

Financial Inclusion and Life Insurance Demand; Evidence from Italian households

Elisa Luciano¹ Mariacristina Rossi¹ Dario Sansone²

¹University of Turin and Collegio Carlo Alberto

²Georgetown University

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Overview

- We study Life Insurance (LI) as a tool for savings. Can be converted into an annuity
- We exclude pure term insurance
- We use the Bank of Italy dataset SHIW from 2004 to 2012
- Italian market important
- We show that financial inclusion acts as one of the main driver of LI demand

Summary

- The SHIW survey allows us to investigate traditional drivers of LI demand - income, wealth, geographical and demographic variables - as well as newer ones, namely financial market inclusion.
- We use as proxies for the latter stock holding, home ownership and financial literacy.
- In a second stage, we recognize the potential endogeneity of financial literacy and try to address it by using parental capabilities, as measured by parents managerial skills, as IV.
- Then, we exploit the panel dimension of the dataset controlling for time and individual fixed effects.
- We study of LI or private pension plan subscription as a source of annuitization.

Representativeness of the case study

- Life and term insurance demand has been outpacing worldwide income growth
- Italian market important: as of 2012, 70% of European premia (euros 643bn) and 3/4 of benefits (647bn) paid in UK, D, F and Italy. Worldwide life, term and casualty premia are 3 times the EU ones
- Descriptive statistics of life and term insurance are similar across "old" EU: euros 1083 per capita spent each year on them, 760 in casualty, including health. Respectively 4.5 and 3.1% of GDP.
- The expected payments from insurance companies to Italian households amount to 11.7% of their total wealth. Bonds represents 16%, shares 23% and mutual funds 8%
- LI market in Italy important also for over/under annuitization aspect

A relevant aspect: under-annuitization

- In Italy workers receive their pension as a mandatory annuity; risk of over-annuitisation?
- People who have discontinuous career or are not in the labour market are at risk of under-annuitisation, even in Italy
- We focus on this class

Background literature

- The main determinants of LI have been traditionally detected in:
 - household income or wealth,
 - tax treatment,
 - education,
 - life expectancy,
 - young dependents' ratio, old dependents' ratio
 - risk aversion,
 - age
 - and, to a smaller extent, gender.

Some results from the literature

- In a number of papers, life and term insurance are pooled (this impacts on age and expected lifetime effect)
- Cross-country comparisons need measurement of institutional and regulatory differences (Li et al., 2007)
- In Italy, tax code had little impact (Jappelli and Pistaferri, 2002). We do not explicitly control for tax break. We use net income among regressors
- Difficult to disentangle education, risk aversion, gender and wealth effects (see Liebenberg et al., 2012)

Data

- The SHIW is a bi-annual survey, with approx. 7500 observations per year.
- Individuals aged between 25 and 65, that are either a household head or the spouse, where the head is the one who takes financial decisions.
- We look at the propensity to buy LI (participation) as well as to the amount of premia (Tobit)

Table: Insured Individuals

	Financial literacy		Total (%)
Sex	low	high	total
Male	4.4	9.5	8.3
Female	3.2	5.9	5.2
Total	3.8	7.8	6.8

Note: Financial Literacy is based on three questions assessing the respondents knowledge of the concepts of variable versus fixed interest-rate mortgage, inflation rate and portfolio risk and diversification.

Endogeneity of Financial Literacy

- Instrumented via father or mother with managerial skills - parents with managerial job at the age of the respondent
 - To build up the instrument, we consider managers, freelancers and entrepreneurs as managerial occupations.
- The rationale is that having a parent with higher education or managerial job increases the likelihood of having a higher (need for) financial knowledge (see Calcagno and Urzi', 2014)

Regression Results

LI participation	OLS - FinLit	IV - FinLit	OLS- Stock	FE - All	FE-Male	FE- Female
female	-0.0180**	-0.0214*	-0.0179**	-	-	-
age hh head	0.0097***	0.0122**	0.0095***			
age hh head ²	-0.1000***	-0.1309**	-0.0982***			
living together				0.2006**	0.2686*	0.1485*
married		0.1815**		0.1647**		0.1638*
high school	0.0194***		0.0192***			
tertiary education	0.0429***		0.0418***			
inactive				0.0820***	0.0967***	-0.0274*
Self-Employed	0.0541***		0.0551***			
(log) individual income	0.0291***		0.0277***	0.0246*	0.0342*	
risk aversion				0.0196**		0.0273**
home-owner	0.0256***		0.0262***			
stock holding			- 0.0384**	0.0523**	0.0868***	
financial literacy	0.0107***	0.4518***	-	-	-	-

note: - = not included; " " = not significant; also age spouse, working years, geographical variables, number and age of household members and offsprings outside hh, income/wealth and participation to hh income are not significant. Female inactive significant and negative in FE; underannuitization

Discussion

- When stock holdings are not included in the explanatory variables, determinants are the same as in the stock market participation of van Rooij et al., with the quite obvious exception of age and self-employment
- When they are included (FE), risk aversion matters on top of stock market participation

Premia	Tobit -FinLit	Tobit IV -FinLit	Tobit-Stocks
female	-513.4**	-598.1*	-522.4**
(log) income	1024.1**		997.4***
home own	892.6***		900.9***
stock holding	-	-	744.5*
financial Literacy	419.4***	9519.4***	-

note: significant also age, age squared, high school and tertiary education, self-employed, North Italy; married and living together, inactive and risk aversion explain participation, not premia

Table: Participation (LI + pension funds)

Participation	FE - All	FE - Male	FE - Female	FE - All 2012-10
age hh head	0.0285**		0.0342**	
age hh head $\hat{2}$	-0.2522**		-0.3359**	
living together				
married				
inactive but not retired				0.1409***
self-employed	0.0576*	0.0880**		-
(log) income	0.0374***	0.0545***		
risk averse				
severance to pension	0.3696***	0.3464***	0.3974***	0.3792***
home own	-0.0604***	-0.0633**	-0.0628**	-0.1332**
stock holding	0.0616***	0.0675***	0.0548**	0.0862**

note: In 2010-12, living together and married, risk aversion, home own. are significant in those specifications when they were not for LI alone

Conclusions

- Financial market inclusion measured by stock holding participation and financial knowledge acts as principal driver of LI participation and premia
- Consistent with previous results on stock-market participation
- Pension funds and LI have nuanced explanatory variables, with inclusion explaining both
- Under annuitization seems to hold for women
- Policy consequences: foster inclusion.