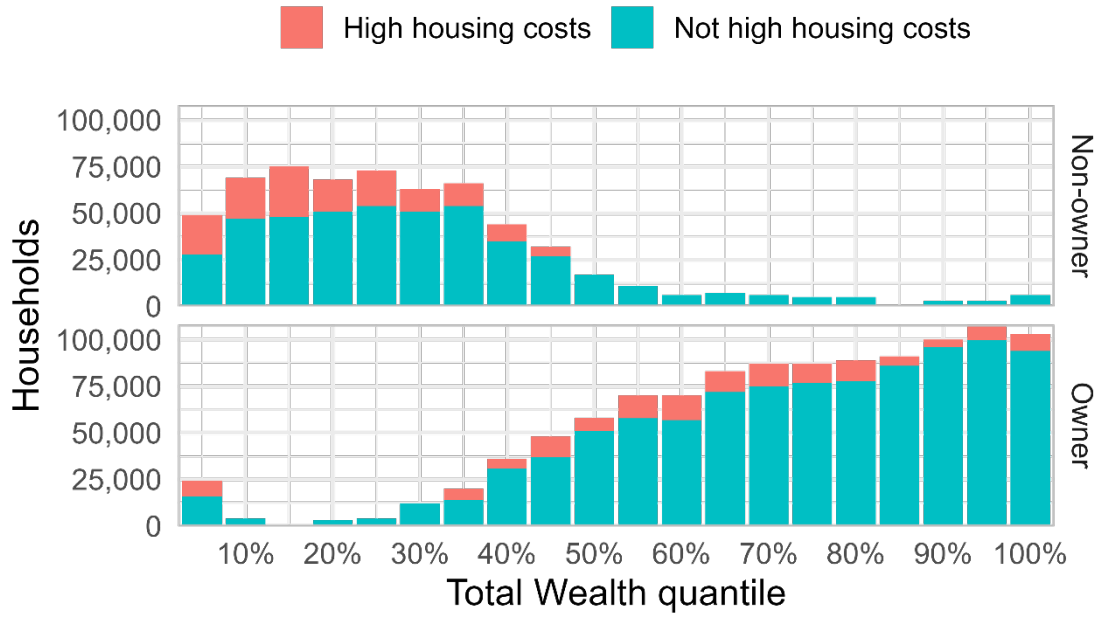
Nonetheless, looking at household housing costs we find that non-owners are almost twice as likely as owners to have high housing costs. Non-owner households with high housing costs also have very low wealth, as Table 4 and Figure 4 show. While the drivers of owners' and renters' high housing costs may differ (for example, in some cases owners may choose to have high housing costs to pay down their mortgage faster), this suggests that there is a relationship between non-ownership of housing, high rental costs, and living in material hardship, which is relevant to any discussion on how increasing house prices may be making it harder for non-owners to get onto the first rung of the wealth ladder in New Zealand.

Table 4: Incidence of high housing costs

Housing Costs	Populations	Population Share	Wealth Share
Low	Owners	57% ± 1%	82% ± 3%
	Non-owners	28% ± 1%	7% ± 2%
High	Owners	8% ± 1%	10% ± 3%
	Non-owners	8% ± 1%	1% ± 0%

Source: Author's calculations based on HES 17/18

Figure 4: Distribution of households with high housing costs by total wealth quantile



Source: Author's calculations based on HES 17/18

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Annex: Method, Data, and IDI Disclaimer

Method

We first consider the following concepts: the household wealth distribution; the effect on wealth of house price increases; and how to measure wealth inequality using the Gini coefficient. Using these concepts, our method is then as follows:

1. Calculate the Gini coefficient of the baseline wealth distribution.
2. Apply a housing price shock to the baseline and calculate the Gini coefficient of the inflated distribution.
3. Split the population into owners and non-owners of housing, giving three component Gini coefficients. Calculate these for both distributions.
4. Finally, compare non-owners with owners by their share of population, share of wealth, housing costs, and material hardship status.

Definition of wealth

We define total wealth as assets minus liabilities, $W = A - L$. We take the household as our base unit of analysis and use the modified OECD equivalisation scale to adjust for different household sizes[3]. Wealth inequality is then a question of how unequally this wealth is distributed. Since wealth can be negative, we need to be careful in choosing our measures of wealth inequality – many measures used for analysing income inequality do not work or have different behaviour in the presence of negative values.

There is a certain amount of inequality in the wealth distribution related to accumulation over time, which may be seen as normal and desirable by society, as long as there is sufficient mobility, ie, such that young people are highly likely to progress from low wealth to high wealth throughout their life. Measuring this life-time wealth effect would require a longitudinal data source to see how wealth changes over time for various cohorts.

In this analysis, we consider a cross-sectional point-in-time snapshot of the wealth distribution, as measured by HES 2018 (see "Data" section below). We consider the "next-day" effect of changes applied to components of the wealth distribution. We do not model any behavioural responses, nor consider the effects on life-time wealth dynamics, and we assume that everyone continues to hold the same assets and liabilities that they start with.

An important point is how we define housing assets and liabilities. From the HES wealth categories, we consider housing to be "owner-occupied dwellings" and "Other residential real estate", including such wealth held by households and by trusts related to households. We categorise "Non-residential real estate (including commercial)" and "Land only" wealth as non-housing wealth, since they do not consist of residential housing.

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[3] There is no consensus view in the literature on whether to equivalise household wealth or which equivalence scale to use. We use the modified-OECD equivalence scale in this analysis to better compare wealth with housing costs and material hardship status, however this considers wealth as an economic resource for current consumption (Kuypers, Figari, & Verbist, 2021; OECD, 2013). We compared two alternative equivalence scales used by (Palomino, Marrero, Nolan, & Rodríguez, 2020): $E = \sqrt{(number\ of\ people)}$; $E = 1 + \sqrt{(number\ of\ adults - 1)}$; and found they gave slightly different Gini coefficient levels, but very similar results for the changes in each Gini coefficient.

Another important category of wealth is business property wealth, but we consider this as non-housing wealth too. We use the wider category of "property" wealth (including household, trust, and business property) to carry out a sensitivity analysis of our key results, to check they are robust to housing versus property. We also include household wealth in shares with housing wealth in our sensitivity analysis, to further check the robustness of our housing results.

Changes in wealth

In relation to house price increases, there are various causes and flow-on effects of house price increases, but here we restrict our analysis to the immediate impact on existing household owners of housing, ie, an increase in nominal housing wealth.
From a snapshot of the wealth distribution, we assume changes in housing wealth are uniform across the whole distribution, given by:

$$\Delta W_{housing} = \Delta A_{housing} = \Delta(House\ Prices) \times \left(A_{housing}\right)_{initial}$$

We set $\Delta(House\ Prices)$ to a hypothetical arbitrary value and analyse the resulting inflated wealth distribution.

Measuring wealth inequality

How do we measure wealth inequality? We often try to condense the full distribution down to a single number. This hides the complexity of who gains and who loses from changes in the wealth distribution. It is also important to consider what we mean by a gain and a loss when comparing households – for example, does someone "win" if their wealth grows proportionally more than someone else's wealth? Or does someone "lose" if they fall behind in dollar terms?

One widely used inequality measure is the Gini coefficient. This measures wealth inequality as the ratio of the mean wealth gap Δ (ie, the average difference between any two pairs) to twice the mean wealth μ (ie, the average over the whole distribution), and ranges from 0% for complete equality to 100% for complete inequality (see Box 1 for more technical details).

A potential limitation of the Gini coefficient is that the numerator and denominator may both change independently. For example, if mean wealth increases faster than the mean wealth gap, then the Gini coefficient will go down, even though in dollar terms the average gap between rich and poor increased. There are many other inequality measures, which have their own strengths and weaknesses. For example, another common measure is the Atkinson index, which has recently been used to analyse income inequality in New Zealand (Creedy, 2021).

The Gini coefficient is a measure of relative wealth inequality: it is unchanged if everyone gains by the same relative (percentage) amount. This means it decreases if everyone gains the same absolute (dollar) amount, since the poor will gain more as a percentage of their wealth than the rich. In contrast, the mean wealth gap is a measure of absolute inequality: it is unchanged if everyone gains by the same absolute amount. This means it increases if everyone gains by the same relative amount, since the rich will gain more dollars than the poor.

Box 1: Defining the Gini coefficient

We define the Gini coefficient as the ratio between the mean wealth gap (mean absolute difference in wealth between all pairs of households) and twice the mean wealth (which is the maximum wealth gap between pairs of households).
Let $x = (x_1, \dots, x_n)$ be survey samples of household wealth, with corresponding survey weights $w = (w_1, \dots, w_n)$, such that the total population is $N = \sum_{i=1}^{n} w_i$. Then:

$$Mean\ Wealth\ Gap = \Delta = \frac{1}{N(N-1)} \sum_{i=1}^{n} \sum_{j=1}^{n} w_i w_j |x_i - x_j|, \quad (1)$$

$$Mean\ Wealth = \mu = \frac{1}{N} \sum_{i=1}^{N} w_i |x_i|,$$

$$Gini\ Coefficient = G = \frac{\Delta}{2\mu}.$$

We use mean *absolute* wealth to account for negative wealth when calculating the Gini coefficient, which keeps it normalised between 0 and 1 (Raffinetti, Siletti, & Vernizzi, 2015; Raffinetti, Siletti, & Vernizzi, 2017). Also, our wealth gap formula (Equation 1) divides by $N(N-1)$ (ie, the number of pairs, not including each sample with itself) in order to fully account for the finite sample size (Larraz B. , 2015).

Given a grouping of total population X into two sub-populations A and B, we can decompose the total Gini coefficient into within-group and between-group Gini coefficients (Dagum, 1998). The component Gini coefficients do not directly sum to the total Gini coefficient, rather they must be weighted as:

$$G_{Total} = \lambda_A G_A + \lambda_B G_B + \lambda_{AB} G_{AB},$$

where $\lambda_A = \frac{N_A(N_A-1)\mu_A}{N(N-1)\mu_{Total}}$, $\lambda_B = \frac{N_B(N_B-1)\mu_B}{N(N-1)\mu_{Total}}$, and $\lambda_{AB} = \frac{N_A N_B(\mu_A+\mu_B)}{N(N-1)\mu_{Total}}$.

Note that G_A and G_B are the Gini coefficients of each sub-population $a = (a_1, \dots, a_{n_a})$ and $b = (b_1, \dots, b_{n_b})$, with corresponding survey weights w_a and w_b such that $N_A = \sum_{i=1}^{n_a} w_{a_i}$ and $N_B = \sum_{i=1}^{n_b} w_{b_i}$. The remaining term, G_{AB}, is the extended Gini coefficient between the two sub-populations, defined by

$$G_{AB} = \frac{\Delta_{AB}}{\mu_A + \mu_B}, \qquad \Delta_{AB} = \frac{1}{N_A N_B} \sum_{i=1}^{n_a} \sum_{j=1}^{n_b} w_{a_i} w_{b_j} |a_i - b_j|.$$

Inequality within and between groups

The impact of house prices on wealth inequality can be understood by considering who owns housing assets. Many households are housing owners, with a smaller but still sizeable number being non-owners. When measuring inequality, it can be helpful to decompose total inequality into the effect of different subgroups within the total population. In this analysis, we use a decomposition of the Gini coefficient into contributions from inequality within housing owners, within non-owners, and between owners and non-owners:

$$G_{total} = \lambda_{own} G_{own} + \lambda_{non-own} G_{non-own} + \lambda_{between} G_{between}.$$

Box 2: Efficient formula for calculating the wealth gap

Let $x = (x_1, \dots, x_n)$ be survey samples of household wealth, sorted in non-decreasing order, with corresponding survey weights $w = (w_1, \dots, w_n)$, such that the total population is $N = \sum_{i=1}^{n} w_i$. The sum inside the wealth gap formula (Equation 1, Box 1) can then be written as:

$$\sum_{i=1}^{n} \left(\sum_{j=1}^{j \le i} w_i w_j (x_i - x_j) + \sum_{j \ge i}^{n} w_i w_j (x_j - x_i) \right)$$

$$= \sum_{i=1}^{n} \left(\sum_{j=1}^{j \le i} w_j - \sum_{j \ge i}^{n} w_j \right) w_i x_i + \sum_{i=1}^{n} w_i \left(\sum_{j \ge i}^{n} w_j x_j - \sum_{j=1}^{j \le i} w_j x_j \right).$$

We can rewrite the second term as:

$$\sum_{i=1}^{n} w_i \left(\sum_{j=1}^{n} sgn(j-i) w_j x_j \right) = \sum_{j=1}^{n} \left(\sum_{i=1}^{n} sgn(j-i) w_i \right) w_j x_j,$$

Where $sgn(j-i)$ is 1 for $j > i$, -1 for $j < i$, and 0 for $j = i$.
Upon swapping summation index labels, we find this is the same as the first term. We can rewrite the remaining inner sum as:

$$\sum_{j=1}^{j \le i} w_j - \sum_{j \ge i}^{n} w_j = 2W_i - N - w_i,$$

where $W_i = \sum_{j=1}^{i} w_j$ is the partial sum of the first i weights. Then we have the result:

$$\Delta = \frac{1}{N(N-1)/2} \sum_{i=1}^{n} (2W_i - N - w_i) w_i x_i.$$

This generalises the symmetric formula derived in (Thon, 1982) and explored in (Gastwirth, 2017), to handle weighted survey data.

Data

Our input wealth data comes from the Household Economic Survey (HES) in 2018. It includes detailed breakdowns into various components of wealth (eg, property, financial, and physical assets and liabilities) including from household-related trusts and businesses. We have unit-record data at the individual, family, and household level for approximately 3000 representative households. We link this wealth data with the output of running the Treasury's TAWA (Tax and Welfare Analysis) model with HES 2018, which extends the dataset to include various components of disposable income, and we also link material wellbeing data from HES 2018 to calculate indicators of material hardship.

We have used TAWA's calibrated survey weights instead of the HES survey weights. This means we benchmark the population to the 2018 March-end tax year, rather than the 2018 June-end HES year, and we also incorporate benchmarks of populations receiving a main benefit.

HES 2018 represents the most up-to-date wealth microdata available to us at the time of analysis. The next household wealth survey (HES 2021) is currently in the field and this will provide us with newer data on the wealth distribution, including the impact of COVID-19 so far.

Due to survey size limitations, HES 2018 has high sample errors. It also has significant under-reporting, particularly for high-wealth individuals. Besides under-reporting of respondents, the data is known to miss out the top tail of the wealth distribution entirely. For example, the maximum wealth in the survey data is around $25 million, however the National Business Review have historically reported a list of individuals with net worth estimated to be over $50 million.

In the survey data, we see some households with negative wealth. Most of these have housing liabilities which are significantly larger than their housing assets, which does not seem realistic. It is possible there is under-reporting at the bottom of the distribution as well as at the top. Another issue is that respondents may have trouble accurately valuing their assets and liabilities. Housing assets in particular will likely be undervalued because they are recorded at rateable value, rather than market value. We have not made any adjustments for these issues in this analysis.

Compared with aggregate wealth measures from Statistics NZ and the Reserve Bank of New Zealand, the HES 2018 data misses a significant proportion of wealth in New Zealand. There are initiatives to improve the quality of the data, especially at the top end. Our approach is to analyse the data as-is, with the understanding that any changes to the initial input data may change our results.

IDI Disclaimer

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit https://www.stats.govt.nz/integrated-data/. The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. 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.