

**AGEING IN AUSTRALIA:
FINANCIAL INDEPENDENCE AND WORK DISINCENTIVE ISSUES**

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This thesis is presented for the degree of Doctor of Philosophy of

Murdoch University, 2004

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

.....
R. Ong

ACKNOWLEDGEMENTS

As I have taken this three-year journey of writing up a thesis, I have been piloted and assisted by various people whom I am very grateful to:

To my supervisor, Professor Gavin Wood, I owe a special debt of gratitude for his invaluable advice and unwavering support for me.

I also wish to thank Mr. Richard Watson for guidance on setting up the microsimulation model upon which the empirical work is based, and Mr. Paul Flatau whose recommendations on various econometric issues have benefited me. Many thanks to Murdoch University for granting me a scholarship that has provided much financial relief during the course of this degree.

Special thanks to my wonderful parents, who brought me into this world, instilled in me the desire to succeed academically, and loved, supported and sacrificed for me throughout my academic years. Special thanks also to Joshua, Jubilee and Jedidiah ViforJ, whose love, friendship and commitment to me have sustained me through the ups and downs of the past three years.

Finally, with heartfelt gratitude to my Lord Jesus Christ, who has given me the love, hope and strength I need to complete this thesis.

ABSTRACT

This thesis investigates issues central to population ageing in Australia. A principal policy concern is financing the retirement incomes of an increasing number of aged retirees from a shrinking working age population. The investigation has two primary aims. The first is to measure the budgetary savings that alternative social security reforms may yield, and the implications of these reforms for the economic wellbeing of the elderly. The second is to examine how the aged can become more self sufficient through an exploration of the potential role of home equity conversion, an understanding of why the labour force participation of mature age Australians is low, and how labour force participation may be promoted as retirement approaches.

A microsimulation model is employed to conduct empirical analyses in the context of the new tax system introduced in July 2000. The main microsimulation exercises include measurement of the impacts of potential social security reforms and home equity conversion on the economic well-being of the elderly, and estimation of work disincentive measures, that is, effective marginal tax rates and replacement rates. The Replacement rate estimates are then used in econometric models of labour force participation. Innovative approaches are developed to overcome methodological problems that have prevented the inclusion of replacement rates in previous models.

The major findings are that reforms motivated by budgetary savings can have sizeable adverse impacts on the economic well-being of the elderly. Home equity conversion can promote financial independence, but significant risks are borne by elderly homeowners in those states and regions with less buoyant house prices. Blunt work incentives are

experienced by specific mature age socio-economic groups, in particular persons whose partners' incomes help to cushion their economic position on quitting employment. The replacement rate is found to have a significant impact on the participation decision of mature age persons.

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GLOSSARY AND ABBREVIATIONS

AARP	American Association of Retired Persons
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
Adjustable interest rate	An interest rate that is not fixed over time
AHC	After housing cost
AHRC	Australian Housing Research Council
AIHW	Australian Institute of Health and Welfare
ANTS	A New Tax System
ASCO	Australian Standard Classification of Occupation
ATI	Adjusted Taxable Income
ATO	Australian Taxation Office
ATR	After Threshold Rate
BHC	Before housing cost
BTR	Below Threshold Rate
CA	Carer Allowance
CDEP	Community Development Employment Project
Charge percentage	Percentage of employees' notional earnings base that is equivalent to the amount of superannuation contributions that employers are required to make on behalf of their employees.
Collateral risk	The risk that the house value is insufficient to pay off the home equity conversion loan because it is less than the total outstanding balance at the end of the tenure.
CPI	Consumer Price Index
DFACS	Department of Family and Community Services
Direct benefits	Regular cash government transfers.
Direct tax	Personal income tax, Medicare levy, tax offsets and superannuation surcharge.
DSP	Disability Support Pension
DSS	Department of Social Security
DVA	Department of Veterans' Affairs

Effective marginal tax rate	The proportion of each additional dollar of private income that a person does not receive due to increased tax liabilities or reduced government transfer entitlements.
Elderly income unit	Income unit headed by a reference person aged 65 or over
Elderly person	Person aged 65 or over.
EMTR	Effective Marginal Tax Rate
Entry replacement rate	The ratio of income while out of work to income while in work for employed persons.
Exit replacement rate	The ratio of income while out of work to income while in work for persons who are unemployed or not in the labour force.
Expected average mortgage interest rate	The long-term fixed interest proxy for adjustable interest rates.
FAS	Family Allowance Supplement
FHA	Federal Housing Administration
Final income	Income measure that takes into account all receipts and payments that affect income, including private income, direct and indirect benefits, and direct and indirect taxes.
FIS	Family Income Supplement
Foster measure	A poverty measure that satisfies both the monotonicity and transfer axioms.
FTB	Family Tax Benefit
FTB(A)	Family Tax Benefit Part A
FTB(B)	Family Tax Benefit Part B
GDP	Gross Domestic Product
GIC	General Interest Charge
HDI	Household Disposable Income
Headcount poverty rate	The proportion of income units below the poverty line.
HECM	Home Equity Conversion Mortgage
HES	Household Expenditure Survey
High EMTR	EMTR in excess of 60 per cent
Home equity conversion	A program in which an elderly homeowner takes out a loan advance from a lender using his/her house as collateral. At

	the end of the loan term, the house is sold and the lender repaid with interest from the proceeds of the sale.
HPI	House Price Index
HUD	Department of Housing and Urban Development
IAESR	Institute of Applied Economic and Social Research
Income unit	A person or group of persons related by marriage or parent-dependent child relationships who live within the same household and share income.
Indirect benefits	Goods and services provided free or subsidised by the government, e.g. government provision of education, health and housing.
Indirect tax	Tax paid on production inputs and tax paid by households on final products, e.g. taxes on petrol and tobacco.
ISS	Income Support Supplement
LFS	Labour Force Survey
MAA	Mature Age Allowance
Marginal effect	The change in the dependent variable (of an estimated model) for a marginal change in the independent variable.
Mature age person	Person aged 45-64.
Maximum contribution base	The cap on the employee's notional earnings base beyond which employers do not have to make Superannuation Guarantee contributions.
Microsimulation model	A quantitative model that utilises highly disaggregated data to estimate the impacts of policy changes or shocks to the system being examined.
MIP	Mortgage insurance premium
MITR	Marginal income tax rate
ML	Medicare levy
MPS	Monthly Population Survey
MPS	Minimum property standards
MTAWE	Male Total Average Weekly Earnings
NATSEM	National Centre from Social and Economic Modelling
NILF	Not In The Labour Force

Notional earnings base	For employers who were making superannuation contributions on behalf of their employees immediately before 21 August 1991, the earnings base that applied to the pre-21 August 1991 contributions; for employers who were not contributing immediately before 21 August 1991, the earnings base specified under an industrial award or an earnings base not lower than Ordinary Time Earnings.
NSA	Newstart Allowance
NT	Northern Territory
NTO	Non-refundable tax offset
OECD	Organisation of Economic Co-operation and Development
OPA	Means-tested pensions and allowance other than FTB and NSA
OTE	Ordinary Time Earnings
PA	Partner Allowance
PBS	Pharmaceutical Benefit Subsidies
PhA	Pharmaceutical Allowance
Poverty gap	The extent to which an elderly income unit falls below or above the poverty line.
Poverty line	A benchmark income level for an income unit type, where the income unit is deemed to be in poverty if its income falls below the benchmark level.
Poverty trap	Measure of the deterrence in small upward adjustments in work effort because of increasing tax liabilities and loss of government transfers.
PP	Parenting Payment
Principal limit	The maximum loan advance available to the borrower during home equity conversion.
Private income	Income from wages and salaries, profits and losses, superannuation and annuities, and investments.
PTO	Pensioner Tax Offset
Public housing rent subsidy	An indirect subsidy given to public renters where rent payments are set at a proportion of assessable income and

	capped at the market rent level.
RA	Rent Assistance
RBA	Reserve Bank of Australia
RIM	Retirement Income Modelling
RIS	Rental Investors Survey
RR	Replacement rate
RS	Public housing rent subsidy
SA	Sickness Allowance
SATO	Senior Australians Tax Offset
SG	Superannuation Guarantee
SIHC	Survey of Income and Housing Costs
SNI	Separate Net Income
SpB	Special Benefit
SS	Superannuation surcharge
STINMOD	Static Incomes Model
Superannuation Guarantee charge	Liability incurred by an employed person if the employer fails to provide the required amount of Superannuation Guarantee contribution.
TFR	Total Fertility Rate
UK	United Kingdom
Unemployment Trap	Measure of the deterrence of transitions into employment because disposable incomes when not working replace a large proportion of disposable incomes when working.
US	United States
WA	Widow Allowance
WEED	Weekly Earnings of Employees Distribution
YA	Youth Allowance
YT	Personal income tax