



AN ONGOING SNAPSHOT
OF FINANCIAL WELLBEING
IN NEW ZEALAND

MARCH 2020

POWERED BY



ROY
MORGAN



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FOREWORD

FINANCIAL WELLBEING

Financial wellbeing is an important contributor to overall health and wellbeing and has a major influence over the lives of every New Zealander. The ability to manage unexpected expenses, achieve our goals and have the freedom to make the choices we want in life all depend on our level of financial wellbeing.

Every one of us benefits in an environment that encourages and supports people's financial wellbeing, whether this be on an individual, whānau, business, or societal level. As we move into a period of economic uncertainty in the midst of the global COVID-19 pandemic, it is important that we have data capturing how New Zealanders are feeling about their finances.

The data captured in this report compares June 2019 with December 2019. The results show that going into the COVID-19 crisis, 56% of New Zealanders felt they had the financial resilience to cope with a significant expense or loss of income. COVID-19 will have an economic impact larger than most people would have anticipated when answering the question. The next set of data, which will be provided in late 2020, will show how well New Zealanders actually fared through this period and provide important information about our financial resilience.

Financial wellbeing is an area that we have long recognised we play an important role in, and one of the ways that we can demonstrate our commitment to this cause is through the introduction of the ANZ Financial Wellbeing Indicator (FWI).

We hope that the ANZ FWI will become an important, statistically robust six-monthly snapshot of the personal financial wellbeing of New Zealanders. The report is informed by data from the weekly Roy Morgan Single Source survey of 7,000 New Zealanders.

ANZ New Zealand has partnered with Roy Morgan to replicate key financial wellbeing questions from our 2017 ANZ Financial Wellbeing Survey. We have committed to further evolving our understanding of financial wellbeing through a full academic survey every three years, ensuring our approach is up-to-date and considering the latest international thinking on the subject of financial wellbeing.

We see the ANZ FWI playing a unique role in tracking financial wellbeing over time and highlighting potential areas where greater action could be taken to improve financial wellbeing. This indicator will provide time series data on a previously untracked dimension of how New Zealanders are faring. It will complement existing measures such as the ANZ Roy Morgan Consumer Confidence Rating, and triangulate with other relevant data sources such as the Reserve Bank of New Zealand (RBNZ) and Stats NZ on lending and savings behaviour.

The Roy Morgan Single Source survey enables us to amplify the results of our 2017 survey and examine financial wellbeing at a much more granular level. This allows us access to important new insights across local geographies and for different population demographics.

Key summary insights from the ANZ FWI will continue to be published every six months. This initial report sets out the context of ANZ's previous financial wellbeing research, the methodology for development of the ANZ FWI, and a range of key insights arising from the time-series data.

Future instalments will focus on emerging issues of interest to assist policy-makers, businesses, and civil society to closely monitor macro-economic impacts and develop appropriate actions to build the financial wellbeing of individuals and the nation.



Peter Parussini
Head of Corporate Affairs
ANZ New Zealand

EXECUTIVE SUMMARY

ANZ has partnered with Roy Morgan to replicate key financial wellbeing questions from the 2017 ANZ Financial Wellbeing Survey¹. The ANZ Financial Wellbeing Indicator provides an overview of the personal financial wellbeing of New Zealanders, and is intended to act as a 'pulse check' on how we, as a nation, are feeling about our financial wellbeing.

The three dimensions assessed by the survey to determine financial wellbeing are:

- Being able to meet financial commitments;
- Feeling comfortable about our financial situation; and
- Financial resilience - the ability to weather an unexpected event that impacts our finances.

The key finding from the December 2019 data is that New Zealand's overall financial wellbeing score increased

by 0.3 points in comparison with June 2019. Furthermore, the percent of participants who reported having "no worries" about their finances, which reflects the sector with the highest level of financial wellbeing, increased from 20.9 per cent of the sample population to 26.3 per cent.

These findings indicate that at a high level, New Zealanders were in general feeling okay about their financial situation in December 2019.



56%

OF NEW ZEALANDERS
FEEL THEY CAN COPE
WITH A SIGNIFICANT
LOSS OF INCOME

BACKGROUND

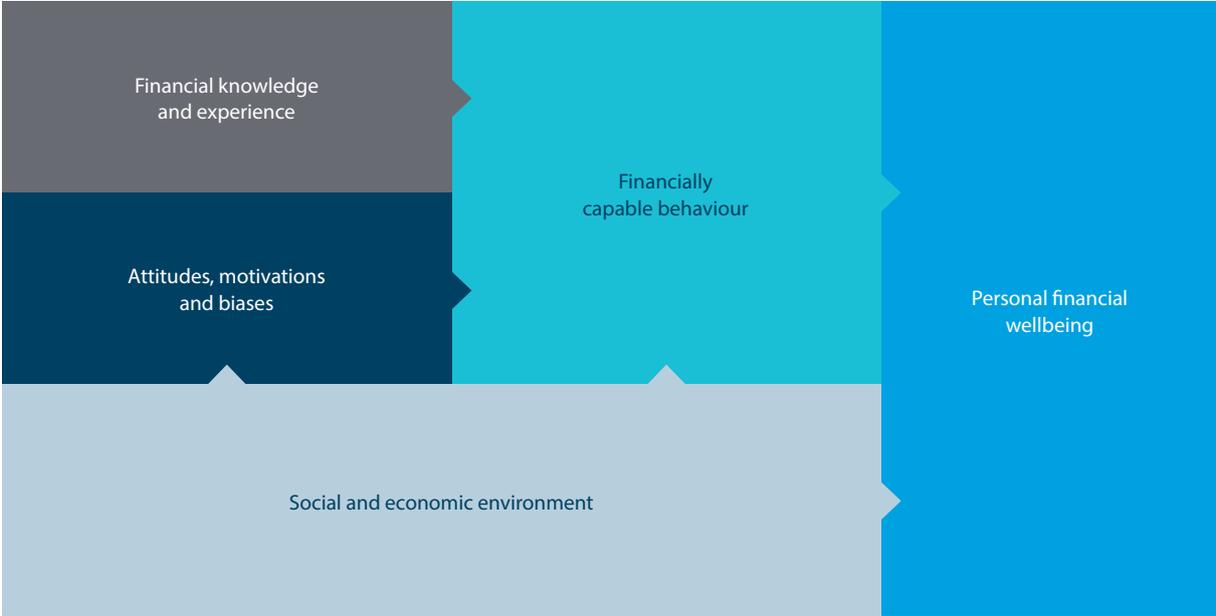
The 2019 ANZ Financial Wellbeing Indicator reveals, for the first time, a time-series measure of New Zealand’s financial wellbeing. ANZ has partnered with Roy Morgan to replicate key financial wellbeing questions from the 2017 ANZ Financial Wellbeing Survey². This robust six-monthly snapshot of the personal financial wellbeing of New Zealanders identifies key questions from that survey and applies them to proxies within the weekly Roy Morgan Single Source survey of 7,000 New Zealanders annually.

THE 2017 ANZ FINANCIAL WELLBEING SURVEY

The 2017 ANZ Financial Wellbeing Survey was designed to investigate key drivers of financial wellbeing in Australia and New Zealand, enabling comparison of financial wellbeing in those countries with Norway³ and others. The design and initial analysis was guided by the Financial Wellbeing Conceptual Model of Kempson et al., (Figure 1) taking into account the interrelationship between five key areas that influence financial wellbeing:

- Social environment
- Economic environment
- Financial knowledge and experience
- Psychological factors (attitudes, motivations and biases)
- Financially capable behaviour

FIGURE 1: FIVE DOMAINS OF KEMPSON FINANCIAL WELLBEING MODEL



¹ ANZ (survey conducted in December 2017, report published 2018): Financial Wellbeing: A survey of adults in New Zealand (www.bluenotes.anz.com/financialwellbeing)

² ANZ (survey conducted in December 2017, report published 2018): Financial Wellbeing: A survey of adults in New Zealand (www.bluenotes.anz.com/financialwellbeing)

³ Norwegian survey, Kempson, Elaine & Finney, Andrea & Poppe, Christian (2017). Financial Well-Being A Conceptual Model and Preliminary Analysis. 10.13140/RG.2.2.18737.68961, is a landmark study in financial wellbeing

The questions were designed to calculate scores for three dimensions of 'overall financial wellbeing':

- **Meeting everyday commitments:** For example, 'How often do you run short of money for food and other regular expenses?'
- **Feeling comfortable:** For example, 'How well do you think this statement fits you personally – My finances allow me to do the things I want and enjoy in life?'
- **Resilience for the future:** For example, 'If your income fell by a third, for how long could you meet all your expenses without needing to borrow?'



Single scores for each dimension were then combined to create an overall financial wellbeing score out of 100.

THE ANZ FINANCIAL WELLBEING INDICATOR 2019

In order to provide ongoing measures of personal financial wellbeing in Australia and New Zealand, ANZ partnered with Roy Morgan in 2018 to develop and publish a new measure called the ANZ FWI, based on the existing framework in the 2017 Survey.

ANZ and Roy Morgan initially modelled financial wellbeing using the Roy Morgan Single Source dataset with a replication of the eleven key questions from the 2017 Survey. As in 2017, each individual respondent is given a score (out of 100) for their answers to a series of questions related to each of these dimensions which are then combined to determine the individual's financial wellbeing.⁴

An existing large-scale data and survey collection vehicle was required to provide a robust and ongoing time series (including a back series) indicator of financial wellbeing in Australia. The Roy Morgan Single Source data was the preferred option because:

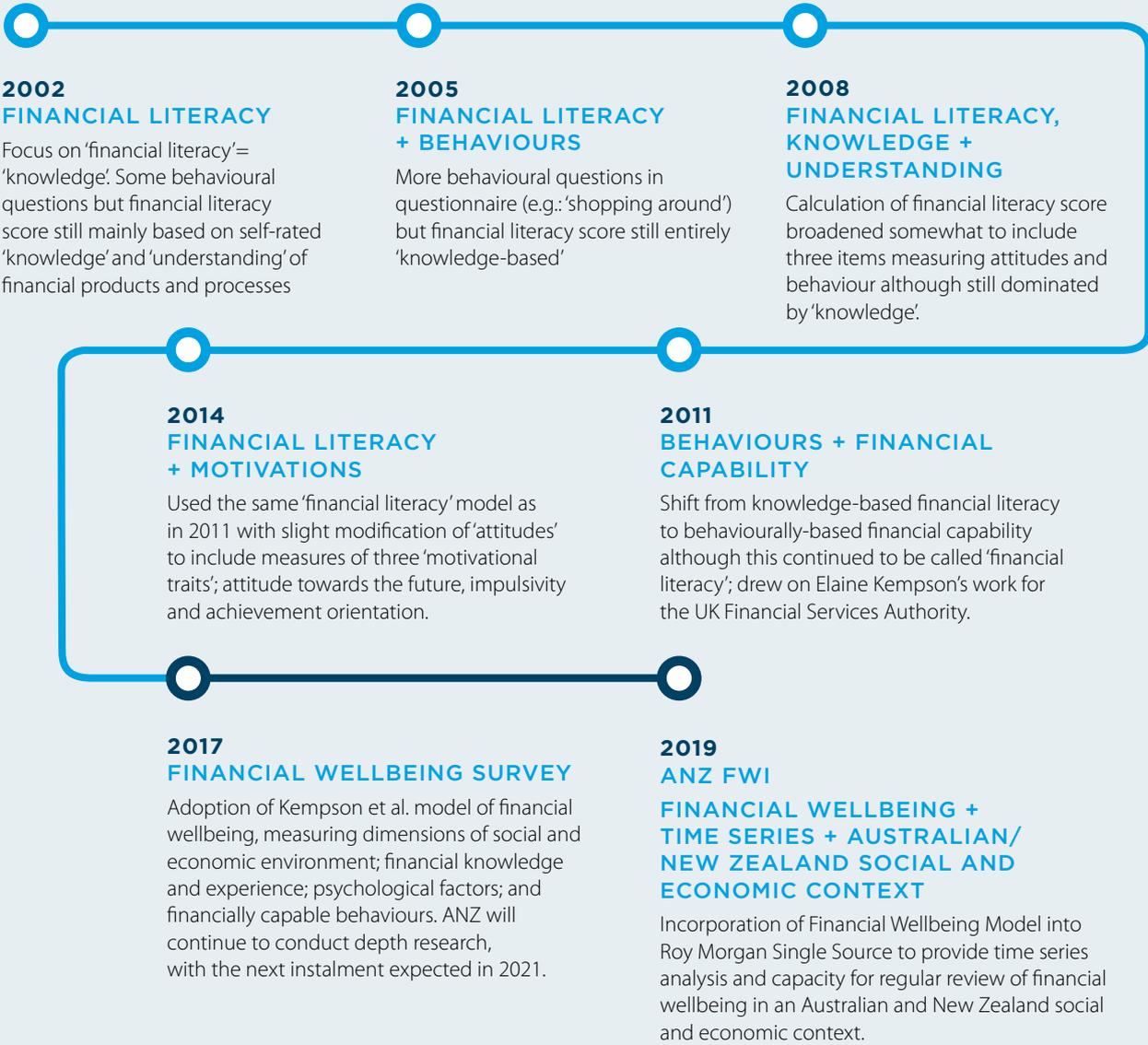
1. It collects a broad dataset on financial services, product utilisation and behaviour.
2. It is the only large scale random sample research program in Australia and New Zealand, outside of Stats NZ and the TV ratings measurement program.⁵
3. It collects data on how people feel about their financial outlook, along with other relevant attitudes and lifestyle preferences.

⁴ The overall financial wellbeing score outlined in the ANZ FWI is an average score for all respondents at a given time. In order to smooth out any short-term fluctuations due to sample and non-sample errors that exist in all survey data, and to highlight any long-term trends or cycles, all ANZ FWI scores and associated measures are reported as rolling 12-month averages, however for the purposes of this report 12 months of data will be used (Jan19-Dec19).

⁵ A random sample is a sample where all households have an equal probability of being included in the study.

ANZ FWI research⁶ has been triangulated with other data from a variety of population data sources such as the Australian Prudential Regulation Authority (APRA) and the Reserve Bank of Australia (RBA) on lending and savings behaviour in Australia and Stats NZ, RBNZ and Inland Revenue for income, savings and expenditure in New Zealand.

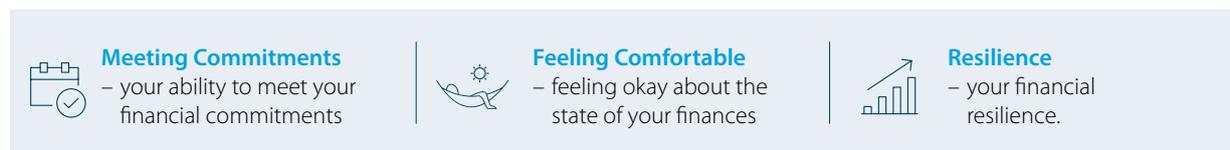
FIGURE 2: EVOLUTION OF ANZ FINANCIAL-LITERACY AND WELLBEING SURVEYS



⁶ The survey also collects extensive data on media consumption habits, brand and product usage, purchase intentions, retail visitation, service provider preferences and recreation and leisure activities, as well as detailed demographics, geo-demographics and lifestyle metrics.

METHODOLOGY – CREATION OF THE 2019 ANZ FINANCIAL WELLBEING INDICATOR

Financial wellbeing is a complex, multi-faceted issue. There are three key dimensions to an individual's financial situation that, when taken together, create a broad understanding of a person's financial wellbeing. These are:



We developed the Indicator by developing measures for each of the above dimensions.

COMPONENTS OF THE INDICATOR

The final components of the indicator and weightings are proprietary to ANZ. The final components are based on a weighting of a range of:

- Balances in specific product categories
- Feelings about the present and the future financial outlook
- Assessment of resilience.

The financial wellbeing of Roy Morgan Single Source survey participants' is assessed by asking questions to understand their attitude and capability in the areas listed above, which is then distilled into a score from 0 to 100.

The three dimensions each contribute equally to the participants' scores, and combine to form the overall ANZ FWI. The ANZ FWI score ranges from 0 to 100. The higher the overall score, the higher the level of financial wellbeing.

ANZ FWI scores are benchmarked against a 'perfectly scored individual' – a hypothetical person who scores in the highest possible range for every variable. While rare in reality, this hypothetical person offers a useful basis for comparison. This individual:

- Has high income;
- Has high levels of savings;
- Has no debt and either does not use credit cards or pays them off in full before any interest applies;
- Does not feel their level of debt is out of control;
- Is confident and exhibits positive attitudes, skills, and activities assessed in the survey.

ANZ FWI scores are relative: they allow comparisons across socio-demographic groups and geographic areas, and over time.

EXPANDING THE PICTURE OF FINANCIAL WELLBEING

Roy Morgan's rich, ongoing Single Source data means New Zealanders' financial wellbeing can be analysed (for the first time) across a wide range of relevant socio-economic and demographic categories, enabling comparisons over time.

DATA COLLECTION

The data used to compile the ANZ FWI originates from Roy Morgan's ongoing Single Source survey of approximately 7,000 New Zealanders annually. The New Zealand Single Source telephone interviewing is conducted on weeknights and weekends. Respondents are then invited to participate in the self-completion online survey.

THIS REPORT - A UNIQUE TIME SERIES

In addition to providing a quarterly measure of Financial Wellbeing for New Zealand, the use of Roy Morgan Single Source survey data has allowed for the development of historical analysis, reaching back to January 2015 in some instances, with the capacity to maintain this longitudinal perspective into the future.

In this report, we profile the progress New Zealanders are making in Financial Wellbeing. As a way to validate the ANZ FWI published here, we have triangulated key variables in the ANZ Roy Morgan dataset with official statistics to validate the signals of the indicator as well as review drivers of financial wellbeing from the indicator dataset using the Kempson model, as also validated in the ANZ 2017 research.

SEGMENTS OF FINANCIAL WELLBEING

We have replicated the Financial Wellbeing segments that were presented in the 2018 ANZ Financial Wellbeing Report. Indicator results are grouped into four score ranges, with each range representing a category of financial wellbeing, based on those defined in the 2017 ANZ Financial Wellbeing survey:



All ANZ FWI scores are subject to 'margins of error', depending mainly on the sample sizes on which they are based.



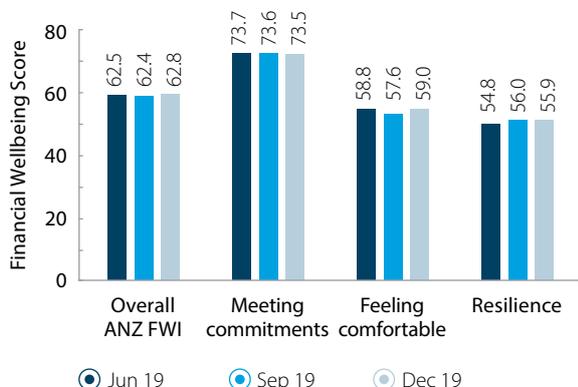
FINANCIAL WELLBEING IN NEW ZEALAND

With the ANZ FWI, we are now able to show that, with increasing income growth for wage and salary-earners (income growth has increased from 2.5% in the 12 months to March 2014 to 4.4% in the 12 months to June 2019)⁷, the financial wellbeing of New Zealanders has remained stable with a slight increase to 62.8 in the latest quarter to December 2019 from 62.5 in the quarter to June 2019.

Since June 2019, the ANZ FWI shows the following results in the dimensions of financial wellbeing measured:

- **Meeting commitments** – the ability to meet financial obligations in regard to bills and payments has slightly decreased from 73.7 to 73.5 (out of 100)
- **Feeling comfortable** – the belief that current and future financial circumstances will ensure that life can be enjoyed and is financially secure has increased slightly from 58.8 to 59.0 (out of 100)
- **Resilience** – the capacity to cope with significant unexpected expense or loss of income, demonstrated the largest improvement, from 54.8 to 55.9 (out of 100).

FIGURE 1 – OVERALL ANZ FWI AND DIMENSIONS



The slight 0.3-point increase in overall financial wellbeing from June 2019 to December 2019 can be attributed to the slight improvement in Resilience (0.3 point increase) (see Figure 2). 'Meeting everyday commitments' has seen a 0.07 point drop and 'feeling comfortable' has increased by 0.07 points.

FIGURE 2 – CONTRIBUTIONS TO CHANGES FROM JUNE 2019 TO DEC 2019



Figure 3 shows the percentages of the New Zealand population that fell into each segment in June 2019 and in December 2019. 'No worries', the segment reflecting the highest level of financial wellbeing, increased from 20.9 per cent of the population to 26.3 per cent, representing a 5.4 percentage point increase over that time. 'Struggling', the group with the lowest level of financial wellbeing, also increased from 7.5 per cent to 9.8 per cent of the population, representing a 2.3 percentage point increase.

FIGURE 3 – CHANGES IN THE COMPOSITION OF THE FINANCIAL WELLBEING SEGMENTS

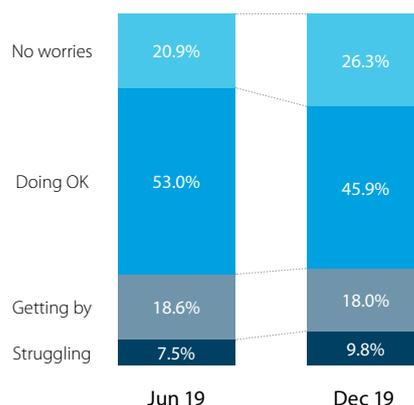


Fig 1-3 Source: Roy Morgan Single Source
Base: New Zealanders 14+; 3 month rolling averages, n=1618 (Apr2019-Jun2019), n=1668 (Oct2019-Dec2019)

⁷ NZ Inland Revenue data on wages

DRIVERS OF FINANCIAL WELLBEING

The 2017 ANZ Financial Wellbeing Survey established estimates for the relative importance of different drivers of financial wellbeing including: financial behaviours; financial knowledge and experience; psychological factors; and economic and social factors.

Outlined below are some key insights related to these drivers of financial wellbeing:

- Financial behaviours
- Psychological factors
- Economic Factors
- Social Factors
- Financial knowledge and experience

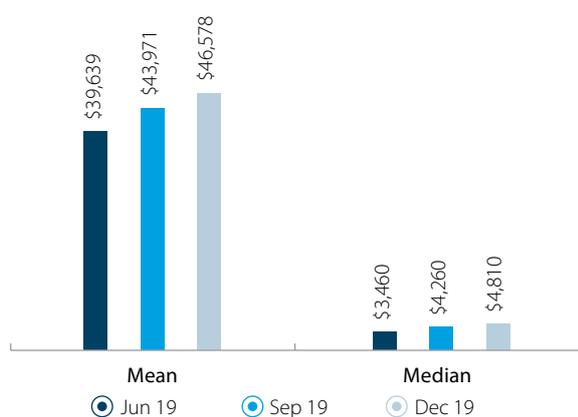
FINANCIAL BEHAVIOURS

Active Savings

New Zealanders had, on average, \$46,578 per capita in savings in December 2019. While the average is high (there are a number of people with very large amounts in savings, which brings the mean up), the median represents the mid-point of this distribution, which stands at \$4,810 per person in December 2019. This is comparatively higher than what was observed in the June 2019 results.

This finding is in line with the RBNZ Household Savings Per Capita statistics for New Zealanders, showing \$46,004 per capita as at September 2019.

FIGURE 4 - MEAN AND MEDIAN DOLLAR AMOUNT IN SAVINGS

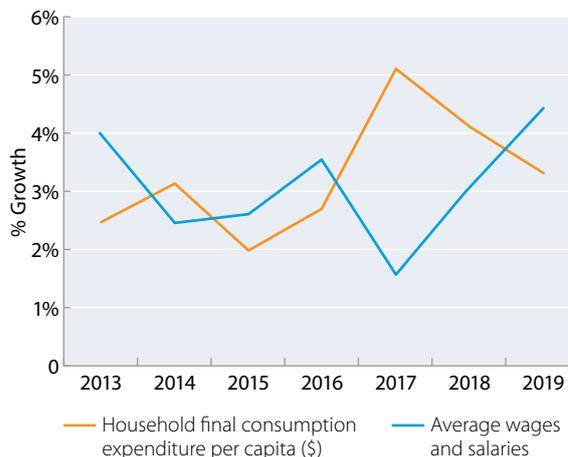


Source: Roy Morgan Single Source
 Base: New Zealanders 14+; 3 month rolling averages,
 n=1618 (Apr2019-Jun2019), n=1668 (Oct2019-Dec2019)

Spending Restraint

Another behaviour that drives financial wellbeing is Spending Restraint. New Zealanders have adapted to higher wage growth in recent years and have restrained their spending, as evidenced in Figure 5.

FIGURE 5 - NEW ZEALAND WAGE GROWTH AND HOUSEHOLD EXPENDITURE GROWTH



Source: NZ Inland Revenue, National Accounts (Income & Expenditure), year ended March 2019, NZ Statistics NZ Inland Revenue data on wages

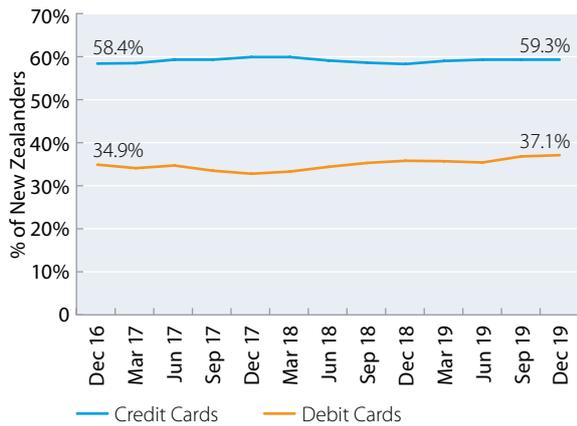
Not borrowing for everyday expenses

Not borrowing for everyday expenses is another essential behaviour for good financial wellbeing. The implication of this behaviour is obvious, as it ensures that people do not live beyond their means.

During the last five years, New Zealanders have appeared to continue to rely on both credit and debit cards. Over the period from December 2016 to December 2019, the incidence of credit cards in the population has slightly increased from 58.4% to 59.3%. The incidence of debit cards has also increased, from 34.9% to 37.1%.

Credit card debt has remained relatively stable. The RBNZ Payment Statistics data shows that per capita credit card balance outstanding increased only slightly from \$1,351 in December 2016 to \$1,379 in November 2019.⁸

FIGURE 6 - OWNERSHIP OF DEBIT VS CREDIT CARDS

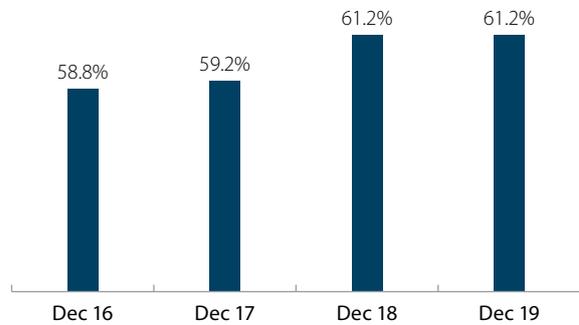


Source: Roy Morgan
 Base: New Zealanders 14+; 12 month rolling averages, n=6,383, (Jan 2016 – Dec 2016), n=6,547 (Jan 2019 – Dec 2019)

Keeping track of money and making informed product choices

Other important behaviours involved in good financial wellbeing include people keeping better track of their money. Figure 7 highlights the trend of people checking their bank accounts or bank statements online, which has slightly increased over the last 4 years from 58.8 per cent in December 2016 to 61.2 per cent in December 2019.

FIGURE 7 - PERCENTAGE OF PEOPLE CHECKING THEIR BANK ACCOUNTS OR VIEWING THEIR BANK STATEMENTS ONLINE OVER THE LAST 4 WEEKS



Source: Roy Morgan
 Base: New Zealanders 14+; 12 month rolling averages, n=6,383 (Jan2016-Dec2016), n= 6547, (Jan2019-Dec2019)

⁸ RBNZ Payment Statistics

PSYCHOLOGICAL FACTORS

Psychological factors are an important determinant of financial wellbeing. These factors have a tendency to impact our relationship with, and the way we use, our money. We have noted that the use of personal finance is increasing (figure 9). Changes such as this could be driven by supply-side factors such as the availability of credit to consumers. However, in the ANZ FWI dataset, consumer attitudes to debt remain reasonably consistent over the last few years. Since 2016, the percentage of consumers who believe that credit is a way to buy the things they want has decreased from 47.4 per cent to 46.5 per cent (figure 8).

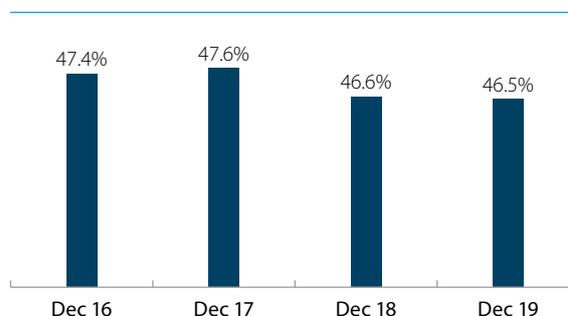
Another important psychological factor is the extent to which people believe they are in control of their life (also known as "locus of control").

The importance of locus of control is that people with a higher locus of control believe that they can make changes to improve their financial circumstances, whereas people who believe they do not have control over their life are more likely to believe that financial outcomes are out of their control.

There is an attitude measured in the ANZ FWI dataset that is a good proxy for the degree of locus of control. It is disagreement with the statement: "I get a raw deal out of life".

Figure 10 shows that this dimension has seen fluctuations over the last four years, ranging between 74.7 per cent and 76.2 per cent. We do not necessarily expect this to change over a short period of time, however, understanding that this is shifting positively from December 2018 helps us to better to understand the origins of the improvement in financial wellbeing.

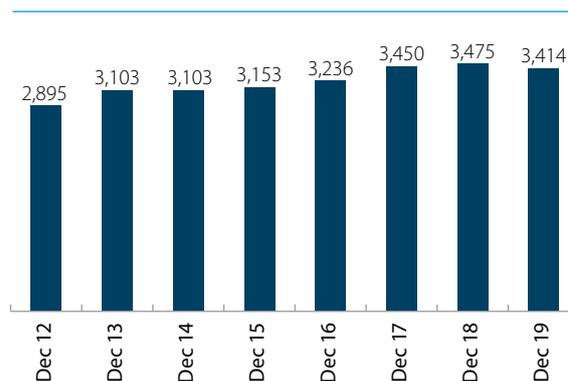
FIGURE 8 - "CREDIT ENABLES ME TO BUY THE THINGS THAT I WANT"



Source: Roy Morgan

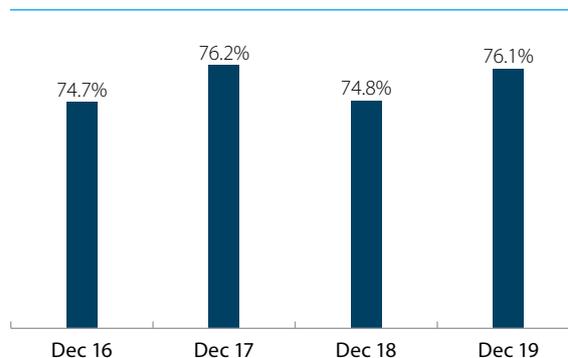
Base: New Zealanders 14+; 12 month rolling averages, n=6,383 (Jan2016-Dec2016), n= 6547, (Jan2019-Dec2019)

FIGURE 9 - PERSONAL CONSUMER LENDING PER CAPITA (\$)



Source: www.rbnz.govt.nz/statistics/c5

FIGURE 10 - LOCUS OF CONTROL DISAGREEMENT WITH "I GET A RAW DEAL OUT OF LIFE"



Source: Roy Morgan

Base: New Zealanders 14+; 12 month rolling averages, n=6,383 (Jan2016-Dec2016), n= 6547, (Jan2019-Dec2019)



THE ANZ ROY MORGAN DATASET SHOWS
AN INTERESTING RELATIONSHIP BETWEEN
ECONOMIC AND SOCIAL FACTORS

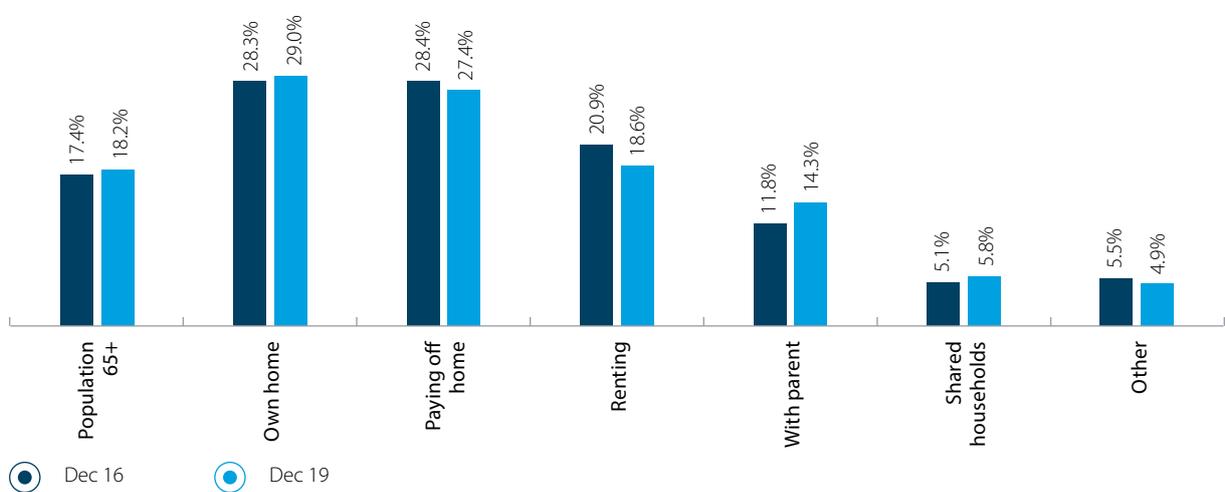
ECONOMIC AND SOCIAL FACTORS

Economic and social factors accounted for 14% and 16% of financial wellbeing, respectively, in the ANZ 2017 study. The ANZ Roy Morgan dataset shows an interesting relationship between economic and social factors, which goes some way to explaining how New Zealanders are adopting to the current economic situation.

Figure 11 shows a summary of changes in living situations, termed 'social environment'. New Zealand's population is growing older and this is reflected by a higher percentage of people who are aged 65+. Financial wellbeing tends to improve with age and we would expect an aging population to have a positive impact on the overall score.

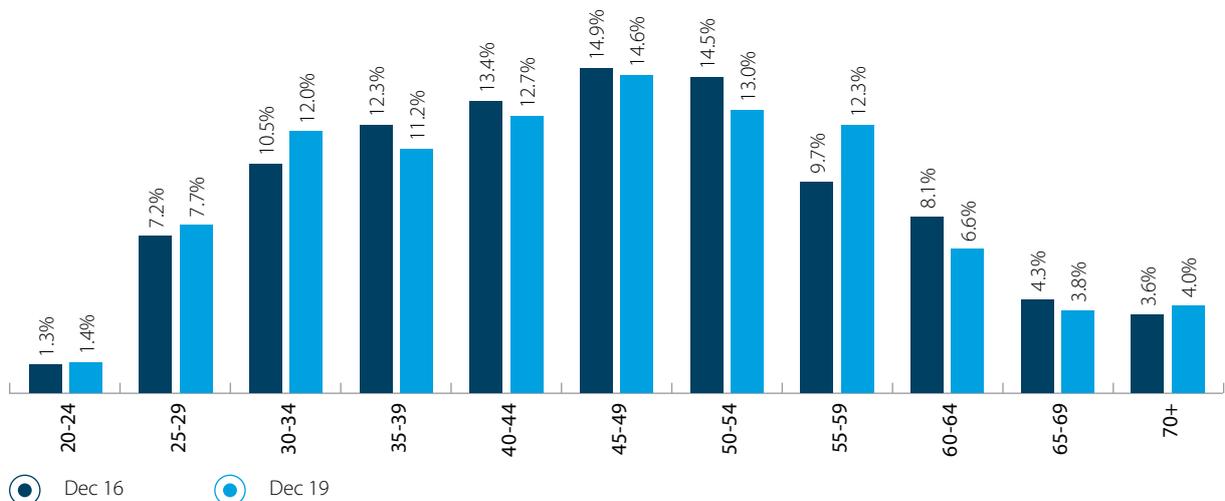
Figure 12 shows that the proportion of people aged 65+ who are still paying off an owner-occupied home loan has remained relatively steady since 2016, from 7.9 per cent in 2016 to 7.8 per cent in 2019.

FIGURE 11 - SOCIAL ENVIRONMENT CHANGES SINCE 2016



Source: Roy Morgan
 Base: New Zealanders 14+; 12 month rolling averages, n=6,383 (Jan2016-Dec2016), n= 6547, (Jan2019-Dec2019)

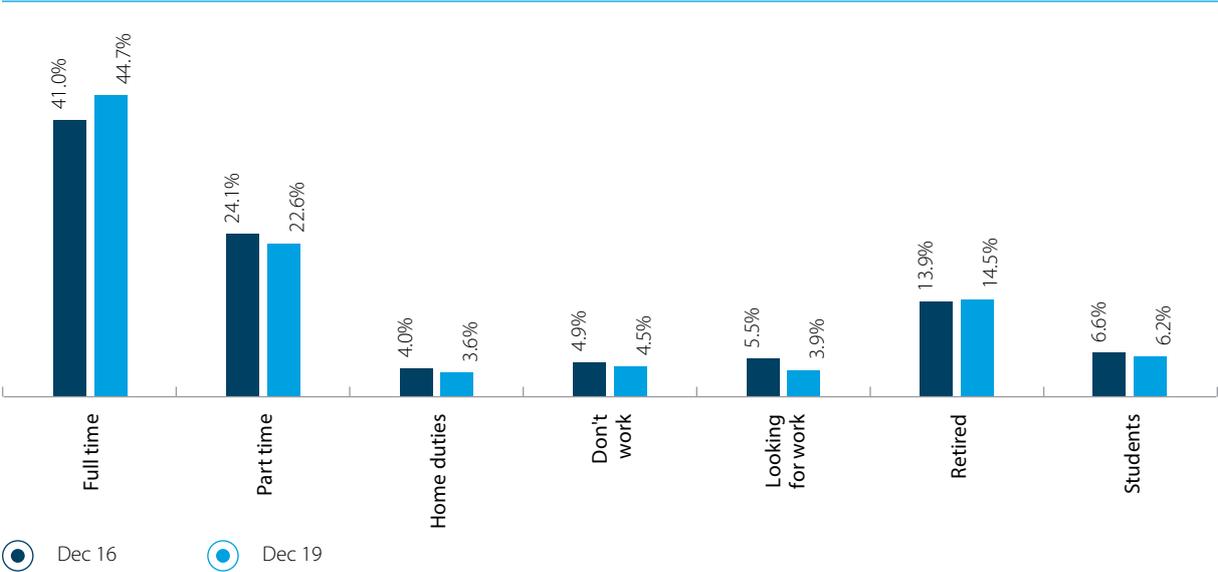
FIGURE 12 - CHANGES IN THE AGE PROFILE OF PEOPLE WITH HOME LOANS



Source: Roy Morgan
 Base: New Zealanders 14+ with an owner occupied home loan; 12 month rolling averages, n=1,753 (Jan2016-Dec2016), n= 1,88, (Jan2019-Dec2019)

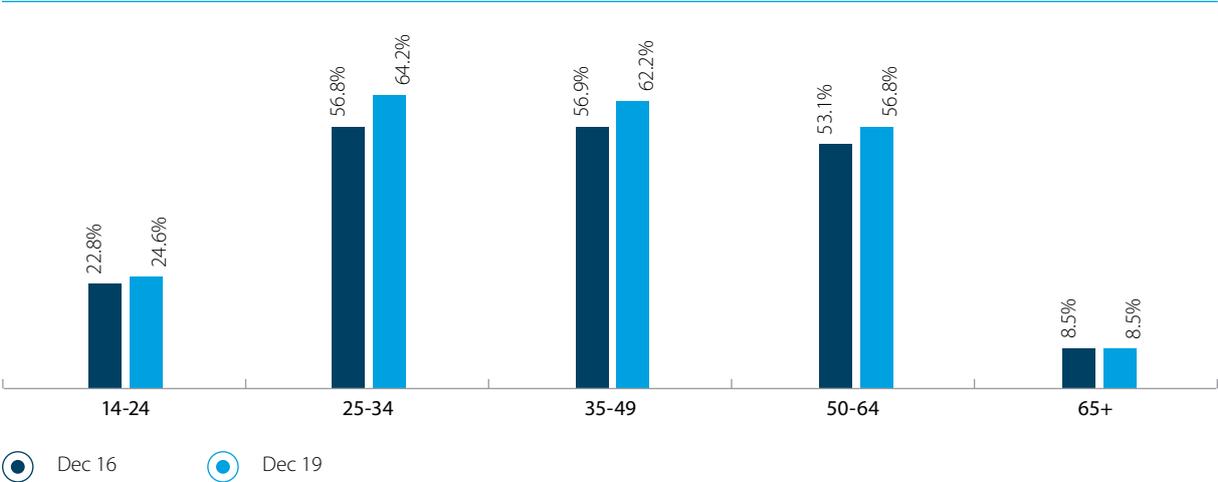
The employment pattern is another dimension that needs to be considered alongside household living arrangements. Figure 13 shows that since 2016, there has been an increase in the percentage of people working full-time and a decline in the percentage of people employed part-time and those who are looking for work. There has been an increase of full-time workers amongst most age groups, particularly among 25-34 year olds, who saw a 7.4 per cent increase between December 2016 and December 2019 (figure 14).

FIGURE 13 - EMPLOYMENT ENVIRONMENT



Source: Roy Morgan
 Base: New Zealanders 14+; 12 month rolling averages, n=6,383 (Jan2016-Dec2016), n= 6547, (Jan2019-Dec2019)

FIGURE 14 - FULL-TIME WORKERS BY AGE GROUP



Source: Roy Morgan
 Base: New Zealanders 14+; 12 month rolling averages, n=6,383 (Jan2016-Dec2016), n= 6547, (Jan2019-Dec2019)

APPENDIX 1: KEY SOCIAL AND MACROECONOMIC TRENDS

NZ Inland Revenue	Income growth has increased from 2.5% in the 12 months to March 2014 to 4.4% in the 12 months to June 2019. (Source: NZ Inland Revenue).
NZ Statistics Household Expenditure Survey	Average Weekly Household Expenditure has increased by 13.58% from 2013 to 2016 from \$1,110.10 to \$1,260.90. (Source: NZ Stats: Household Expenditure Statistics: Year ended June 2016)
NZ Statistics Consumption Data	NZ Statistics Consumption data highlights that annual growth in consumption has increased from approximately 3.8% in 12 months to March 2014 to 5.1% in the 12 months to March 2019 (Source: NZ Stats: National accounts (income and expenditure): year ended March 2019)
RBNZ Household Savings Per Capita	RBNZ Household Savings Per Capita statistics supports the increase in 14+ New Zealanders' household savings per capita from \$36,242.06 in December 2014 to \$46,004 in September 2019. (Source: RBNZ)
The RBNZ Payment Statistics	The RBNZ Payment Statistics shows per capita credit card balance outstanding increasing from \$1,351.03 in December 2016 to \$1,378.86 in November 2019. (Source: RBNZ)
RBNZ Interest Rates	There has been a downward move from 3.5% to 1% in the RBNZ interest rate between December 2014 and February 2020. (Source: RBNZ)
NZ Stats Consumer Price Inflation (Annual)	The Consumer Price Inflation Index has increased from 0.8% in December-2014 to 1.9% in December 2019. (Source: NZ Stats)
Unemployment (NZ Stats)	NZ Stats estimated that the unemployment rate has improved by 1.5% between December 2014, where it stood at 5.5%, to a level of 4% in December 2019. (Source: NZ Stats)
ANZ-Roy Morgan Consumer Confidence	The ANZ-Roy Morgan Consumer Confidence shows a 3.2 point decline over the period of December 2014 (C.C 126.5) and September 2019 (C.C. 123.3) (Source: Roy Morgan)
ANZ-Roy Morgan Inflation Expectations	New Zealanders expected inflation to be 3.09% over the next two years when interviewed in the Roy Morgan in December 2014. This expectation increased to 3.49% in September 2019. (Source: Roy Morgan)
S&P NZ50	The S&P/NZ50 Price Index grew from 2901.49 in Dec-14 to 4924.95 in December 2019. (Source: https://us.spindices.com/indices/equity/sp-nzx-50-index)
New Zealand Dollar	The New Zealand dollar decreased by 15.38% in value over the reporting period, down from 0.78 US cents in Dec-14 to 0.66 US cents in December 19. (Source: RBNZ)
New Zealand GDP Growth (Annual)	The annual GDP growth rate of the New Zealand economy has stayed relatively steady from an annual rate of 2.6% in the Mar14 quarter to 2.7% in the Mar19 quarter. (Source: NZ Stats)

APPENDIX 2: REFERENCES

1. Allin, P., & Hand, D. J. (2017). New statistics for old? – Measuring the wellbeing of the UK. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 180(1), 3-43. doi:10.1111/rssa.12188
2. AMP Life. (2016). Financial wellness in the Australian workplace. Retrieved from Parramatta, Australia: https://www.ampcapital.com.au/goals/MyLifeGoals/media/contents/Articles/2016/December/October-2016_Financial-wellness-in-the-Australian-workplace_FINAL.pdf
3. ASIC. (2017). Independent evaluation of ASIC's MoneySmart Teaching Program. Report 554. Retrieved from Canberra, Australia: <http://download.asic.gov.au/media/4563536/rep554-published-4-december-2017.pdf>
4. Atkinson, A., McKay, S., Kempson, E., & Collard, S. (2006). Levels of financial capability in the UK: Results of a baseline survey. *Consumer Research 47*. Retrieved from Personal Finance Research Centre, University of Bristol, United Kingdom: http://www.pfrc.bris.ac.uk/publications/Reports/Fincap_baseline_results_06.pdf
5. Australian Unity. (2017). What makes us happy? Retrieved from South Melbourne, Australia: <http://www.australianunity.com.au/health-insurance/sitecore/content/about-us/home/wellbeing/what-makes-us-happy>
6. Bowman, D., Banks, M., Fela, G., Russell, R., & de Silva, A. (2016). Understanding financial wellbeing in times of insecurity. Working paper. Retrieved from Brotherhood of St Laurence, Fitzroy, Australia: http://library.bsl.org.au/jspui/bitstream/1/9423/1/Bowman_etal_Understanding_financial_wellbeing_2017.pdf
7. Canadian Index of Wellbeing. (2016). How are Canadians Really Doing? The 2016 CIW National Report. Retrieved from Canadian Index of Wellbeing and University of Waterloo, Ontario, Canada: https://uwaterloo.ca/canadian-index-wellbeing/sites/ca.canadian-index-wellbeing/files/uploads/files/c011676-nationalreport-ciw_final-s_0.pdf
8. Capic, T., Li, N., & Cummins, R. A. (2017). Confirmation of subjective wellbeing set-points: Foundational for subjective social indicators. *Social Indicators Research*. doi:10.1007/s11205-017-1585-5
9. CFFC. (2015). National strategy for financial capability. June 2015. Retrieved from Auckland, New Zealand: <https://www.cffc.org.nz/assets/Uploads/National-Strategy-for-Financial-Capability-June-2015.pdf>
10. CFFC. (2017a). Briefing to the incoming Minister of Commerce and Consumer Affairs. Prepared by the Commission for Financial Capability. Retrieved from Auckland, New Zealand: <https://www.cffc.org.nz/assets/CFFC-BIM-NOV.pdf>
11. CFFC. (2017b). Recipes for retirement. Annual report 2016/2017. Commission for Financial Capability. Retrieved from Auckland, New Zealand: <https://www.cffc.org.nz/assets/Uploads/CFFC-Annual-Report-2016-2017-Web.pdf>
12. CFFC. (2017). Statement of intent. 2017-2020. Retrieved from Auckland, New Zealand: <https://www.cffc.org.nz/assets/Uploads/CFFC-Statement-ofIntent-010817.pdf>
13. CFLRI. (2012). National strategy for financial literacy. Annual report 2012. Commission for Financial Literacy and Retirement Income. Retrieved from Auckland, New Zealand: <https://www.cffc.org.nz/assets/Documents/National-Strategy-for-Financial-Literacy-Annual-Report-2012.pdf>
14. Cigna International. (2017). Live well. 2017 Cigna 360 wellbeing survey. Retrieved from Wellington, New Zealand: https://www.cigna.com.hk/iwov-resources/docs/en/about-cigna/news/Cigna360Wellbeing_Survey2017.pdf
15. Colmar Brunton. (2014). New Zealand Financial Behaviour Index. Wave Seven – November 2014. Retrieved from Auckland, New Zealand: <https://www.cffc.org.nz/assets/Documents/FBI-Financial-Behaviour-Index-November-2014.pdf>
16. Consumer Financial Protection Bureau. (2015). Measuring financial wellbeing: A guide to using the CFPB Financial Wellbeing Scale. Retrieved from http://files.consumerfinance.gov/f/201512_cfpb_financial-wellbeing-user-guide-scale.pdf
17. Cummins, R. A., Hughes, J., Tomy, A., Gibson, A., Woerner, J., & Lai, L. (2007). The wellbeing of Australians: Carer health and wellbeing. Report 17.1. Retrieved from Australian Centre on Quality of Life and School of Psychology, Deakin University and Australian Unity,
18. Geelong, Australia: <http://www.carersaustralia.com.au/storage/Wellbeing-Index-Special-Report-October-2007.pdf>
19. EY Sweeney. (2017). Independent evaluation of ASIC's MoneySmart Teaching Program. Volume 2: Case studies. EY Sweeney Ref No. 24488. Retrieved from Sydney, Australia: <http://download.asic.gov.au/media/4563530/ey-sweeney-case-studies.pdf>
20. Financial Literacy & Savings Partner Working Group. (2015). Whanau and low-income household savings report. Retrieved from Auckland, New Zealand: <http://www.mbie.govt.nz/info-services/infrastructure-growth/maori-economic-development/documents-image-library/hkar-whanau-and-lowincome-household-savings-report.pdf>
21. Gerrans, P., Speelman, C., & Campitelli, G. (2014). The relationship between personal financial wellness and financial wellbeing: A structural equation modelling approach. *Journal of Family Economic Issues*, 35, 145-160. doi:10.1007/s10834-013-9358-z
22. 37
23. Hayes, D., Evans, J., & Finney, A. (2016a). Momentum Household Financial Wellness Index: Wave one. Retrieved from Personal Finance Research Centre, University of Bristol, United Kingdom: https://www.researchgate.net/publication/318672509_Momentum_UK_Household_Financial_Wellness_Index_2016/overview

24. Hayes, D., Evans, J., & Finney, A. (2016b). Momentum UK Household Financial Wellness Index. Quantitative methodology. Retrieved from Personal Finance Research Centre, University of Bristol, United Kingdom: http://www.bristol.ac.uk/media-library/sites/geography/pfrc/pfrc1610_momentummethodology-report.pdf
25. Hayes, D., Evans, J., & Finney, A. (2017). Momentum UK Household Financial Wellness Index 2017. Summary report. Retrieved from Personal Finance Research Centre, University of Bristol, United Kingdom: <https://www.momentumgim.co.uk/wps/wcm/connect/mgim2/3a6e04d0-4d20-47f9-b1e226ed81db67bb/Final+summary+report++Financial+Wellness+2017.pdf?MOD=AJPERES>
26. Johnson, E., & Sherraden, M. S. (2007). From financial literacy to financial capability among youth. *Journal of Sociology and Social Welfare*, 34(3), 119-145. Kempson, E., Finney, A., & Poppe, C. (2017). Financial wellbeing: A conceptual model and preliminary analysis. Final edition. Consumption Research Norway SIFO. SIFO Project Note no. 3. Consumption Research Norway SIFO. Oslo, Norway. Retrieved from <http://www.bristol.ac.uk/geography/research/pfrc/themes/fincap/financial-wellbeing-conceptual-model/>
27. Klapper, L., Lusardi, A., & van Oudheusden, P. (2015). Financial literacy around the world: Insights from the Standard & Poor's ratings services global financial literacy survey. Retrieved from Washington, D.C.: http://gflec.org/wp-content/uploads/2015/11/3313-Finlit_Report_FINAL-5.11.16.pdf?x87657
28. Mackay, L., Schofield, G., Jarden, A., & Prendergast, K. (2015). Sovereign Wellbeing Index. Retrieved from Auckland, New Zealand: http://ebooks.sovereign.co.nz/sov_executive_report_2015_ebook/
29. Mackay, L. M., Jarden, A., Prendergast, K., & Schofield, G. M. (2015). 2014 Sovereign Wellbeing Index. Mini report series. Retrieved from Human Potential Centre, AUT University, Auckland, New Zealand: <http://www.mywellbeing.co.nz/mw/report/wealth-and-wellbeing-in-new-zealand.pdf>
30. Malatest International. (2015). Evaluation of the Wainuiomata Sorted workplace programme. Retrieved from Wellington, New Zealand: <http://www.financialliteracy.gov.au/media/559985/evaluationofthewainuiomatasortedworkplaceprogramme-nz-2015.pdf>
31. Map My Plan Ltd. (2015). The financial fitness of working Australians. Retrieved from Sydney, Australia: <https://s3.mapmyplan.com.au/pdf/MMP-FinancialIndex-Report.pdf>
32. Muir, K., Hamilton, M., Noone, J., Marjolin, A., Salignac, F., & Saunders, P. (2017). Exploring financial wellbeing in the Australian context. Retrieved from Sydney, Australia: <http://www.financialliteracy.gov.au/media/560752/research-unsw-fla-exploringfinancialwellbeingintheaustraliancontextreport-201709.pdf>
33. New Zealand Government. (2015). Building financial capability in New Zealand. Retrieved from Auckland, New Zealand: <https://www.cffc.org.nz/assets/Uploads/Financial-Capability-Government-Statement.pdf>
34. OECD. (2017). How's life? 2017: Measuring wellbeing. Retrieved from OECD Publishing, Paris, France: http://www.oecd-ilibrary.org/economics/how-s-life_23089679
35. Perry, B. (2017). The material wellbeing of NZ households: Overview and key findings from the 2017 household incomes report and the companion report using non-income measures. Retrieved from Ministry of Social Development, Wellington, New Zealand: <https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/monitoring/household-income-report/2017/incomes-report-overview.pdf>
36. Russell, R., Kutin, J., Green, R., Banks, M., & Di Iorio, A. (2016). Women and money in Australia: Across the generations. Retrieved from RMIT University, Melbourne, Australia: https://www.academia.edu/31292558/WOMEN_AND_MONEY_IN_AUSTRALIA_ACROSS_THE_GENERATIONS?auto=download
37. Russell, R., Kutin, J., Stewart, M., & Rankin, G. (2017). MoneyMinded Impact Report 2017. <http://www.financialliteracy.gov.au/media/560892/mmimpact-2017.pdf>
38. Vlaev, I., & Elliot, A. (2014). Financial wellbeing components. *Social Indicators Research*, 118(3), 1103-1123. doi:10.1007/s11205-013-0462-0

APPENDIX 3: METHODOLOGY

ABOUT ROY MORGAN IN NEW ZEALAND

Roy Morgan is the largest and longest-established Australian market research company, with over 75 years' experience in market research.

We are an independent, wholly Australian-owned company. Established by Roy Morgan in 1941, the organisation is a household name linked to professional, high quality, consultancy orientated market research in media, finance and other industries. Roy Morgan has conducted the National Readership Survey in Australia since 1974.

In 1988 Roy Morgan embarked on a program of international expansion with a view to making Single Source a leading global source of relevant quality information. Roy Morgan's reputation has been founded on our ability to provide consistency, quality and continuity of service to all clients.

Fundamental to the way we do Research, as well as our commitment to Data Security, we are certified to the AS/NZS ISO9001 Quality Management Systems standard, the ISO20252 Market, Opinion and Social Research standard and the *ISO27001 Information Security standard. Our commitment to quality standards, continuous improvement and data security is evident at every stage of the research process.

Roy Morgan adheres to the Code of professional behaviour of ESOMAR and the Australian Market and Social Research Society, the Federal Privacy Act and all other relevant legislation.

SINGLE SOURCE FLOW CHART

How we obtain and interpret our information for New Zealand.

Questionnaire Design:	This phase involves the design and production of what we call weekly Establishment Surveys (ES) which are interviewer administered by telephone. Also, at this stage we produce monthly self-completion online surveys.
Responses:	Telephone interviewing is conducted on weeknights and weekends. Respondents are then invited to participate in the self-completion online survey.
Data capture:	At this point, self-completion online survey data is retrieved and stored via the Confirmit Horizons platform.
Data Analysis:	Data cleaning, processing and weighting takes place at this stage. Here we build Single Source databases for ASTEROID and create hardcopy reports. We then distribute reports and ASTEROID databases to local and international clients.

SURVEY CONTENT

Self-Completion Material		
Accounts (Banking)	Household items/appliances	Personal products
Activities and interests	Household products bought	Personal services
Air travel	Insurance	Radio listening
Alcoholic beverages	Internet activities	Retail – non-food purchasing
Apps downloaded	Internet behaviour and preferences	Roy Morgan values segments*
Attitudes and lifestyles	Loans	Sectional reading of newspapers
Business decisions	Magazine readership	Sporting participation
Catalogues	Media most useful	Superannuation
Cinema attendance	Media preference by daypart	Supermarkets
Credit cards	Media usage	Take-away food
Demographics	Motor vehicles	Telecommunications
Financial institutions	Newspaper readership	TV program involvement
Food purchases	Non-alcoholic beverages	TV viewing
Health issues	Outdoor advertising	Utilities
Holidays and travel	Pay TV, Subscription TV, Video on demand	Website visitation

* Devised by Michelle Levine of Roy Morgan and Colin Benjamin of the Horizons Network.

SAMPLING PLAN

Sample size	n = 7,000 per year (approx)
Coverage	North Island and South Island 16 Regional Council areas
Schedule/Timing	Conducted weekly 48 weeks per year (12 months x 4 weeks) Calls made Monday to Sunday, 5-9 pm weekdays and 12.30-4.30pm weekends
Household	People 14+ Private households With telephone or mobile phone Individual selection – youngest person in household
Sampling	Random digit dialling Minimum of 3 calls to establish contact Automated sample controlled via CATI system Automated dialling Automated programming via CATI to ensure sample returned different times and days
Weighting	Quarterly by: area, age, sex, household size Source: Statistics New Zealand
Incentives	Monthly prize draw \$500

PROCESSING

Recruitment/ Establishment survey	Melbourne, Australia Computer Assisted Telephone Interviewing (CATI) Survey content – Survey and incentive explanation – Demographics
Interviewers	Experienced CATI interviewers Fully briefed Supervisors manage an average of 10-15 interviewers per shift Payment based on a combination of minimum hourly award and incentive system Confidentiality agreements Approximately 10% of interviews audited (on screen and listen in)
Self-completion online survey	Designed Melbourne, Australia Dispatched electronically throughout New Zealand Self-completion online survey (CAWI – Computer Assisted Web Interviewing) Up to 3 e-mail reminders to improve response rate Confirmit Horizons software used for Web-based information retrieval and storage
Data processing	Logical edit checks on the data Data cleaning according to documented procedures Provision for imputation of missing data Data projected according to latest Statistics New Zealand population estimates Results validated against known industry estimates ASTEROID database delivery provides easy data retrieval

RESULTS AND COMPARISONS

Comparative Statistics		External Data Source (all people unless stated otherwise)	Roy Morgan Single Source (people aged 14+ unless otherwise stated)
	Labour force (number of employed persons)	2.6 million Household Labour Force Survey Statistics New Zealand Quarter to June 2018 (aged 15+)	2.5 million Quarter to June 2018 (aged 15+)
	Average weekly income (all sources) – Annualised	\$44,668 Labour Market Statistics (Income) Statistics New Zealand Quarter to June 2018 (aged 15+)	\$43,741 Quarter to September 2018 (aged 15+)
	Average household income (all sources) Annualised (Note: Households with at least one person aged 18-64)	\$104,104 Labour Market Statistics (Income) Statistics New Zealand Quarter to June 2018	\$105,127 12 months to June 2018 (aged 15+)
	Alcohol consumption by gender (drunk alcohol in the last 12 months)	Male – 84% Female – 75% New Zealand Health Survey (2016/2017) Ministry of Health (aged 15+)	Male – 82% Female – 76% Quarter to June 2018 (aged 18+)
	Number of registered vehicles	3.6 million New Zealand Transport Agency June 2018 (Note: excludes rental cars, trailers, caravans)	3.6 million 12 months to June 2018
	Tablet computer penetration (% of population)	51% Research New Zealand Survey of New Zealanders' use of smart phones and other mobile communication devices 2018	52% 12 months to June 2018
	Households with internet connection	1.524 million Statistics New Zealand Internet Service Provider survey June 2018	1.572 million Quarter to June 2018
	Total have a smart phone as a main mobile phone	70% Research New Zealand Survey of New Zealanders' use of smart phones and other mobile communication devices 2018	79% Quarter to June 2018
	Pet ownership (% of households)	Cat – 44% Dog – 28% Companion animals in New Zealand 2016 New Zealand Companion Animal Council	Cat – 43% Dog – 26% Quarter to June 2018
	Total listened to radio in last 7 days	81% (aged 10+) Total New Zealand commercial radio – survey 1 2018 GFK New Zealand	78% 12 months to June 2018
	Average amount in savings and investments	\$226,230 per person Reserve Bank of New Zealand June 2018	\$223,506 per person 6 months to June 2018
	Percentage of population with an overweight Body Mass Index	Men – 39.1% Women – 29.9% New Zealand health survey (2016/2017) Ministry of Health (aged 15+)	Men – 36.5% Women – 29.1% 12 months to June 2018 (aged 18+)

