Residential Transition Amongst the Australian Elderly

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1 Executive Summary

- Moving house occurs much less frequently for 65+ households than younger households. There are probably multiple reasons for this. Because of transactions costs and associated one-off costs of moving, moving will occur only infrequently. We argue in this paper that while changes in family circumstances often trigger a decision to move, economic considerations underlie the nature of the choices made, if not their timing.

- It is plausible that while moving between retirement and the time when aged care is required is relatively rare, increasing longevity and a longer retirement may make an additional lifetime move more likely. Consistent with the trigger analysis, this would possibly take place following retirement. Any increase in post retirement trades is likely to increase interest in, and access to, retirement village accommodation.

- What evidence we have suggests that owner-occupiers whose household head is 65 and older consume more housing services then they would ideally like. There are a number of possible reasons for this. Here, we emphasise the importance of taxation, and, especially, age pension provisions in discouraging elders from trading down their large homes. Trading down an owner-occupied home can precipitate loss of the age pensions under a large number of plausible scenarios. This has costs not only to the individuals concerned; the housing market as a whole is unnecessarily restricted, and house prices are probably higher than they would otherwise be. This disincentive to trade down will become more important as opportunities for another lifetime move increase. Policy reforms aimed at liberating the housing market should be persuasive to policymakers.

- A policy innovation in which financial surplus from owner-occupier trade-down is quarantined from the age pension assets test would not only increase the probability of post-retirement moves, but also help to rationalise housing resource allocation nationally. In large cities, at least, this would mitigate the major social problem of housing affordability.

- When elderly households do move, the evidence suggests strong attraction to their local area. This is indicated not only by interview responses, but also by behaviour. Australian evidence suggests that nearly half of all moves by 65+ households are within a radius of 10 kilometers, indicating a strong attraction to a familiar locality. This is important for senior living planning: it suggests that senior living opportunities will be valued by communities in their own precincts.

2 Introduction

In most industrialised countries, and in Australia in particular, the owner-occupied home is a central asset among mature age cohorts. In Australia, the value of the owner-occupier home is greater on average than the value of all financial assets, including superannuation (AMP.NATSEM 2007). It follows that when the prospect of selling the home confronts households, financial considerations loom large. While non-economic factors often determine the timing of a move, the financial implications of the change influence its nature, and may dictate whether such an outcome is realised.

For older households particularly, the decision is complicated by considerations of Australia's taxation rules, and especially, means tested age pension. The owner-occupied home is a unique asset in Australia. It attracts no income tax, no capital gains tax, and its value does not count in the age pension's asset test.[1] It follows that any decision to liquidate wealth held in the owner-occupied home may expose the seller to tax liability, and may reduce age pension entitlements. Such considerations suggest that inhibitions on trade in residential real estate may be focused on the demand side of the market. For the retirement village industry in particular, this stands in contrast to much previous analysis, where supply side restrictions have been emphasised. [2] The analysis in this paper indicates that demand side issues may be more important than is currently recognised. In turn, this suggests that the relatively minor role of retirement village accommodation in residence choice among older households may be attributable, at least in part, to the residential immobility in general among older cohorts. To the extent that this is true, the impact is much wider than just the retirement village industry.

These initial observations motivate the paper. Its purpose is to document evidence on residential transition among older Australians, and to explore their financial implications. We begin section 3 with an overview of what is known about home ownership and transition behaviour internationally. In section 4 we provide a sketch of the elderly in Australia and what we know of their transition behaviour. Our focus here is on households whose head is 65+. We then document evidence on moving patterns among the elderly in Australia, along with the motivations for the change. With this background, in section 5 we analyse the financial impacts of trading down the owner-occupied home, either to provide resources for increased consumption or for other reasons, taking account of age pension rules and recent changes (September 2007) to superannuation (pension) regulation and taxation. It is important here to note the distinction between trading and equity draw-down. Equity draw-down, or associated strategies for unlocking housing equity, such as reverse mortgage purchase, allow additional consumption to be financed, but do not address the issue of adjusting inappropriate housing service flows.

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[1] While the assets test scales are different for owner-occupiers and renters, the value of the home does not itself enter into the assets test.

[2] (Stimson 2002) separates the "push" and "pull" factors that lead people to move into a retirement village.

We conclude that while trading down can improve cash flow and therefore facilitate higher consumption levels, overall it is likely that the seller will lose from the change. This result stems primarily from the age pension rules - for many of our examples, the assets test simply cuts age pension income to zero. As well, the value of the home as a vehicle for precautionary saving or as a store for bequests is reduced. It follows that changes to age pension assets test rules may allow greater flexibility in residential transition among the elderly. We are able to show that this would have a positive impact not only on older people wishing to trade down their residence, but also on resource allocation in the housing market generally. The incidence of a large house being occupied by elderly people to preserve their wealth in a tax and age-pension sheltered form would decline.

3   Literature review

Research into the reasons why households move, and in particular why elderly households move, is surprisingly sparse. It is even sometimes difficult to access data on the incidence of moving. Most research has come from the US. Economic research there has focused more on the home as an asset, and has investigated behaviour around the draw-down of housing equity, either through home equity loans or other instruments such as reverse mortgages. As we pointed out in the introduction, this is a separate question from that of housing service consumption, the major focus of our enquiry.

The US evidence on moving does suggest moving triggers which are consistent with analysis in other countries, and our own findings reported below. For example, Venti and Wise (1987, 1989, 2001), Feinstein & McFadden (1987) find that moving is often a response to a precipitating shock, such as death of a spouse or change in marital status. [3] But the incidence of moving among elderly households remains low in the US, relative to the non-elderly, although not as low as Australia.

An important and relatively neglected paper by (Reschovsky 1990) articulates a model which focuses on the nature and quantity of housing services consumed. He begins by reporting that in the US, households with heads under age 65 are 3.5 times more likely to move in a year than older households. The differential remains after taking into account change in marital status. He next addresses the issue of tenure, proposing that renters are able to adjust housing services to suit their needs relatively easily, while owners face more substantial adjustment costs. In his terminology, owners are more likely to remain in a position of housing disequilibrium, because the costs of adjusting to more appropriate accommodation are too high.

He found that elderly homeowners are more likely to be in disequilibrium than others, and

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[3]The greater influence of non-economic factors on the mobility decision as compared to the economic factors has also been documented by other researchers such as Vanderhart (1994), Ellwood & Kane (1989), Boersch-Supan (1989), Merrill (1984), Megbolugbe et al. (1997).

that nearly all who are in disequilibrium over-consume rather than under-consume housing services. He is unable to shed much light on the reasons why households do not move, however. Attachment to location is a possibility, although this would not preclude downsizing. He suggests that search costs might be greater for elderly households.

Analytic models of the moving decision have been slow to develop. The formal approach which is most consistent with our own analysis is to differentiate between moving triggers and the determinants of housing choice, once the decision to move has been made. (VanderHart 1998) carries out such an analysis, for the US, on households whose heads are aged 50 or more. He uses a dynamic choice technique to take account of the influence of expected future economic conditions of the household in the present. Once this is recognised, economic factors such as income and financial assets were found to be more important than the literature had thus far suggested. He argues that non-economic factors impact the decision to move by changing the economic status of the elderly.

As indicated above, a separate issue addressed by the literature relates to the variations in housing equity through time. The apparent reluctance of elderly households to draw down equity in their homes (either by trading down or by borrowing against the home equity) is a puzzle for economists. It appears to contravene patterns of life-cycle consumption predicted by standard economic theory and has therefore been much analysed (Venti & Wise 1987). Venti & Wise (1989) claimed that elderly had no desire to reduce housing equity, while Venti & Wise (2001) concluded that families who sell and buy a new home increased home equity on average, and again on an average, households tend to increase home equity when they move to a new house.

4   The elderly in Australia: income wealth and residential transition

We begin this section by describing the living, housing and wealth conditions of households where the household head is 65 years or above. The 2003-04 ABS Housing Expenditure Survey (HES) provides information on the income, assets and expenditure patterns of households in Australia.

Table 1, reports the distribution of households whose heads fall in the four age groups we focus on in this paper. [4]

Most elderly households fall into one of three life-cycle groups. These are a couple with non-dependent children, a couple only, or a lone person. (See Table 2). At older ages, the lone-person households come to dominate and households with non dependent children fall away. Among 80 plus households, 61.3% are lone persons.

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[4]The numbers here do not imply 20% of the whole sample, but 20% of the sample above the age of 65.

Table 1 Distribution by age group

	%	SE
65 to 69 years	29.4	1.4
70 to 74 years	25.8	1.3
75 to 79 years	24.3	1.3
80 years and over	20.5	1.2

Table 2 Life cycle group of the elderly

Family type	65-69	70-74	75-79	80 plus
Couple, non-dependent children	9.8	5.9	2.4	4.3
	(1.8)	(1.5)	(1.2)	(1.5)
Couple only	46.2	45.5	45.5	31.0
	(2.9)	(2.9)	(3.1)	(3.1)
Lone person	38.9	41.0	48.5	61.3
	(2.9)	(2.9)	(3.1)	(3.3)

We then look at the asset and incomes of these age groups with particular focus on the family home. Consistent with most anecdotal and other published evidence[5] we find that more than 75% of these people own their house without a mortgage. (See Table 3). Ownership is higher in the 70-79 age bracket, but falls slightly in the 80 plus age group.

Table 3 Tenure of the elderly (%)

Tenure type	65-69	70-74	75-79	80 plus
Owner without a mortgage	75.1	82.0	81.2	77.8
	(2.63)	(2.32)	(2.28)	(2.84)
Renter	16.6	12.4	12.4	14.5
	(2.26)	(2.10)	(1.91)	(2.48)
Other	8.0	5.6	6.4	7.6
	(2.5)	(1.74)	(2.0)	(2.5)

The family home is one of the most important assets in net wealth. For most age-groups, the estimated sale price of the house is at least 50% of their net wealth. (See Table 4).

Survey participants were asked about the adequacy of their house and the number of bedrooms that they had to spare. Again, we find that people above the age of 65 have at least 2-3 bedrooms to spare. For example, of the 65-69 age group, about 48% said that they had two bedrooms spare. The number was 55% for the 75-79 age group and 40% for the 80 plus age group, indicating that there is spare capacity in the houses that the elderly live in. This is consistent with the findings of Reschovsky (1990) for the US.

More than 50% of the income of the 65+ households comes from government pensions (See Table 5).

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[5]See Olsberg & Winters (2005).

Table 4 House and net assets ('000)

	1Q	Mean	Median	3Q
65-69 years				
Sale price of house	126	290	250	400
Net wealth	223	664	433	800
Ratio of the two	0.17	0.46	0.49	0.72
70-74 years				
Sale price of house	120	275	200	350
Net wealth	202	547	380	602
Ratio of the two	0.32	0.53	0.61	0.77
75-79 years				
Sale price of house	101	290	240	399
Net wealth	194	579	345	591
Ratio of the two	0.34	0.55	0.63	0.80
80 plus				
Sale price of house	85	286	200	400
Net wealth	160	484	297	613
Ratio of the two	0.31	0.54	0.65	0.80

It is important to note here that the ratios are not a division of the sale price and net wealth numbers. The ratio is first calculated for all observations and then the distributions of the ratios is reported.

Table 5 Household weekly income

	1Q	Mean	Median	3Q
65-69 years				
Govt. pensions	58.57	233.7	230.00	370.00
Total income	282.01	658.0	446.54	742.12
Ratio	0.09	0.57	0.68	0.99
70-74 years				
Govt. pensions	200.44	268.1	269.78	381.57
Total income	286.00	518.5	424.20	600.66
Ratio	0.37		0.84	0.99
75-79 years				
Govt. pensions	198.37	268.4	264.29	370.00
Total income	269.73	509.6	389.96	543.59
Ratio	0.44		0.93	1.00
80 years and above				
Govt. pensions	218.76	267.9	239.00	370.48
Total income	244.00	454.9	359.16	513.13
Ratio	0.51	0.73	0.93	1.00

It is important to note here that the ratios are not a division of the pensions and total income numbers. The ratio is first calculated for all observations and then the distribution of the ratios is reported.

A high dependence on the age pension would indicate a living standard that was far from lavish. We find some evidence for the same in the answer to the management of household income question. About 54% (SE: 2.9) of 65-69 year old households claim that they just break-even most weeks and about 19% (SE: 2.3) say that they spend more money than they get. The just manage to break-even number is 54% (SE:3) for the 70-74 year age group, 51% (SE:3) for the 75-79 and 42.5% (SE:3) for the 80 plus age groups. These numbers can be

further analysed by family type and age group (See Table 6). We find that at all age groups, lone persons depend on government pensions and allowances to a greater extent than couple families. This differential however becomes smaller at older age-groups. Similarly fewer lone persons own their home as compared to couples, perhaps, implying that at older ages, lone persons switch to renting more than couples.

Table 6 Differences between couples and lone persons

	65-69		70-74		75-79		80 plus	
	Lone	Couple	Lone	Couple	Lone	Couple	Lone	Couple
Govt. pensions as								
principal source of income	70.5	58.9	76.7	69.8	75.0	71.1	78.8	76.6
	(4.4)	(3.9)	(4.0)	(3.8)	(4.3)	(4.0)	(3.5)	(4.7)
Just break even	59.1	49.4	46.3	59.4	50.3	51.5	39.3	46.8
	(14.7)	(4.0)	(4.7)	(4.2)	(4.7)	(4.4)	(4.2)	(5.9)
2 bedrooms spare	46.9	58.3	43.4	61.1	30.6	62.2	34.6	32.5
	(4.8)	(4.0)	(4.7)	(4.1)	(4.0)	(4.3)	(4.0)	(5.7)
Own the house outright	61.8	84.3	73.9	87.9	73.5	91.1	76.5	79.6
	(4.9)	(3.0)	(4.3)	(2.6)	(3.8)	(2.3)	(3.7)	(4.0)

Our analysis of the socio-economic status of 65+ households in Australia indicate that they are more likely to be a couple only or a lone-person household. Bulk of this group owns houses that are bigger than current requirement, indicating an overconsumption of housing services. A majority of them depend on the age-pension for most part of their income. About 50% of them just about break-even most weeks.

We now turn to the question of residential transition and housing trades among the elderly. Between 1996 and 2001 census data reveals that 21% of Australians aged 65 and over moved residence, about 4% each year (Olsberg & Winters 2005).

More detailed information is available from the Household, Income and Labour Dynamics (HILDA) database. HILDA is a panel data-set, interviewing people every year. We have data for four waves. There are two kinds of respondents in HILDA: those that have been in the sample since wave 1 and those that enter the sample in every wave. We focus on the former, i.e. the balanced panel of individual respondents where we track the same people for four years.

Table 7 shows the percentage of people who moved homes. 4.8% of the 65+ changed address between Waves 1 and 2. As the panel ages, the percentage of the movers drops, though slightly to 4.6% and 4.1%. If we combine the movements recorded in any wave and look at the aggregate movement across any of the four years, we see that about 11.5% (SE: 1.1%) of the people changed address. This is lower than the census estimate, perhaps because of the nature of the panel data. On the whole the panel data is likely to generate more realistic estimates of mobility. To understand the age profile of the people who have moved, we divide the sample in three age categories: those between 65-69, those between 70-79 and those who are above 80 years at the time of the first interview i.e. in Wave 2. (See Table 8). We find that 65-69 year olds have a 0.118 probability of moving as against a 0.109 probability of 70

Table 7 Responding person whose address has changed between waves, balanced panel

Wave	%	Std. Error
1-2	4.8	0.75
2-3	4.6	0.69
3-4	4.1	0.56

to 79 year olds. The greatest probability of a move is of 80 plus at 0.145. This agrees with intuitive thinking that greater movement is seen either amongst the young old or the old old.

Table 8 Incidence of movement by age

	Not moved	Moved	Total	Prob.
65 to 69	455	61	516	0.118
70 to 79	705	87	792	0.109
80 plus	212	36	248	0.145
Total	1372	184	1556	0.118

In Table 9, we find that it is health and the desire to be close to friends and family that dominate the reason for moving, consistent with international evidence.

Table 9 Top five reasons of moving in the three waves

Wave 1-2	Wave 2-3	Wave 3-4
Health	Other	Health
Friends/family	Health	Lifestyle change
To small place	Friends/family	Friends/family
Property n.a.	To large place	Close to amenities
Close to amenities	To small place	Own place

Table 10 shows the distance moved by people who changed address since the last wave.[6] Nearly 30% have moved within their postcode and a further 12% have moved outside their postcode but within a radius of 5 km. Half of all moves are within a radius of 10km. Reschovsky (1990) reports that most moves made by the elderly in the US involve movements within the same county or metropolitan area. This is also consistent with (Olsberg & Winters 2005) which reports that 83% of their respondents indicated that their attachment to location was not necessarily to their own home but to the local area.

We look at the probability of movement depending on the tenure of the person in Wave 2. As Table 11 points out persons who rent have a 0.206 probability of moving as opposed to a 0.106 probability for homeowners.

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[6]The within postcode shows the number of people who moved within their postcode. So even if the

Table 10 Distance moved

Distance	Wave 1-2	Wave 2-3	Wave 3-4
Within postcode	30.1	34.6	24.8
	(6.3)	(7.0)	(5.6)
1-5 km	15.3	11.2	9.5
	(5.8)	(5.0)	(4.2)
5-9 km	2.0	11.3	9.0
	(1.5)	(4.1)	(4.2)
10-19 km	14.3	7.3	7.2
	(7.1)	(5.0)	(3.0)
20-49 km	17.2	12.1	17.3
	(5.2)	(5.0)	(5.1)
50-99 km	5.8	6.9	13.7
	(3.2)	(3.6)	(4.7)
100-499 km	6.2	8.7	13.9
	(3.5)	(3.5)	(7.1)
500 plus km	9.0	7.9	4.6
	(4.1)	(3.3)	(2.6)

Table 11 Probability of movement by tenure

	Not moved	Moved	Total	Prob.
Own	1160	138	1298	0.106
Rent	154	40	194	0.206
Life tenure	58	6	64	0.094
Total	1372	184	1556	0.118

In conclusion, the HILDA database does provide us with a number on movement of people between years. It also seems to indicate the significance of non-economic factors such as health and friends/family on the timing of the decision to move. However, what is not yet clear is whether these non-economic factors influence the economic calculus of the move decision indirectly.

5 Financial analysis

One of our hypotheses is that financial considerations of a trade-down inhibit people from selling their owner-occupied home and moving to a smaller one. Taxation and age-pension eligibility have traditionally driven over-investment in owner occupied housing in Australia. For older households however, taxation considerations are now much less important since

distance within the postcode is more than 2 km, it is coded as within postcode. The distance in kms indicates the distance when a person has moved to a new postcode.

new superannuation regulations offer the opportunities for capital income which is largely tax-exempt. However, age pension eligibility remains a significant financial issue. In this section, we use the existing regulations about value and eligibility of the age-pension in Australia to study the impact of a trade-down on finances in general and the age pension in particular.

In any analysis of residential choice, especially among the elderly, it is important to identify at the outset the services generated by owning a home vis a vis alternative tenures. For the current age group 65 and over, in most cases in Australia, home ownership has been a shrewd investment, both because of asset value appreciation and because of preferential tax treatment, and more than 70% of households aged 65 and over are owner-occupiers. But home ownership provides other services as well. Most obviously, it provides accommodation services, represented in our financial analysis as an imputed income flow, valued by the occupier. But two additional insurance type services are also important. First, and following from the imputed income point, it provides insurance against rental fluctuations through time, an important uncertainty, particularly in a stage of the life cycle when labour supply adjustments are becoming more constrained.Secondly, both the asset itself, and its future appreciation, provide a form of precautionary saving which will be diminished in any trade down. A family home also has value as a bequest to children. These points need to be borne in mind in the analysis which follows.

If we interpret the limited evidence available on residential mobility as suggesting that moves are triggered by some major change in personal circumstances, we need to invent a way of representing this in accounting terms. We do this by assuming that the change in circumstance reduces owner-occupier imputed income. Implicitly we are assuming that the non-economic trigger has economic consequences, and it is the calculations around this which will dictate choice. In what follows, we take several typical cases, and analyse the relative impacts on household finances following from this move.

To fix ideas, we begin with a simple example. Imagine a world where asset appreciation and returns, and other financial variables, are known and fixed. Values for these variables are given in Table 12. Before the trigger takes effect, we have a more or less retired couple[7], drawing down the full age pension, receiving a small private income, and owning a house worth $1 million. They have enough financial income to manage. However, the death of the husband precipitates a change in economic circumstances. The reduction in age pension income is offset by the reduction in requirements. But the widow now finds the house too large, and difficult to maintain, her attachment to the home diminishes, and the value she places on the imputed income flow falls, from our assumed rate of 3%, or $30000, to 1.5%, or $15000, per year. Panel A of Table 13 specifies the financial impact of this change.

The widow now investigates trading down, a sensible move in a neutral fiscal structure,

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[7]From age 65, it is necessary to satisfy a work test in order to be able to contribute to superannuation. The work test requires that 40 hours paid work be completed in a period of not more than 30 consecutive days in the financial year in which the contributions are made.

Table 12 Values of the variables in our analysis

Housing	
Rate of return for imputed income	
Before a non-economic shock	3%
After a non-economic shock	1.5%
Capital gain on the house	2%
Financial assets	
Rate of return	5%
Age pension rules	
Amount of the pension	
Single person	$525.1 p.f.
Couple	$877.0 p.f.
Cut-off for assets test for full pension	
Single person	$166,750
Couple	$236,500
Cut-off for assets test for part pension	
Single person	$343,750
Couple	$531,000
Cut-off for income test for full pension	
Single person	$132 p.f.
Couple	$233 p.f.
Cut-off for income test for part pension	
Single person	Less than $1,459.25 p.f.
Couple	Less than $2,439 p.f.
Rule for assets test cut-off	$1.5 reduced, per $1000 above the full pension cut-off and below the part-pension cut-off.
Rule for income test cut-off	Rate of pension reduced by 40 cents in the dollar for income over the full-pension cut-off.

Table 13 Example of impact of trade-down

	Financial income			Housing income		
	Income	Age pension	Inv. income	Imputed income	Cap. gain	Total
Panel A						
Before	$3,000	$22,802	$0	$30,000	$20,000	$75,802
After	$3,000	$13,653	$0	$15,000	$20,000	$51,653
Panel B						
Trade down	$3,000	$0	$22,000	$15,000	$10,000	$50,000

because the rate of return on the home is now less than she would earn in the financial market. The impact of the means test, especially the assets test, on the age pension, destroys this neutrality. If she were to trade down to the point of re-establishing the 3% imputed income return on housing (that is, buy a property worth half as much), then she would lose all her age pension entitlements. Panel B specifies the financial consequences of this decision.

To explain this in more detail, we now get down to the specifics. We look at super as an avenue of investing the surplus from the trade-down because we believe that with the new simple super rules, super offers the best investment opportunities for the elderly. People aged 60 and over can now invest in super, and simultaneously withdraw benefits at highly concessional tax rates. If they make undeducted contributions i.e. contributions on whom a tax has already been paid, the contributions tax of 15% is not levied. However, people in this age group can only invest $150,000 per year. People under the age of 65 can bring forward two years of contributions i.e. invest $450,000 at one instance and then not invest anything for the next two years. As a simplification, we therefore assume that our representative person sells the house and invests the proceeds from the sale of the house (if above $150,000) at age 64.

When investing in super there are essentially two choices:

- Stay in accumulation mode: This implies that the corpus is not drawn-down. It attracts an earnings tax of 15%.

- Move to pension mode: This implies that the individual can draw down an income. The minimum amount that must be drawn down is 5% of the corpus for a 65 year old. For a $440,000 investment, this amounts to $22,000 mentioned in the table earlier. The corpus then does not attract the 15% earnings tax. Under these circumstances, subsequent superannuation contributions can still be made by setting up a second fund.

In most of our calculations we assume that the person chooses the pension mode.

We look at three sets of stylized examples: when, before moving, the household receives

- No age pension.

- Full age pension.

- Part age pension.

In all the cases we find that our representative individual loses his entitlement to the age pension. We must also be careful to note here that this is just one scenario where the person has traded down 50% of the value of the house. For different scenarios, there might be an optimal trade-down size. In this situation, however, we find that his cash-flow situation improves. However, there is an element of uncertainty with the cash-flow from super as opposed to a regular age-pension from the government. Loss of the age pension also implies a loss of other entitlements such as the many concessions given by state and local governments to pensioners.

5.1   No age pension

We study a single person who does not get the age pension as his fortnightly income of $1500 is above the cut-off of $1459.25 for even a part pension. Our representative couple earns a

fortnightly income of more than $2439.

Had she continued to own the $1 million house she would have earned a 2% capital gain on the $1 million, i.e. $20,000. Now she earns a capital gain of 2% on the $0.5 million home i.e. $10,000.

Suppose the transactions costs total $60,000. She then invests the $440,000 in a super fund and immediately chooses to go into a pension mode for the full $440,000. At a minimum draw-down of 5% she has to withdraw at least $22,000 every year or $846.15 every fortnight. Her total fortnightly income is now $2346.15, clearly more than she was earning before.

Her net gain therefore is $32,000. This is calculated as follows

- $22,000 that she consumes plus
- $10,000 net capital gain (from the home).

5.2 Full age pension

We now turn to the full age pension case: neither the income nor the assets test binds. Assets must be worth less than $166,750 and the maximum fortnightly income is $132. We assume a fortnightly income of $132 and assets worth $166,750.

She invests $440,000 in super and chooses a pension mode. At a minimum draw-down of 5% she has to draw down a minimum of $22,000 which is $846.15 every fortnight.

Her income without the age pension is $846.15 + $132 = $978.15. But now her income and assets are both above the limit for full pension. His assets of $440,000 + $166,750 are beyond the part pension limit of as well. As a result she loses her pension.

Her net gain therefore is $18,347.4 for the first year. This is calculated as follows

- $22,000 that she draws down, minus
- $13,652.6 that she loses from the age pension, plus
- $10,000 net capital gain.

The numbers for a couple would be slightly different in this case. Suppose the couple has a fortnightly income of $232 and assets worth $236,500. And now suppose they invest the $440,000 in super. They draw-down $22,000 which is $846.15 every fortnight. Their new total income is $232 + $846.15 = $1078.15. However they have lost their age pension as their assets are above the limit of $531,000 for even a part pension. Their net gain is $9,198. This is calculated as follows

- $22,000 they draw down, minus
- $22,802 they lose in age pension, plus

- $10,000 net capital gain.

5.3   Part age pension

In this case we assume that the person gets a part age pension when she does not meet either the assets or the income test requirements. Suppose his assets are greater than the limit for the full pension i.e. suppose they are $343,750. Her part age pension therefore is $259.6 per fortnight. Her income from other sources is $132 and total fortnightly income is $391.6.

She invests $440,000 in super and chooses a pension mode. At a minimum draw-down of 5% she has to draw down a minimum of $22,000 which is $846.15 every fortnight. She ceases to get a pension as with the $440,000 corpus, she does not qualify for the part pension as well. Her total fortnightly income is therefore $978.15.

Her net gain therefore is $25,250.4 for the first year. This is calculated as follows

- $22,000 that she draws down, minus

- $6,749.6 that she loses from the age pension, plus

- $10,000 net capital appreciation.

In the case of a couple we assume that the couple has assets worth $531,000 and therefore earn a part pension of $435.25 per fortnight. Their other income includes $232 per fortnight. The total income thus is $667.25. Now suppose they sell the house. The draw-down is $22,000. But they have lost their pension. Their net gain therefore is $20,683.5. This is calculated as follows

- $22,000 that they draw down, minus

- $11,316.5 that they lose in pension, plus

- $10,000 net capital appreciation.

We now estimate the percentage of the elderly who would lose their age-pension after a trade-down of 40% i.e. moving into a house that is 60% of the value of the former house. We used the HES data on house-values, net wealth, and current pension of people who are 65 years and above. We adjust these numbers which are as of 2003-04[8] to reflect the values in 2006-07. We find that amongst the 65-69 year olds, without the sale of the house, 19% of the respondents had non-housing wealth greater than $531,000.[9] After a trade-down this number increased to about 30%. We also calculate the percentage of people who lose a pension before and after the trade-down.

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[8]We have assumed a capital appreciation to the house of 2% and the net wealth to grow by 4%

[9]We use this number as this is the cut-off for part pension for couples. This is the largest value of assets one can have before losing the age pension owing to the assets test completely.

Table 14 Percentage of people with zero age pension

	Lone person		Couple	
	Before	After	Before	After
65-69 years	19	30	28	39
70-74 years	11	16	17	24
75-79 years	12	17	12	21
80 plus	9	21	7	16

As Table 14 reports, with a trade-down more people lose the pension in each age-group and life-cycle group. For example 9% of 80 plus lone-person households did not receive an age pension before a trade-down. This number would be 21% if everyone decided to trade-down. The corresponding numbers are 7% and 16% for the couples in the same age-group. These numbers reflect the cases where people would completely lose their pension. However, there would also be a significant number of people who would probably go on from a full pension to a part-pension status.

6 Policy implications

The above analysis, focused on the age pension assets test, suggests a major price distortion in reducing the owner occupied housing assets for 65+households in Australia. In economic efficiency terms, this is likely to be a serious source of economic inefficiency, restricting trades in an important market.

Various writers have argued that asset price distortions of this kind are likely to dominate inter-temporal and other price distortions in generating resource misallocations, because of the magnitudes of the infrastructure involved. Hamilton & Whalley (1985) and Hamilton (1987) both argue the dominance of asset price distortions over other forms of economic inefficiency. Given this background, it is important that policymakers pay serious attention to opportunities for reforming policies which introduce such distortions.

The age pension assets test falls squarely into this category. Our examples suggest that even when twice as much housing services are consumed as are valued by the householder, the loss of the age pension will frequently lead to a decision against moving. Further, this affects well over half the 65+ population, a group which is steadily growing as the population ages. Quarantining would in effect complete the job started by the superannuation reforms; where they removed the price distortion associated with tax, this would remove the corresponding distortion associated with the assets test.

Table 15 illustrates the impact of quarantining the financial surplus from owner-occupied housing trade-down from the assets test. Put simply, for a household on full age pension before the decision to move, the impact is to turn an annual $13,653 loss into a $13,653 gain. Without the quarantine, the total gain from the trade-down was $50,000. However, if the

assets from the sale of a house are not counted towards the assets test as is suggested by the quarantining policy, the gain from the trade-down is $63,653.

Table 15 Example of impact of trade-down

| | Financial income | | | Housing income | | |
	Income	Age pension	Inv. income	Imputed income	Cap. gain	Total
Panel A						
Before	$3,000	$22,802	$0	$30,000	$20,000	$75,802
After	$3,000	$13,653	$0	$15,000	$20,000	$51,653
Panel B						
Trade down	$3,000	$0	$22,000	$15,000	$10,000	$50,000
Trade down (quarantine)	$3,000	$13,653	$22,000	$15,000	$10,000	$63,653

We believe that such a change in the financial calculus will motivate a significant number of moves than are currently seen.

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