



Centre for Law, Markets and Regulation, UNSW Law

# Whose best interests? The effects of member heterogeneity on strategy optimality in Australian superannuation funds.

By M. Scott Donald PhD CFA

**Super fund trustees have a duty to exercise their powers in the best interests of members as a whole ...**

**... but what if they are all different?**



# The more diverse (heterogenous) the members are, the bigger the challenge

The Stronger Super regime formalised a choice architecture with choices at several points:

- Fund Choice (incl SMSFs)
- Member Investment Choice

MySuper products cater to those who do not choose an investment option (and some who do)

Trustees can (and arguably should) respond to heterogeneity by:

1. Offering member investment choice
2. Implementing a life-cycle approach in their MySuper product\*

\* Assuming you think this is a good thing, and I am not convinced

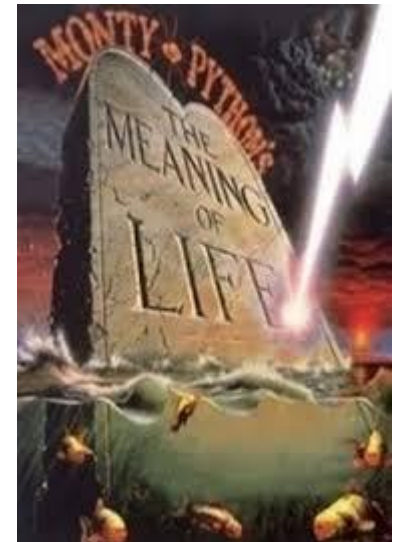


# What drives individual investment strategy optimality over the life-cycle?

Salient inputs (Merton, Bodie et al):

- Time horizon (age, health)
- Wealth (relative to needs)
- Income
- Marital status (because of joint holdings)
- Gender (because of different contribution trajectory and longevity)

Note this is distinct from subjective and behavioural factors (which is where choice architecture comes in)



# What do trustees know about individual members?

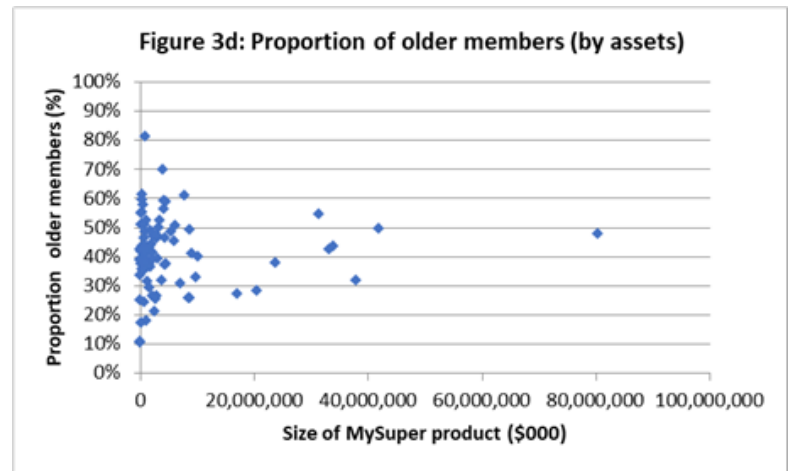
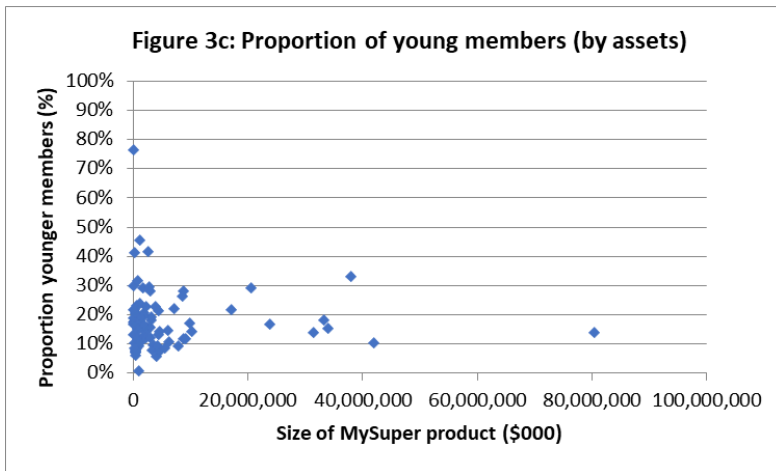
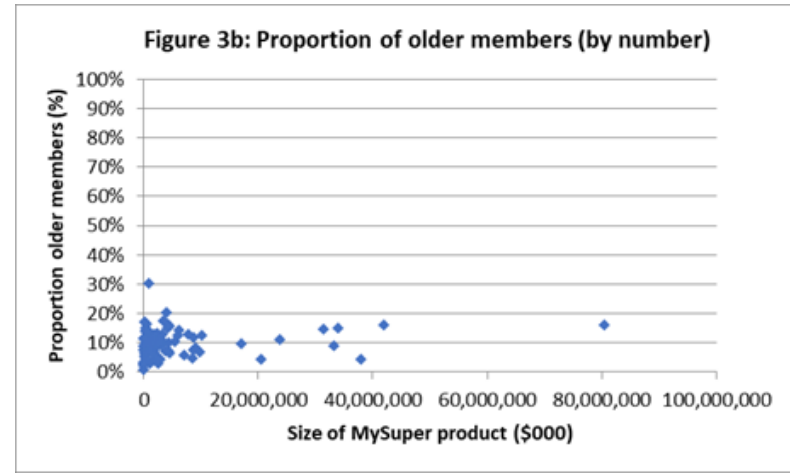
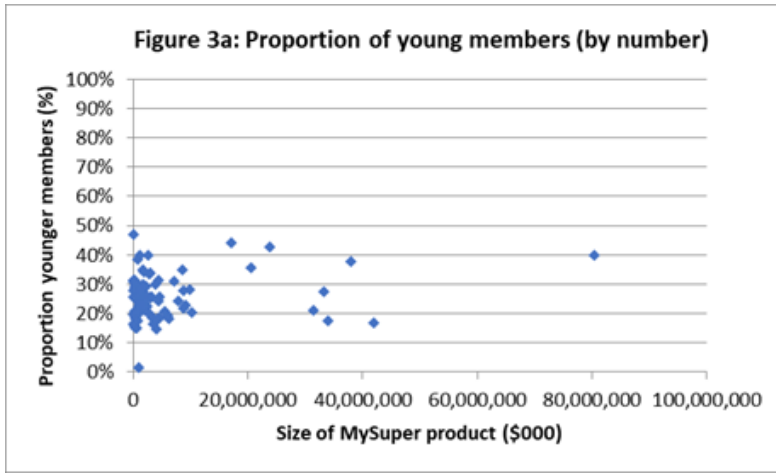
The key dimensions of diversity that trustees can observe are:

- Age (as a proxy for investment time horizon)
- Gender
- Account size (as a very poor proxy for wealth)

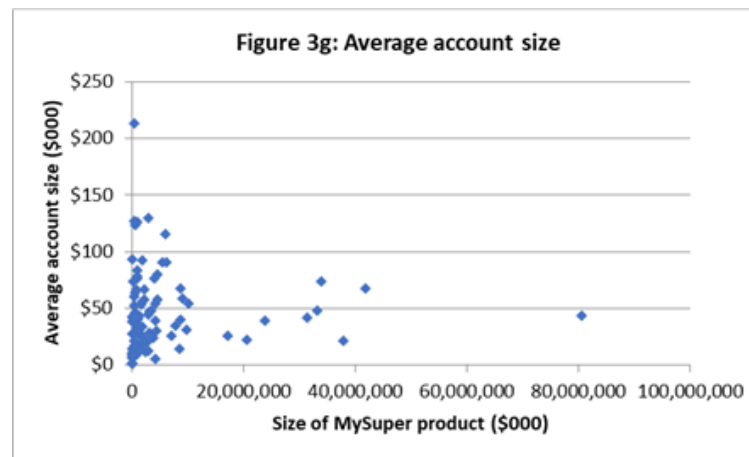
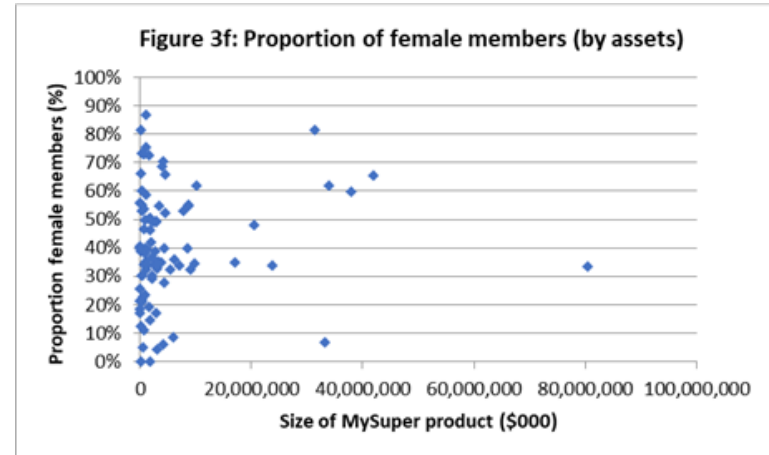
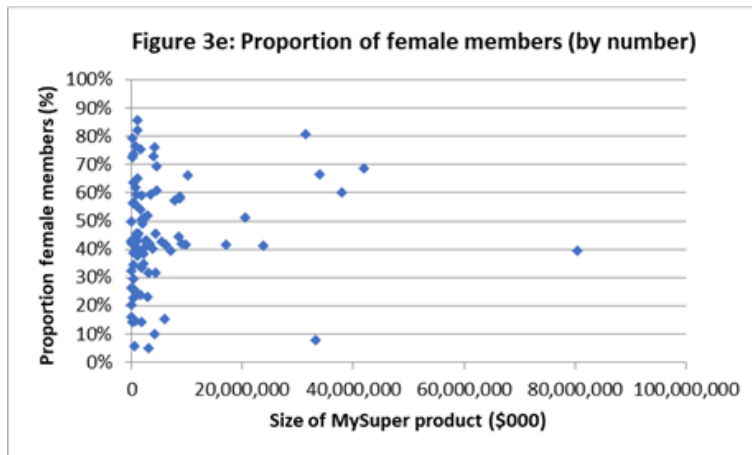
The key dimensions of diversity that trustees cannot confidently observe are:

- Marital status
- Health
- Current income
- Other stores of wealth

# There is considerable age diversity



# There is also diversity by gender and account size



# So yes, there is salient heterogeneity at fund level

Table 3 - Heterogeneity across MySuper products									
	Young (<35)		Older (>54)		% female		Average Account (\$000)	Target Return (%pa)	Alloc.to Equities (%)
	(by #)	(by \$)	(by #)	(by \$)	(by #)	(by \$)			
Max	47%	76%	30%	81%	86%	87%	213	5.6	77.5
1st Decile	36%	29%	16%	56%	73%	69%	90	5.0	60.2
1st Quartile	30%	21%	13%	49%	59%	55%	63	4.2	58.0
Median	24%	15%	10%	41%	43%	39%	40	3.7	54.0
3rd Quartile	20%	10%	7%	35%	35%	29%	20	3.0	50.0
9th Decile	17%	7%	4%	25%	16%	12%	10	2.6	45.0
Min	2%	0%	1%	10%	5%	0%	0	2.0	30.0
MySuper population*	29%	18%	8%	45%	48%	44%	33		
Super population	35%	9%	21%	50%	46%	41%	53		
Working population	39%		19%		47%				

Based on APRA data as at 30 June 2017, ABS data for working population

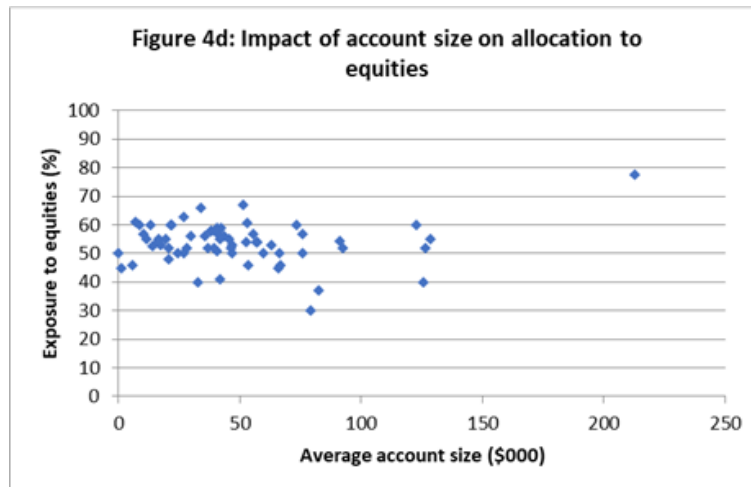
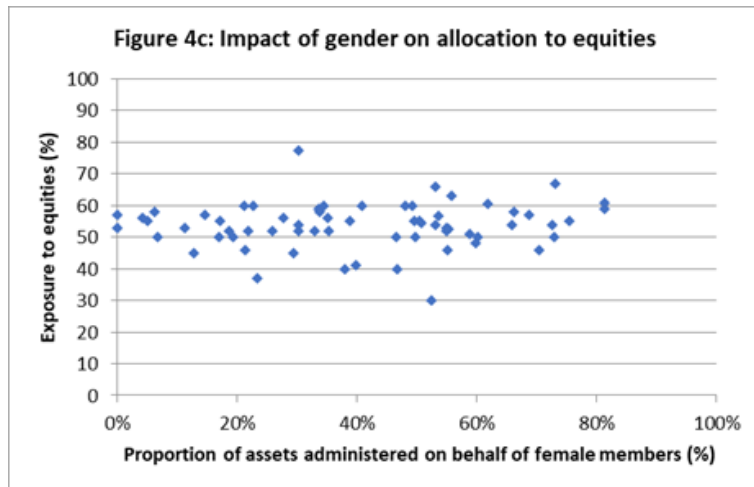
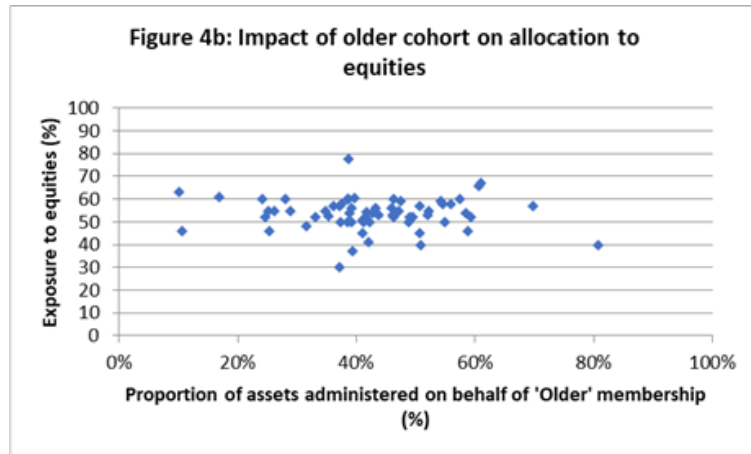
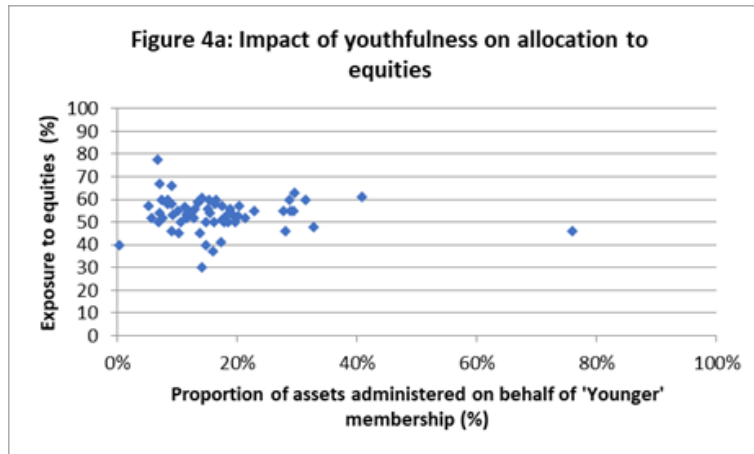


# So do trustees manage their MySuper products differently, depending on their membership?

- If you ask them, they say yes (See Butt et al 2017)
- If you look at their stated objectives, you have to conclude “no”.
- If you look at their actual asset allocation, you cannot confidently say “yes”.
- If you look for a decision to use a life-cycle approach, you have to conclude “no”.



# The pictures don't tell the story we expect ...



The numbers do not reveal a compelling relationship between MySuper product demographics and either the trustees' declared target return, nor their actual investment strategy



Table 4 - Sensitivity of trustee decisions to demographics, fund size and sector

	Target Return (% pa)			% in Equities		
	Co-efficient	SE	p	Co-efficient	SE	p
<b>By number of members</b>						
Intercept	4.572	0.719	0.000**	0.396	0.062	0.000**
Age (young)	-1.624	1.740	0.354	0.018	0.15	0.905
Gender	0.139	0.492	0.779	0.044	0.043	0.309
Account Size	-0.003	0.004	0.364	0.001	0.000	0.050*
Fund size	1.94E-08	0.000	0.002**	-7.24E-11	0.000	0.89
Sector	-0.294	0.166	0.810	0.044	0.14	0.003**
Standard error		0.794			0.069	
Adjusted R-square		0.090			0.103	
<b>By assets</b>						
Intercept	3.976	0.523	0.000**	0.411	0.045	0.000**
Age (old)	1.382	2.214	0.535	-0.13	0.190	0.497
Gender	0.156	0.496	0.754	0.048	0.043	0.265
Account Size	-0.002	0.003	0.519	0.001	0.000	0.021*
Fund size	1.67E-08	0.000	0.005**	1.64E-11	0.000	0.974
Sector	-0.287	0.167	0.092	0.043	0.140	0.004**
Standard error		0.798			0.068	
Adjusted R-square		0.083			0.110	
<b>By assets</b>						
Intercept	4.266	0.573	0.000**	0.397	0.049	0.000**
Age (young)	-0.524	1.072	0.627	0.014	0.092	0.882
Gender	0.142	0.473	0.765	0.046	0.041	0.261
Account Size	-0.002	0.004	0.499	0.001	0.000	0.041*
Fund size	1.74E-08	0.000	0.003**	-6.31E-11	0.000	0.897
Sector	-0.308	0.167	0.071	0.045	0.014	0.003**
Standard error		0.799			0.069	
Adjusted R-square		0.790			0.106	
<b>By assets</b>						
Intercept	3.906	0.592	0.000**	0.414	0.510	0.000**
Age (old)	0.512	0.863	0.555	-0.030	0.740	0.689
Gender	0.128	0.474	0.788	0.048	0.410	0.246
Account Size	-0.002	0.003	0.522	0.001	0.000	0.024*
Fund size	1.68E-08	0.000	0.005**	-3.30E-11	0.000	0.946
Sector	-0.283	0.169	0.099	0.044	0.014	0.004**
Standard error		0.798			0.068	
Adjusted R-square		0.081			0.109	

\* significant at 5% confidence level

\*\* significant at 1% confidence level

Note: not for quotation without prior written authority from author

# The story is no clearer in respect of trustees adopting life-cycle approaches ...

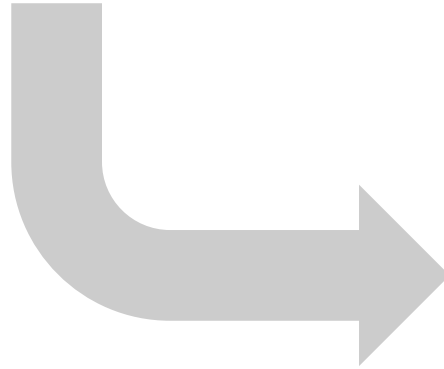


Table 5 - Propensity of trustees to offer Life-cycle products			
	Co-efficient	SE	p
<u>By number of members</u>			
Intercept	2.312	2.837	0.415
Age (young + old)	-12.406	7.692	0.107
Gender	0.337	1.515	0.824
Account Size	-0.010	0.110	0.361
Fund size	0.00E+00	0.000	0.035*
Sector	0.296	0.433	0.494
<u>By assets</u>			
Intercept	1.084	3.235	0.738
Age (young + old)	-3.978	4.490	0.376
Gender	0.256	1.445	0.859
Account Size	-0.006	0.011	0.564
Fund size	0.00E+00	0.000	0.117
Sector	-0.082	0.425	0.847

\* significant at 5% confidence level  
\*\* significant at 1% confidence level

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# Conclusion

It does not appear that trustees responsible for MySuper products are calibrating their investment strategies to match their members' demographics or responding to diversity by offering Life-cycle

But before we jump to conclusions ...

➤ This could be because they feel the need to be 'true to label'

Or

➤ There may be a hidden variable (which is ?)

Or

➤ The statistical tools are inadequate  
(but I don't think that is the reason)

