The role of financial literacy when paying for residential aged care in Australia

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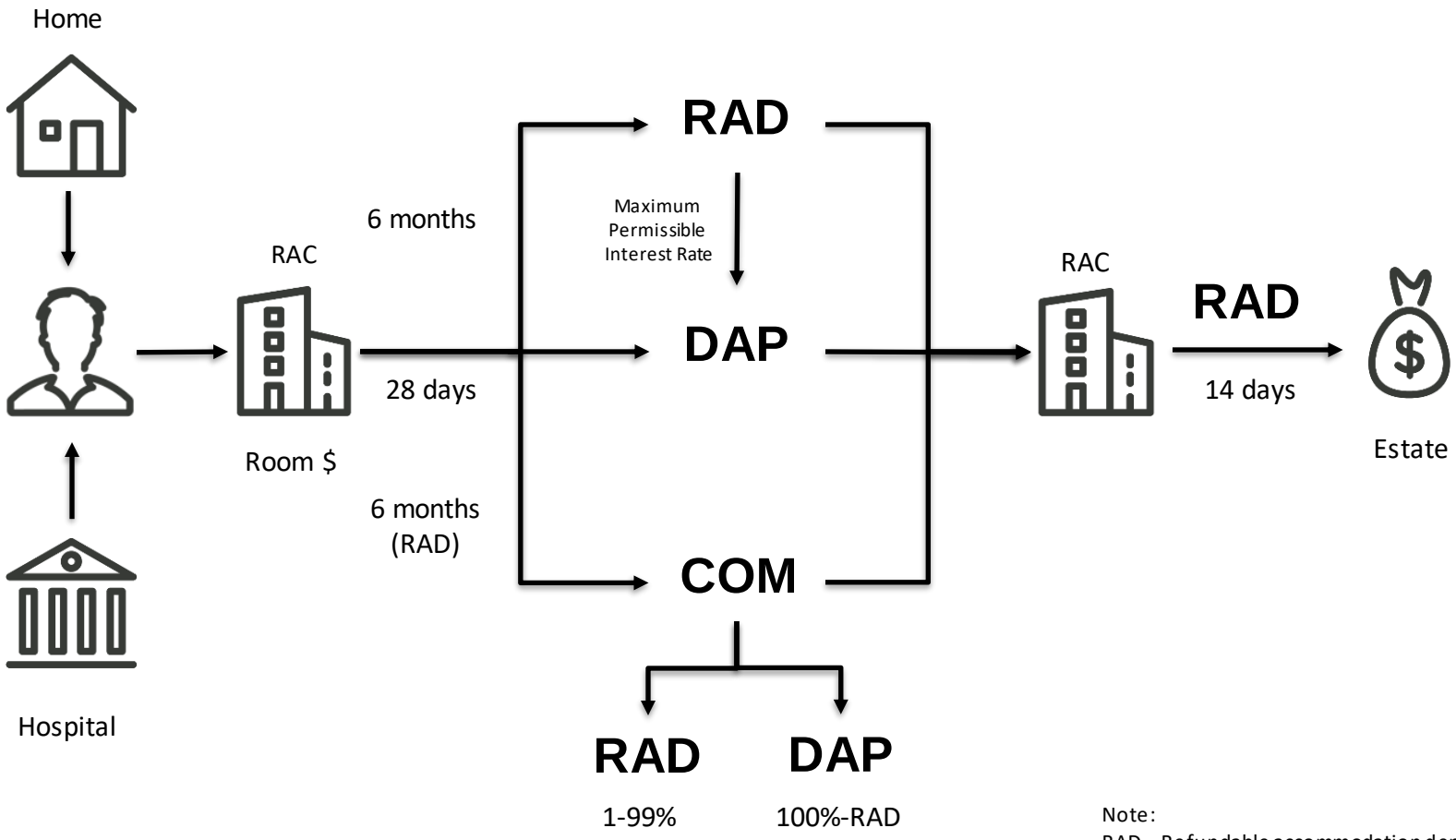
Background

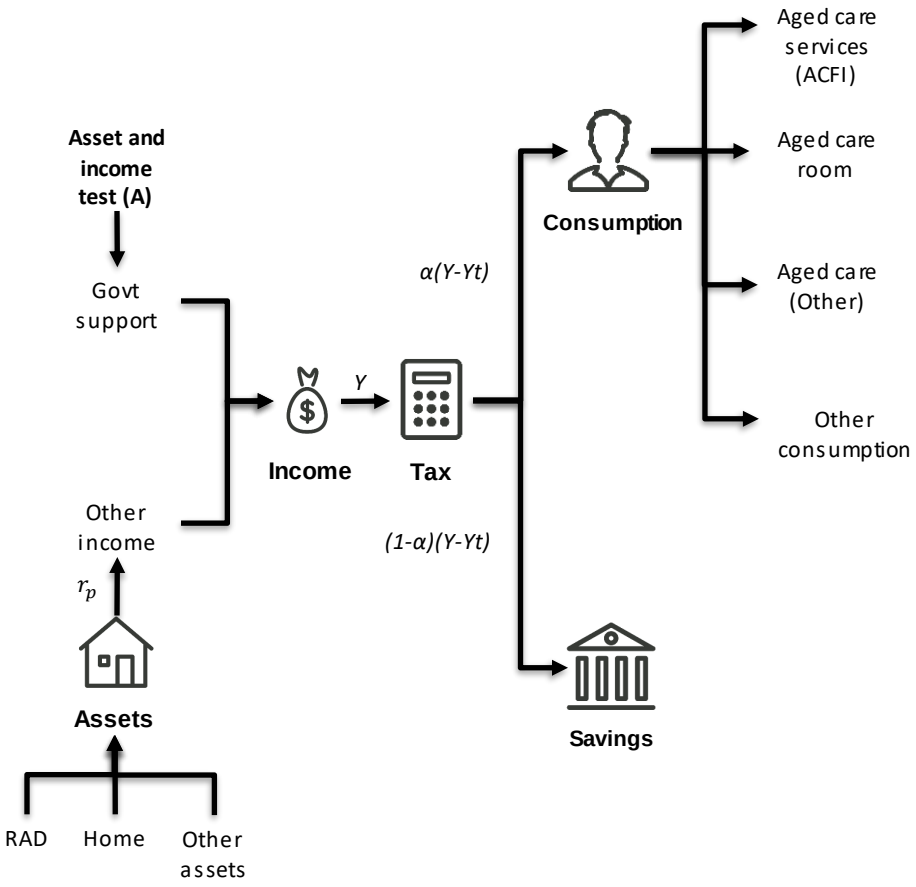
- Around 60,000 people enter residential aged care each year
- Accommodation can be purchased using a refundable accommodation deposit (RAD), daily accommodation payment (DAP) or combination of both
- Many sell their home to pay for accommodation, with assets left over
  - Average RAD value was $318,000 in end 2018-19
  - Average median house price was around $550,000 in end 2019
- Choosing an accommodation payment type is potentially the most complex financial decision a person will make in their lifetime.

Background

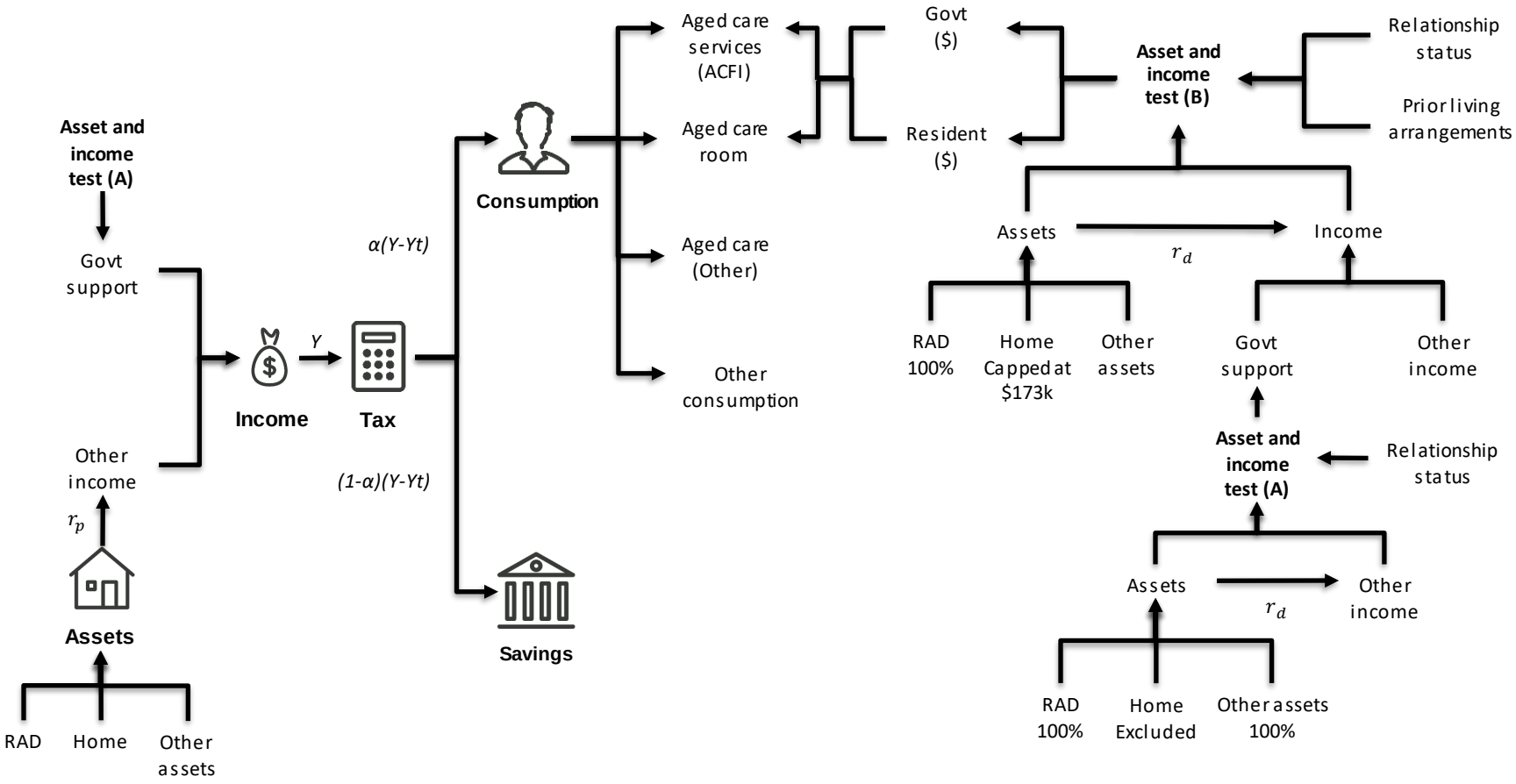


Note:
RAD = Refundable accommodation deposit
DAP = Daily accommodation payment
COM = Combination of RAD and DAP

Background


Asset and income test (A)
Govt support
Other income
r_p
Assets
RAD
Home
Other assets
Income
Y
Tax
α(Y-Yt)
(1-α)(Y-Yt)
Consumption
Savings
Aged care services (ACFI)
Aged care room
Aged care (Other)
Other consumption

Background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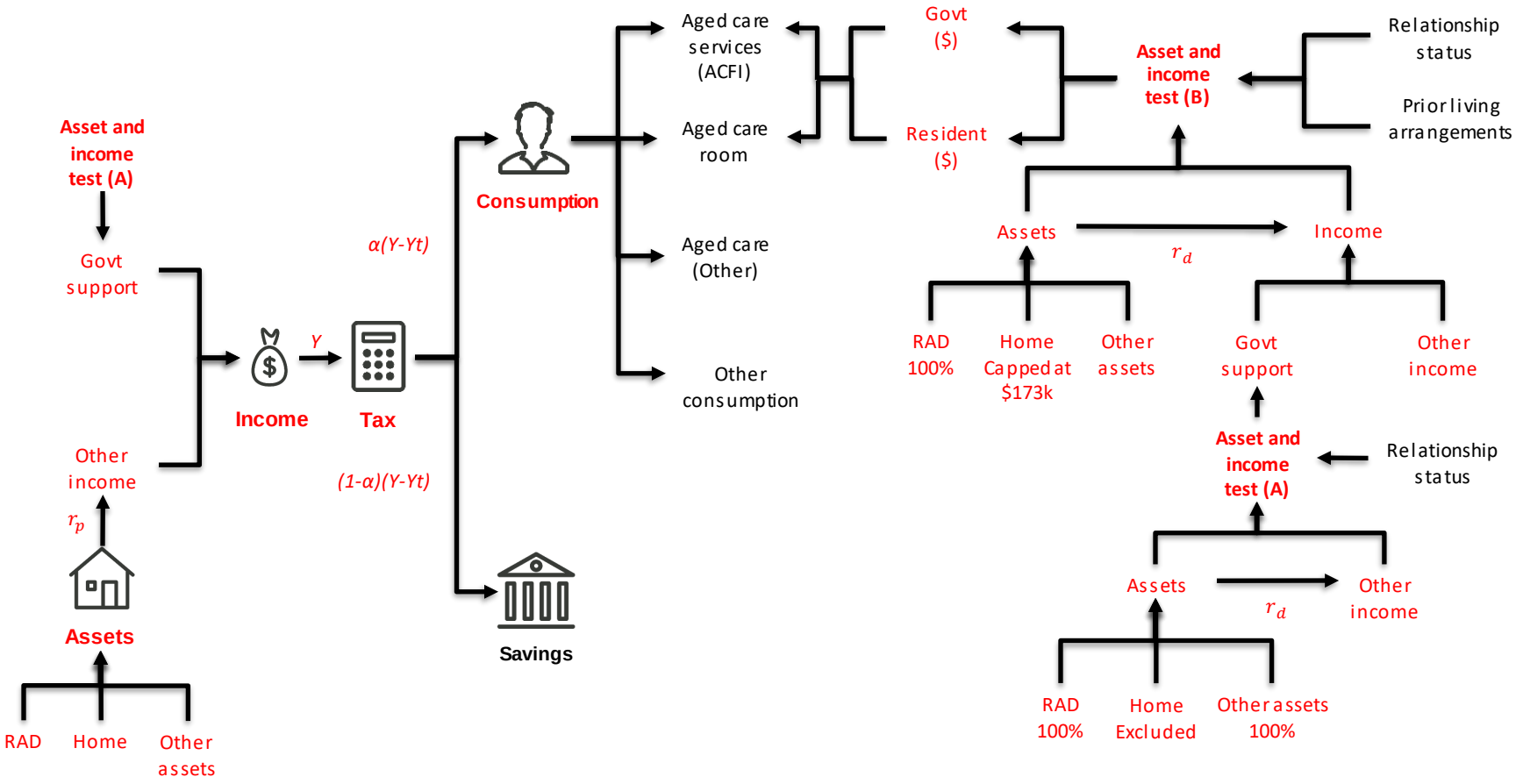
Other consumption
Govt ($)
Resident ($)
Asset and income test (B)
Relationship status
Prior living arrangements
Assets
r_d
Income
RAD 100%
Home Capped at $173k
Other assets
Govt support
Other income
Asset and income test (A)
Relationship status
Assets
r_d
Other income
RAD 100%
Home Excluded
Other assets 100%

Background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Background

- Our paper measures the role of financial literacy when making aged care accommodation payment decisions by surveying 589 informal carers
- We use three sets of regressions:
  1. The relationship between informal carer characteristics and financial literacy
  2. The relationship between financial literacy and using a financial advisor
  3. The relationship between financial literacy and perceived decision complexity, certainty and stress
- Financial literacy is represented by the 'Big Three' questions (interest, inflation, risk) self reported financial literacy and a two-part measure.

Related literature

- Australian studies have identified poor financial literacy among older Australians (National Seniors Productive Ageing Centre, 2013, Xue et al., 2019, Agnew et al., 2013)
- Studies have focused on the relationship between financial literacy and retirement planning (Agnew et al., 2013, Van Rooij et al., 2011, Van Rooij et al., 2012)
- Other studies have explored the relationship between financial literacy and using a financial advisor
  - Financial literacy complements financial advice (Collins, 2012, Calcagno and Monticone, 2015
  - Financial literacy has no impact or substitutes financial advice (Kim et al. 2019., Kramer., 2016)

Related literature

- People simplify complex decisions by ignoring complex information, by being myopic, or using simplifying decision heuristics (Gabaix et al., 2006, DellaVigna., 2009).
- Acute stress can interfere with rational decision-making by modulating risk-taking behaviours, or inducing biased heuristics (Porcelli and Delgado., 2009, Morgado et al., 2015, Kahneman and Frederick., 2002).
- Our study is the first to evaluate financial literacy in aged care and the impact of financial literacy on emotive decision characteristics
  - Decision confidence, perceived decision complexity, and decision stress
- Our results provide some indication on the likelihood of making a suboptimal accommodation payment decision

Data

Table 1: Survey questions

Question theme	*Description of questions*
Accommodation payment choice	Question on whether the resident paid a RAD, DAP or a combination of both.
Assistance with accommodation payment choice and provider involvement	Questions on whether the respondent consulted a financial adviser, other information sources used, whether providers expressed a payment type preference or suggested using a financial adviser.
Paying for accommodation	Questions on factors considered when making the accommodation payment decision.
Feelings toward the payment process	Questions on whether provider informed the respondent of time available to make a decision, whether respondent felt they had enough time, and questions on perceived decision complexity, confidence and stress.
Factors in choosing aged care home	Questions on the time period deciding on an aged care home, waiting period to enter an aged care home, and most important factors considered when choosing an aged care home.
Financial circumstances of the resident	Questions on how much the resident pays for accommodation, basic daily activities, care services, and extra services. Questions on income support received, along with personal and financial circumstance of the resident before moving into aged care.
Financial literacy of the respondent	Questions to test understanding of inflation, interest rate and risk diversification. Question asking the respondent to self rate their ability to understand financial information.
Sociodemographics of the respondent	Questions on age, gender, location of home, language spoken at home, education, and relationship to resident
Sociodemographics of the resident	Questions on age, gender, location of aged care home

Data

Table 3: Decision context

Variable	*N*	*Proportion*
Contextual factors around decision-making		
Informal carer felt there was enough time to make an accommodation payment decision	589	76%
Sources of help used to assist decision-making:		
Help from family and friends	589	49%
Help from a GP or healthcare professional	589	11%
Used online information	589	71%
Financial adviser use:		
Consulted a financial adviser	564	37%
Followed financial adviser's payment advice	198	87%
Financial adviser price was >$2000	206	13%
Provider behaviour		
Aged care home expressed payment type preference	589	48%
Aged care informed informal carer about 28-day decision-making period	589	54%
Aged care home suggested speaking to a financial adviser before making payment decision	589	40%

Data

Table 4: Financial literacy, self-rated financial ability, and financial risk appetite

Variable	*N*	*Mean/Proportion*
Financial literacy ('Big Three' questions)		
- Number of questions answered correctly	589	2.25
- Zero questions answered correctly	589	4%
- One question answered correctly	589	16%
- Two questions answered correctly	589	32%
- Three questions answered correctly	589	48%
- Interest rate question answered correctly	589	86%
- Inflation question answered correctly	589	71%
- Diversification question answered correctly	589	69%
Self-rated ability to work with financial information[a]		
- Poor	589	3%
- Fair	589	25%
- Good	589	39%
- Very good	589	25%
- Excellent	589	7%
Two-part financial literacy measure[b]		
Perceived High / Actual High	589	15%
Perceived High / Actual Low	589	17%
Perceived Low / Actual High	589	31%
Perceived Low / Actual Low'	589	37%
Appetite for financial risk		
Takes substantial/above average risks in investments with spare cash (0/1)	589	24%

Data

Table 5: Summary of primary outcome variables

Variable	*N*	*Proportion*
Decision confidence		
[i] How certain do you feel that your accommodation payment decision was the best for the resident financially? ('Very certain or certain' = 1, zero otherwise)	589	67%
[ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered care? ('Yes' = 1, zero otherwise)	589	90%
Perceived decision complexity		
[iii] Did you understand the difference between a lump sum payment and daily payments when making a decision on how to pay for accommodation? ('Yes' = 1, zero otherwise)	589	84%
[iv] "I found deciding on how to pay for accommodation complex" ('strongly agree' or 'agree' = 1, zero otherwise)	589	60%
Decision stress		
[v] "Deciding on how to pay for accommodation was stressful for me". ('strongly agree' or 'agree' = 1, zero otherwise)	589	54%

Method

- Financial literacy and respondent characteristics
  - Ordered logit model
- Financial literacy and financial adviser use
  - Binomial logit model
- Financial literacy and decision complexity, confidence and stress
  - Binomial logit model
- Sensitivity analyses undertaken using self-rated financial literacy and two-part financial literacy measures
- Huber-White robust estimator of variance to estimate heteroscedasticity consistent standard errors across all estimations.

Results (1)

Table 6: Relationship between financial literacy and respondent characteristics

Variable	*Coeff.*	*Robust s.e.*	*p-value*
Male	0.697***	0.183	0.000
English-speaking background	-0.857*	0.489	0.080
Age group (reference group: 65+ years):			
Less than 45 years	-0.704**	0.314	0.025
45-64 years	0.223	0.223	0.319
Highest educational attainment (reference group: tertiary degree):			
Year 12 or below	-0.776***	0.209	0.000
Certificate/diploma	-0.661***	0.191	0.001
Reports taking substantial or above-average investment risks	-0.078	0.207	0.707
Self-rated ability to work with financial information (reference group: very good/excellent):			
Poor/fair	-0.867***	0.218	0.000
Good	-0.027	0.187	0.884
Intercept 1	-4.663	0.605	
Intercept 2	-2.711	0.556	
Intercept 3	-1.066	0.549	
Chi-Square:		61.29	
Prob > Chi-Square:		0.000	
N		*589*	

Results (2)

Table 7: Factors influencing the choice to seek a financial adviser

Variable	*Coeff.*	*Robust s.e.*	*p-value*
Resident characteristics:			
Age	-0.007	0.013	0.577
Gender	0.002	0.224	0.992
Single	-0.014	0.275	0.959
Resident situation:			
Received government income support prior to residential aged care	0.120	0.218	0.581
Moved from other residential aged care home	0.808**	0.400	0.043
N		*555*	

*p<0.1**
*p<0.05***
*p<0.01****

Results (2)

Table 7: Factors influencing the choice to seek a financial adviser

Variable	*Coeff.*	*Robust s.e.*	*p-value*
Informal carer characteristics:			
Male	-0.206	0.226	0.362
English-speaking	0.063	0.502	0.900
Age group (reference group: 65+ years):			
- Less than 45 years	-0.364	0.456	0.424
- 45-64 years	-0.122	0.387	0.752
Financial literacy – all 'Big Three' questions correct (1 = all correct)	0.289	0.223	0.195
Highest educational attainment (reference group: tertiary degree):			
- Year 12 or below	0.187	0.290	0.520
- Certificate/diploma	0.042	0.252	0.869
Reports taking substantial or above-average investment risks	0.186	0.250	0.458
Felt had enough time to make payment decision	0.124	0.292	0.670
Agreed that the decision was stressful	0.570**	0.237	0.016
Agreed that the decision was complex	0.174	0.299	0.559
N		*555*	

*p<0.1**
*p<0.05***
*p<0.01****

Results (2)

Table 7: Factors influencing the choice to seek a financial adviser

Variable	*Coeff.*	*Robust s.e.*	*p-value*
Provider characteristics/influence:			
Suggested consulting a financial adviser	2.138***	0.214	0.000
Informed informal carer about 28-day decision-making period	0.694***	0.237	0.003
Expressed payment type preference	0.135	0.229	0.555
Aged care home in outer-regional or remote area	-0.464	0.367	0.207
Intercept	-2.152	1.329	0.105
N		*555*	

*p<0.1**
*p<0.05***
*p<0.01****

Results (3)

Table 8: Financial adviser and alternative financial literacy measures

Variable	*Coeff.*	*Robust s.e.*	*p-value*
Self-rated financial literacy (reference: self-rating of 'poor'/'fair'/'good')			
Perceived high financial literacy – self-rating of 'very good' or 'excellent'	-0.248	0.240	0.301
Two-part financial literacy (reference: perceived low/actual low)			
- Perceived high/Actual high	-0.179	0.341	0.601
- Perceived high/Actual low	0.439	0.330	0.183
- Perceived low/Actual high	0.725***	0.274	0.008

*p<0.1**
*p<0.05***
*p<0.01****

Results (4)

Table 9: Factors impacting decision confidence, complexity, and stress

	Decision confidence						*Perceived decision complexity*						*Decision stress*		
Outcome variable	***[i] Decision confidence: 'decision was best for the resident financially'***			***[ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered into care?***			***[iii] Understood difference between lump sum and daily payments***			***[iv] Decision was complex***			***[v] Decision was stressful***		
Covariate of interest:	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***
Financial literacy – all 'Big Three' questions correct (1 = all correct)	0.076	.232	0.742	0.357	.347	0.304	0.642**	0.312	0.039	-0.124	0.208	0.550	-0.303	0.257	0.239
Informal carer felt they had enough time to make the decision	1.429***	0.261	0.000	0.785**	0.371	0.034	1.207***	0.323	0.000	-0.976**	0.465	0.036	-1.793***	0.293	0.000
Provider behaviour:															
Informed informal carer about 28-day decision-making period	0.743***	0.237	0.002	0.538*	0.325	0.098	0.320	0.329	0.330	-0.516*	0.303	0.089	-0.397*	0.228	0.082
Expressed payment type preference	-0.558**	0.238	0.019	-0.274	0.350	0.434	-0.256	0.329	0.436	0.714**	0.281	0.011	-0.190	0.211	0.368
Intercept	-2.160	1.563	0.167	-2.332	2.075	0.261	-2.912	2.073	0.160	2.431	2.267	0.283	-2.835*	1.709	0.097
Chi-Square		111.45			76.57			81.35			86.67			97.96	
Prob > Chi-Square		0.000			0.000			0.000			0.000			0.000	
N		*555*			*555*			*555*			*555*			*555*	

Note: See Appendix B for full list of additional covariates.
*p<0.1**
*p<0.05***
*p<0.01****

Results (5)

Table 10: Sensitivity analyses using two alternative financial literacy measures

	Decision confidence						*Perceived decision complexity*						*Decision stress*		
Outcome variable	***[i] Decision confidence: 'decision was best for the resident financially'***			***[ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered into care?***			***[iii] Understood difference between lump sum and daily payments***			***[iv] Decision was complex***			***[v] Decision was stressful***		
Covariate of interest:	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***	***Coeff.***	***Robust s.e.***	***p-value***
Individual 'Big Three' questions (1 = correct)															
Interest rate	0.163	0.293	0.578	-0.020	0.426	0.963	0.223	0.413	0.589	-0.743	0.455	0.103	-0.205	0.298	0.493
Inflation	-0.073	0.249	0.769	0.361	0.343	0.292	0.581*	0.317	0.067	0.311	0.285	0.274	0.297	0.240	0.217
Risk diversification	-0.020	0.244	0.936	0.351	0.345	0.309	0.210	0.314	0.504	-0.202	0.272	0.456	0.060	.221	0.787
N	*555*			*555*			*555*			*555*			*555*		
Perceived high financial literacy – self-rating of 'very good' or 'excellent' (*reference: self-rating of 'poor'/'fair'/'good'*)	0.367	0.237	0.121	0.236	0.348	0.497	0.571*	0.326	0.079	0.148	0.211	0.482	-0.353	0.278	0.204
N	*555*			*555*			*555*			*555*			*555*		
Two-part financial literacy (reference: Perceived low/Actual low)															
Perceived high/Actual high	0.499	0.359	0.165	0.348	0.521	0.504	1.059**	0.511	0.038	-0.633*	0.370	0.088	0.008	0.289	0.979
Perceived high/Actual low	0.223	0.320	0.487	0.667	0.451	0.139	0.704*	0.420	0.093	-0.177	0.419	0.672	0.210	0.302	0.487
Perceived low/Actual high	-0.026	0.276	0.925	0.685	0.420	0.104	0.730**	0.372	0.049	-0.170	0.340	0.618	-0.095	0.263	0.718
N	*555*			*555*			*555*			*555*			*555*		

Note: See Appendix B for full list of additional covariates.
*p<0.1**
*p<0.05***
*p<0.01****

Results (6)

Table 11: The impact of high financial literacy interacted with having enough time and provider behaviour on outcomes

	Decision confidence		*Perceived decision complexity*		*Decision stress*
Outcome variable	***[i] Decision confidence: 'decision was best for the resident financially'***	***[ii] Would you make the same aged care home accommodation payment choice now compared to when the resident first entered into care?***	***[iii] Understood difference between lump sum and daily payments***	***[iv] Decision was complex***	***[v] Decision was stressful***
Without enough time to decide	-0.734	-0.518	0.542	0.725	-0.183
p-value	0.864	0.329	0.262	0.455	0.715
With enough time to decide	0.133	0.762*	0.703*	-0.410	-0.114
p-value	0.616	0.080	0.066	0.140	0.613
Not informed of 28 day period by provider	0.433	0.136	0.621	-0.565	0.238
p-value	0.174	0.677	0.130	0.203	0.433
Informed of 28 day period by provider	-0.311	-0.087	0.673	-0.155	-0.383
p-value	0.323	0.865	0.142	0.635	0.178
Provider did not express a payment preference	0.391	1.346***	0.932**	-0.452	-0.118
p-value	0.232	0.007	0.036	0.173	0.665
Provider expressed a payment preference	-0.184	-0.528	0.369	-0.050	0.132
p-value	0.554	0.285	0.387	0.906	0.671

Note: These results are for respondents with high financial literacy (defined as answering all 'Big Three' questions correctly). See Appendix B for full list of additional covariates.

*p<0.1**
*p<0.05***
*p<0.01****

Discussion

- Financial literacy is poor among many informal carers
- Higher financial literacy associated with being male, middle age (45 to 64 years) and education
- Financial adviser use was associated with 'Perceived low / Actual high' financial literacy
  - Underconfidence in financial ability increases chance of using financial adviser
  - No relationship with 'Big Three' questions or self-rated financial literacy
  - Providers influenced decision to use a financial adviser
- Financial literacy had some relationship with reduced decision complexity but little relationship with decision confidence or stress

Discussion

- Financial literacy education is unlikely to substantially reduce suboptimal accommodation payment decisions
  - Complexity means decision heuristics and biases are likely to remain
- Significant heterogeneity in financial and personal circumstance means financial advice needed
- No guarantee increasing access to financial advice would work
  - Lack of trust, anxiety, unable to understand advice, overconfidence, lack of interest
- Australian Government should consider simplifying the accommodation payment decision
  - Removing means testing, exempting income from tax, removing RADs.

Thank you

END

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