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The Impact on Residential Choice of the Family Home Exemption in Resource-Tested Transfer Programs

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Abstract

Many countries have policies offering transfers or other entitlements, subject to a resources test. In most cases, these exempt the family home. While the impacts of means-tested programs on saving and labor supply have been extensively studied, exempting the owner-occupier home has escaped analytic attention. We assess the exemption of the owner-occupied home from the Australian age-pension on residential mobility and housing trade-downs. Results suggest that this provision discourages trade-down behaviour.

Keywords: elderly mobility; housing; residential transition; means-testing

JEL Classification: I38; H5; J14; R2

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1. Introduction

Many industrialised countries offer transfers and entitlements contingent on a resource test; many of these exempt the family home.[1] In Australia, the value of the family home is not counted in the age-pension assets test.[2] Research on the incentive effects of means-testing, both in Australia and internationally, has mainly focused on savings and labour supply (Hubbard, Skinner, and Zeldes, 1994, 1995; Neumark and Powers, 1998, 2000; Powers, 1998; Gruber and Yelowtiz, 1999; Ziliak, 2003). But exemption of the owner-occupier home has escaped analytic attention.

The owner-occupied home is a core asset among mature age cohorts, a resource that can be used to help finance consumption in retirement. In Australia, home ownership continues at high levels throughout later life[3], even though half of retired households report spare capacity in their homes[4]. While the family home does not count towards the assets test, proceeds from the sale of the house do. Liquidating wealth held in the owner-occupied home will likely reduce age-pension entitlements.

In this paper we study residential transition among older Australians, and analyse the impact of age-pension rules on the trade-down decision. We find that residential mobility is rare in Australia. While pensioners have a higher probability of moving than those not on the age-pension, they have lower probability of trading-down as compared to non-pensioners.

Our findings, while based upon Australian policy structures, make a broader contribution by drawing attention to the importance of owner-occupier exemption provisions on decision-making. The reluctance of the elderly to trade-down their family homes under this type of means testing has important ramifications for resource allocation in the economy. If the exemption of the family home from the assets test does inhibit mobility and trade-down behaviour, then this price distortion is likely to be a serious source of economic inefficiency, restricting trades in an important market.

2. Data

We use the Household, Income and Labour Dynamics in Australia (HILDA) panel data-set, a nationally representative random-sample survey of private households in Australia, from 2001 to 2006.[5] We restrict our sample to people above the age of 65, the standard access age for the Australian age-

[1] In the US for example, the SSI does not include the family home in determining eligibility, and it is also excluded from Medicaid's asset limits.

[2] The age-pension in Australia is a means-tested welfare payment for people above the age of 65 and constitutes the major source of income for a large part of the age-group. The pension payment is subject to income and assets tests, and the owner-occupied home is exempt from the assets test.

[3] Bradbury, (2008).

[4] Australian Bureau of Statistics, Household Expenditure Survey, 2003-04.

[5] For more details see http://www.melbourneinstitute.com/hilda/

pension.[6] Detailed wealth estimates of households were collected in the second wave in 2002, and we therefore use the household data from this year (Wave 2) for our estimates.[7]

More than 80% of the elderly own their home outright.[8] 68% of home-owners receive the age-pension. The age-pension also makes up a large part of the annual income of those who are on the age-pension. We find that 4-6% of our sample has changed residence each year, between 2001 and 2006.

In order to retain the pension, a household can release into other assets an amount that ensures that it stays within the bounds of the assets test. This value would differ for each household. A household with a home that will sell for very little might be able to release the entire amount to other assets, switch to being a renter and still retain the pension. On the other hand, households with home values that are large will be constrained in how much they can trade down if they wish to continue receiving the age-pension.

We therefore calculate the actual difference between non-housing assets of households and the assets-test threshold applicable to them. We find that 66% of pensioners have homes with values greater than this difference between their non-housing assets and the full-pension threshold and 30% have family homes with value greater than the difference between the part-pension threshold and non-housing assets. We expect these latter households to be more constrained in the amount they can draw down from their owner-occupied home.

3. Estimation framework

A simple theoretical model adapted from Ermisch and Jenkins (1999) frames our empirical analysis. Optimal housing consumption in period t is seen as the solution to a dynamic optimization problem, in which moving costs can affect housing choices at the time of the move because of forward-looking behaviour. A trade-down is then an adjustment towards the optimum from an existing disequilibrium. We assume that optimal housing consumption in period t is given by

$$h_t = h(Y_t , p_t , Z_t , u_t , m_t)$$

Here, Y_t represents the income of the household. This includes interest income from household assets. pt is pension income, positive if the household is a recipient of the age-pension. Zt includes demographic characteristics including age and marital status. ut includes taste parameters, and mt is the cost of moving house.

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[6] It might be expected that people over-invest in housing in anticipation of the age-pension prior to retirement age. Cho and Sane (2011) have examined this issue and find evidence of the influence of the means-test on housing consumption post-retirement, but do not find a significant impact on wealth draw-down prior to retirement.

[7] A second wealth module was made available in 2006, but since we examine transitions till 2006, we do not use the 2006 wealth data in our analysis.

[8] For this reason, we use the value of the owner-occupied home in subsequent analysis, and do not separate out the mortgage payments.

Disequilibrium may arise because of aging, changes in marital status or changes in health. In the absence of the age-pension means-test, moves will be made when $|h_t - h_{(t-1)}| > k(m_t)$, where $k(m_t)$ is a function mapping the costs of moving. For households on the age-pension the threshold 'disequilibrium' for a move is made will include the potential loss of the age-pension, i.e. $|h_t - h_{t-1}| > (k(m_t) + p_t)$. We therefore expect households on the age-pension to be constrained in their trade-down behaviour. We use the random-effects (RE) probit specification to model the probability of a move in year t, and also estimate a selection model, restricting our sample to home-owners. Pension status may be endogenous with a move and trade-down, because a trade-down may make a respondent ineligible for the pension. We test for the endogeneity of the pension receipt variable; the Durbin-Wu-Hausman statistic of 0.85 (p-value: 0.36) indicates that pension status is not endogenous.

4. Results and discussion

Panel data estimates. We focus on the pension status of individuals. Results presented in Table 1 indicate that pensioners are more likely to move than non-pensioners. But pensioners are less likely than non-pensioners to trade-down (20% difference in probability).

We also find that the greater the ratio of home-value to non-pension income, the greater is mobility, and the greater the probability of a trade-down. This is consistent with the idea that households who do not stand to lose the age-pension will have a greater propensity to trade-down. The economic significance of this effect, however is very small (0.07% difference in probability).

Table 1: Estimates of a probability of a move and trade down

	Pr(move)	**Pr(trade-down)**	
Variables (t-1)	1	3	4 Partial effects
Age	-.309 (.127) ***	-.405 (.35)	-0.13 (0.09)
Age square	.002 (.0008)***	0.003 (0.002)	0.0008(0.0006)
Years in current home	-.015 (0.003)***	0.013 (0.009)	0.0042 (0.002)
Male	.164 (.097)*	0.25 (0.29)	0.07 (0.08)
Diploma holders	-.0357 (.093)	-.39 (.285)	-0.12 (0.07)
Graduates	-.368 (.208)*	.60 (.77)	0.19 (0.22)
Financial satisfaction	.029 (.021)	.71 (.31)**	0.22 (0.08)***
Satisfaction with home	-.035 (.029)	.66 (.55)	0.20 (0.15)
Satisfaction with neighbourhood	-.059 (.026)**	.044 (.065)	0.014 (0.018)
Lone person household	.044 (.097)	-.038 (.087)	-0.012 (0.025)
Other household	-.293 (.165)*	-.055 (.073)	-0.015 (0.02)
Have a health	-.0004 (0.08)	-.022 (0.25)	-.007 (0.075)

problem			
Worse health than before	-.0171 (.103)	-.305 (.319)	-.094 (.088)
Pensioner	.161 (.095)*	-.601 (0.33)*	-.196 (.091)**
Home value: non pension income ($000)	.0008 (.00027)***	0.002 (0.001)*	0.0007 (0.0003)**
House price index	-.0009 (.0048)	0.009 (0.013)	0.002 (0.004)
Constant	10.81 (4.96)**	15.09 (13.86)	
No. of observations	4307	165	
Log-likelihood	-654.08	-93.35	
rho	.11 (.073)*	.10 (0.37)	

Standard errors in parenthesis

Significance code: ***0.01; **0.05; *0.1

Selection model. We first test the significance and validity of the exclusion restrictions, against the null hypothesis that the coefficients on all of the restrictions in the selection equation were zero. The chi-square statistic on the joint significance of the four restrictions: family type, financial satisfaction, satisfaction with neighbourhood and satisfaction with home, was 5.54 (p value: 0.35). We therefore do not reject the null, and justify our exclusion restrictions.

Results are presented in Table 2. We find that pensioners are more likely to move than non-pensioners, and less likely to trade-down. Pensioners are poorer than non-pensioners in general and it would be expected that if they move, they liquidate wealth from the family home to finance consumption. However, the pension assets test constrains the pension recipients in the amount they can draw down from the family home before their pension gets reduced, or eliminated altogether.

Table 2: Estimates of the selection model

	Estimates	Standard error
Trade-down		
Intercept	-7.5	19.29
Age	0.31	0.51
Age-square	-0.002	0.0030
Male	-1.37**	0.45
Health problem	0.08	0.45
Home value: distance from full pension threshold	0.05	0.06
Home value: distance from part pension threshold	0.02	0.04
Pensioner	-0.97**	0.49

Move		
Intercept	10.93	7.62
Age	-0.3	0.2
Age-square	0.002	0.001
Sex	0.22	0.16
Health problem	-0.26*	0.15
Lone person household	-0.03	0.16
Other household	-0.16	0.26
Financial satisfaction	0.068*	0.04
Neighbourhood satisfaction	-0.17***	0.04
Home satisfaction	-0.09*	0.05
Home value: distance from full pension threshold	0.00010	0.00200
Home value: distance from part pension thresholds	0.02	0.01
Pensioner	0.41**	0.17
Rho	-0.51	0.48
Rho=0	0.72	
Log likelihood	-217.47	
No. of observations	1133	

*Significance code: ***0.01; **0.05; *0.1*

We then derive the probability of a move, and a trade-down conditional upon the move, for each respondent in the sample. By calculating the means of these estimated probabilities over the entire sample and over selected groups, we are able to compare an "average" respondent across the groups, reported in Table 3.

Table 3: Mean estimated probabilities

	Pr (Trade-down =1 | move =1)	Pr (move =1)	N
All	0.54 (0.013)	0.045 (0.001)	1132
Pensioners	0.522 (0.0096)***	0.0531 (0.00169)***	764
Non-pensioners	0.7322 (0.0108)	0.0284 (0.0016)	369
Assets <= full pension thresholds	0.59 (0.009)	0.046 (0.0016)	728
Assets between the full and part pension thresholds	0.518 (0.02)***	0.05 (0.0033)	185
Assets >= part pension	0.65 (0.016)	0.035 (0.0025)	220

thresholds			

The numbers in the parenthesis indicate standard errors.

*** indicates significance at the 1% level.

We find that pensioners on the whole have a greater predicted probability of moving but a lower predicted probability of trading down conditional upon moving than non-pensioners. We then present the predicted probabilities of those whose assets are lower than the full pension cut-off and those whose assets are between the full and part pension cut-offs. We find that those whose assets are between the two thresholds have a lower conditional probability of trading down than the other two groups. People in this group move significantly more than the other two groups as well. This can be attributed to the impact of the assets test: those closer to losing the age-pension have a lower probability of trading down home wealth.

5. Conclusion

This paper studies the mobility behaviour of the elderly in Australia, with a particular focus on the owner-occupier housing exemption from the means tests in the age pension.

First, pensioners exhibit greater mobility, but lower conditional trade-downs than non-pensioners. The potential loss of the age pension discourages trade-downs. Second, amongst pensioners, those with assets lower than the permissible cut-offs exhibit a higher conditional probability of a trade-down, but a lower probability of a move. This result is significant for pensioners between the two thresholds, as compared to those above and below the thresholds. In sum, trade-downs seem to be inhibited amongst elderly pensioners.

Although our empirical analysis is based on Australian data and policy, it raises important questions for public policy generally, since housing is an important asset in most national economies. Increased flexibility in the consumption of housing services by the elderly might be expected to release housing stock to the market.

6. Data disclaimer

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7. References

Bradbury, Bruce (2008): "Housing Wealth as Retirement Saving: Does the Australian Model Lead to Over-Consumption of Housing?," Working paper series, Luxembourg Wealth Study.

Cho, Sang-Wook (Stanley), and Renuka Sane (2011): "Means-testing and homeownership: Is there a link?," *Macroeconomic Dynamics* (forthcoming).

Ermisch, John F., and Stephen P. Jenkins (1999): "Retirement and housing adjustment in later life: Evidence from the British Household Panel Survey," *Labour Economics*, 6, 311–333.

Gruber, Jonathan, and Aaron Yelowtiz (1999): "Public Health Insurance and Private Savings," *The Journal of Political Economy*, 107(6), 1249–1274.

Hubbard, R. Glenn, Jonathan Skinner, and Stephen P. Zeldes (1994): "Expanding the Life-Cycle model: Precautionary Saving and Public Policy," *The American Economic Review*, 84(2), 174–179, Papers and proceedings of the Hundred and Sixth Annual Meeting of the American Economic Association.

Hubbard, R. Glenn, Jonathan Skinner, and Stephen P. Zeldes (1995): "Precautionary Saving and Social Insurance," *The Journal of Political Economy*, 103(2), 360–399.

Neumark, David, and Elizabeth Powers (1998): "The effect of means-tested income support for the elderly on pre-retirement saving: evidence from the SSI program in the US," *Journal of Public Economics*, 68, 181–206.

Neumark, David, and Elizabeth Powers (2000): "Welfare for the elderly: the effects of SSI on pre-retirement labor supply," *Journal of Public Economics*, 78, 51–80.

Powers, Elizabeth T. (1998): "Does means-testing welfare discourage saving? evidence from a change in AFDC policy in the United States," *Journal of Public Economics*, 68, 33–53.

Sefton, James, Justin van de Ven, and Martin Weale (2008): "Means Testing Retirement Benefits: fostering equity or discouraging savings?," *The Economic Journal*, 118, 556–590.

Ziliak, James P. (2003): "Income Transfers and Assests of the Poor," *The Review of Economics and Statistics*, 85(1), 63–76.