Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author. How prepared are New Zealanders to achieve adequate consumption in retirement?

A thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Banking

at Massey University, Manawatu, New Zealand.

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#### Abstract

The majority of New Zealand retirees are happy with their current level of retirement income; however, the critical issue is "Will their financial resources last?" This question provides the catalyst for this thesis, requiring a definition for, and a way of measuring retirement adequacy that is appropriate for New Zealanders.

Government-funded NZ Superannuation forms the foundation of New Zealanders' retirement income, sufficient to cover basic needs and prevent retirees falling below the poverty line. Some (passive) retirees find that NZ Superannuation is sufficient to meet their needs, achieving retirement adequacy regardless of their financial behaviour and actions. However, others (active) retirees, desiring a higher retirement income, are required to make financial decisions and take action to augment their NZ Superannuation in order to achieve the lifestyle and level of consumption desired in retirement. While retiree retirement adequacy can be calculated with a degree of certainty, that is not the case for pre-retirees as future employment, income, and health are susceptible to change.

This study found the Consumption Replacement approach was to be a more appropriate methodology than Income Replacement for measuring retirement adequacy. Financial calculations using data collected from an on-line survey of 1,044 respondents found that 60.4% of all 'current' retirees and 48.6% of 'active' retirees were likely to be adequately prepared for retirement, by being able to maintain pre-retirement lifestyle and consumption in retirement.

Significant retirement adequacy factors drawn from the data were used to develop the Financial Preparedness for Retirement (FP<sub>f</sub>R) Index to compare the preparedness of retirees to pre-retirees. This study found that fewer pre-retirees (32.1%) were likely to achieve retirement adequacy than retirees. Significantly, nine out of ten inadequately prepared pre-retirees would need to save more than 25% of their current household income pre-retirement in order to achieve their required retirement saving accumulation targets. The conclusion reached is that New Zealand pre-retirees are less prepared financially for retirement than current retirees. Findings from this thesis will help provide a greater understanding of retirement preparedness amongst policymakers, government agencies, educationalists, financial institutions, professional financial advisers, and others, both internationally and in New Zealand.

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## Table of Contents

Abstract i
Acknowledgements ii
List of Figures iv
List of Tablesv
Table of Equations vii
Table of Abbreviations
1.0 Introduction
1.1 Background to the thesis
1.2 Objectives of the thesis
1.3 Thesis Outline
2.0 Prior Research
2.1 Introduction
2.2 Consumption Smoothing
2.3 Retirement Adequacy
2.4 Financial Preparedness for Retirement11
2.5 Financial Preparedness Measures and Indices
2.6 Conclusion
3.0 Data and Methods
3.1 Introduction
3.2 Data Collection
3.3 Objective 1: Methodology
3.4 Objective 2: Methodology
3.5 Objective 3: Characteristics of Adequately Prepared Retirees
3.6 Objective 4: Methodology
3.7 Objective 5: Determining Pre-retiree Preparedness for Retirement
3.8 Ethics
4.0 Research Results and Discussion
4.1 Objective 1 Results and Discussion
4.2 Objective 2 Results and Discussion
4.3 Objective 3 Results and Discussion
4.4 Objective 4 Results and Discussion

4.5 Objective 5 Results and Discussion
5.0 Conclusion
5.1 Introduction
5.2 Methodology 161
5.3 Conclusions and Implications
5.4 Research Limitations
5.5 Further Research
5.6 Policy Recommendations
5.7 Academic Contribution
5.8 Conclusion
REFERENCES180
APPENDICES195
Appendix 1: Table of Selected Retirement Adequacy Studies 195
Appendix 2: List of Retirement Preparedness Indices
Appendix 3: Adequacy Preparedness Survey 200
Appendix 4: Characteristics of Sample Population
Appendix 5: List of Variables Used in Statistical Analysis 243
Appendix 6: Distribution by Characteristics CURRENT Retiree adequacy 249
Appendix 7: Distribution by Characteristics of ACTIVE retiree adequacy 256
Appendix 8: Distribution by Characteristics of PRE-retiree adequacy
Appendix 9: Related Publications and Awards

# List of Figures

Figure 1: Modigliani's life cycle hypothesis	. 7
Figure 2: Friedman's Permanent Income Hypothesis	. 8
Figure 3: Amended life-cycle consumption model	. 9
Figure 4: Distribution of retiree financial literacy scores	65
Figure 5: Distribution of retiree financial capability scores	66
Figure 6: Active Retirees' Adequacy Differential	93
Figure 7: The Adequacy Continuum	94
Figure 8: Retiree adequacy by seven income cohorts	02
Figure 9: Sufficiency of retirees' resources10	05
Figure 10: FP <sub>f</sub> R Index score distribution for active retirees	37

Figure 11: FP <sub>f</sub> R Index score distribution for active retirees by age	. 138
Figure 12: Distribution of pre-retiree & active retiree adequacy by age	. 143
Figure 13: FP <sub>f</sub> R Index Score Distribution for Pre-retirees & Retirees	. 146
Figure 14: FP <sub>f</sub> R Index score distribution by age group for pre-retirees	. 147
Figure 15: FP <sub>f</sub> R <sup>P</sup> Indexation Score Distribution for Pre-retirees	. 150

### **List of Tables**

Table 1: Call data summary 43
Table 2: Income Replacement approaches
Table 3: Consumption Replacement approaches  49
Table 4: Real rates of returns  51
Table 5: Income - wealth cohort composition
Table 6: Distribution of retiree income by cohorts  71
Table 7: Cohort correlations
Table 8: Cohort construction
Table 9: High-Low Cohort Correlations 74
Table 10 Retiree's mean replacement rate by income groups
Table 11: Variance in retirement income expectations
Table 12: Retiree adequacy using income replacement approaches  88
Table 13: Retiree adequacy using consumption replacement approaches       89
Table 14: Logistic regression results – All Retirees
Table 15: Backward stepwise logit regression results - Current retirees
Table 16: Backward stepwise ologit regression results - Current retirees
Table 17: Backward stepwise OLS regression results - Current retirees
Table 18: Current retirees' cohort adequacy
Table 19: Current retiree savings/investments by income group 104
Table 20: Adequacy robustness analysis
Table 21: Passive and active cohort proportions
Table 22: Active retiree cohort adequacy  109
Table 23: Adequacy comparison – Educational qualification  110
Table 24: Cohort adequacy for active retirees  112
Table 25: Distribution & adequacy of active retirees - Income 113
Table 26: Distribution & adequacy of active retirees - Savings 115

Table 27: Annual return on savings/investments  116
Table 28: Distribution & adequacy of active retirees – Net worth 117
Table 29: Distribution & adequacy of active retirees – Financial capability 118
Table 30: Distribution & adequacy of active retirees – Education 120
Table 31: Capital Consumption Ratios  121
Table 32: Cohort distribution by Capital Consumption Ratios
Table 33: Significant variables from logistic regression - adequacy 124
Table 34: Correlation of significant factors  125
Table 35: Active retiree pre- and post-survey self-assessed preparedness 127
Table 36: Active retiree distribution & adequacy - NZ Super is enough 128
Table 37: Active retiree distribution & adequacy – Planning 130
Table 38: Active retiree distribution & adequacy – KiwiSaver is enough 132
Table 39: Model evaluation 135
Table 40: Pre-retiree cohort membership
Table 40: Pre-retiree cohort membership
-
Table 41: Pre-retiree adequacy by age group
Table 41: Pre-retiree adequacy by age group
Table 41: Pre-retiree adequacy by age group
Table 41: Pre-retiree adequacy by age group
Table 41: Pre-retiree adequacy by age group

# Table of Equations

[1] Retiree Financial Resources
[2] Pre-retiree Financial Resources (home loan repaid before retirement) 54
[3] Pre-retiree Financial Resources (home loan repaid after retirement) 54
[4] Capital Consumption Ratio
[5] NPV of Total Retirement Consumption
[6] Pre-retiree Retirement Consumption (home loan repaid before retirement) 58
[7] Pre-retiree Retirement Consumption (home loan repaid after retirement) 58
[8] Retirement Income Replacement Rate 58
[9] Retirees' Last Year's Earnings (LYE) 58
[10] Pre-retirees' Last Year's Earnings (LYE) 58
[11] Income Replacement Adequacy 59
[12] Income Replacement Adequacy – Capital Preservation
[13] Income Replacement Adequacy – Capital Consumption 59
[14] Retiree NPV of Total Household Financial Resources 50
[15] Pre-retiree NPV of Total Household Financial Resources
[16] Consumption Replacement Adequacy
[17] NPV Total Retirement Consumption 61
[18] Annual Household retirement consumption
[19] Consumption Replacement Point-of-Adequacy
[20] Retiree Logistic Prediction Model
[21] Retiree Logistic Prediction Equation
[22] Pre-retiree Logistic Prediction Equation

### **Table of Abbreviations**

CCR	Capital Consumption Ratio
CPreRInc	Current annual household Pre-retiree Income
CRetInc	Current annual household Retirement Income
ERI	Expected Retirement Income
FS	Financial Support (received or given)
HhldInc	Current Household Retirement Income
HhldRetCons	Current Retiree Household Retirement Consumption
	Current Retiree Household Retirement Income
HhldRetInc	
IRR	Income Replacement Rate
LYE	Last Year's Earnings (before retirement)
LYE <sup>P</sup>	Last Year's Earnings – Projected
	(forward or backwards to 2015)
NPV	Net Present Value
ProjHhldInc <sub>C</sub>	Projected Household Income, capital Consumption approach excluding home equity.
ProjHhldInc <sub>P</sub>	Projected Household Income, capital Preservation approach
	excluding Home Equity
ProjHhldInc <sub>C</sub> <sup>HEq</sup>	Projected Household Income, capital Consumption approach
	including partial home equity.
PHRI	Projected Household Retirement Income (excludes Home
	equity)
PHRI <sup>HEq</sup>	Projected Household Retirement Income includes Home
	equity
PRRI	Prerequisite Replacement Retirement Income
PV	Present Value
RHS	Right Hand Side
RHY	Remaining Home Loan Years - The number of year
	remaining for a home loan
RR	Replacement Rate
RRI	Required Retirement Income
RRR	Required Replacement Rate
RRoR	Real Rate of Return
RRRI	Required Replacement Retirement Income
RetCons	Total household Retirement Consumption
RetCons <sub>C</sub>	Total household Retirement Consumption – capital
	Consumption
RetCons <sub>P</sub>	Total household Retirement Consumption – capital
	Preservation
<b>PVTotHhldFinRes</b>	NPV of Total Household Financial Resources, excluding
	partial home equity.
<i>PVTotHhldFinRes</i> <sup>HEq</sup>	NPV of Total Household Financial Resources, including partial Home Equity.
RYIR	Remaining Years In Retirement
Y	Annual Income
YIR	Years In Retirement
YSR	Years Spent in Retirement
YTR	Years To Retirement
7111	