

Individual Private Retirement Insurances:
the effects of socio-demographics characteristics on poverty

Najat El Mekkaoui,
Gordon Clark,
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Najat El Mekkaoui, Gordon Clark, Bérangère Legendre

Paris Dauphine University, Oxford University, Orléans University & Paris Dauphine University

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- Challenge in developed countries : How to manage pension and health systems in context of demographic ageing ?
- Demographic challenges :
 - Lower birth rates + increasing longevity = ageing population.
 - 1900s : 10 people of working age to support every pensioner.
 - Today : only 4
 - 2050 : one pensioner supported by only 2 people of working age.

- Challenge in developed countries : How to manage pension and health systems in context of demographic ageing ?
- Demographic challenges :
 - Lower birth rates + increasing longevity = ageing population.
 - 1900s : 10 people of working age to support every pensioner.
 - Today : only 4
 - 2050 : one pensioner supported by only 2 people of working age.
- Pension reforms : lower pension benefits, higher contribution rates, increasing retirement ages.
- **The trend to reduce welfare state, and to have more sustainable pension systems, raises the question of the poverty in old age.**

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- Poverty risk for the most vulnerable people (women, blue-collars, seniors, etc).
- Cyprus, Ireland, Spain, Portugal, Greece and the United Kingdom : countries with the highest poverty rate of the retirees at the end of the 20th century.

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- Cyprus, Ireland, Spain, Portugal, Greece and the United Kingdom : countries with the highest poverty rate of the retirees at the end of the 20th century.
- **Is there private retirement contracts that could reduce the poverty risk among elderly people ?**
- **Could life insurances (pure life insurance, or annuities), housing, etc., provide a useful additional income source to avoid the poverty risk during the retirement ?**

- Poverty risk for the most vulnerable people (women, blue-collars, seniors, etc).
- Cyprus, Ireland, Spain, Portugal, Greece and the United Kingdom : countries with the highest poverty rate of the retirees at the end of the 20th century.
- **Is there private retirement contracts that could reduce the poverty risk among elderly people ?**
- **Could life insurances (pure life insurance, or annuities), housing, etc., provide a useful additional income source to avoid the poverty risk during the retirement ?**
- Life insurances (annuities) well developed in France.
- At-risk-of-poverty rate of elderly people : 14% in France in 2005 (Eurostat).
- Econometric model to analyze on the effect of insurance annuities on poverty among older households in France.

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- Auerbach and Kotlikoff (1987) : the elderly households in which the husband's income represents a significant part of total household resources are inadequately insured.

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- Lack of savings to maintain their consumption level during the retirement (Bernheim *et al.*, 2001 ; Paquette, 1987 ; Bernheim, 1993).
- The demographic structure and the age impact the holding of life insurance or private voluntary pension contracts (Bernard *et al.*, 2002 ; Arrondel *et al.*, 2003).

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- Lack of savings to maintain their consumption level during the retirement (Bernheim *et al.*, 2001 ; Paquette, 1987 ; Bernheim, 1993).
- The demographic structure and the age impact the holding of life insurance or private voluntary pension contracts (Bernard *et al.*, 2002 ; Arrondel *et al.*, 2003).
- In 2004, 59% of the French households are holding a life insurance contract (Darmon and Pagenelle (2005))

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- Many factors impact the risk of monetary poverty among retirees : the composition of the household, the sex, the activity rate, and the income sources (Cohen Solal and Lelièvre, 2002 ; Zaidi, 2006)

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- Franco, Marino and Tommasino (2008) : poverty risk for futur retired cohorts (increasing job flexibility for current young cohorts, etc.)

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- Franco, Marino and Tommasino (2008) : poverty risk for futur retired cohorts (increasing job flexibility for current young cohorts, etc.)
- Role of particular social programs to reduce the poverty rate of specific vulnerable populations (Rupp *et al.*, 2003 ; Davies and Favreault, 2003)

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- Franco, Marino and Tommasino (2008) : poverty risk for futur retired cohorts (increasing job flexibility for current young cohorts, etc.)
- Role of particular social programs to reduce the poverty rate of specific vulnerable populations (Rupp *et al.*, 2003 ; Davies and Favreault, 2003)
- Common methodology to estimate the probability of being poor and of financial products holding : Probit model. Completed by a Bi-Probit model.

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- Data : French Patrimoine Survey (2004)
- 25% of the respondents are retired,
- 22% of them have a wife -or a husband- also pensioner,
- 39 % of the Retired are aged from 60 to 69, 43% from 70 to 79 and 18% are aged of 80+.
- Selected sub sample : retired People aged of 60 +.

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- 25% of the respondents are retired,
- 22% of them have a wife -or a husband- also pensioner,
- 39 % of the Retired are aged from 60 to 69, 43% from 70 to 79 and 18% are aged of 80+.
- Selected sub sample : retired People aged of 60 +.
- Calculation of the poverty rate : poverty line = 50% of the median income.
- Adjusted income to take into account economies of scale -in housing and in consumption of good and services- in the households.
- 10,9% of the 60-69 years old people are poor, 11,3% of the 70-79, and 17,7% of the 80+.

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Table : Poverty rates

Retirees aged of 60+	Poverty rates
Farmer	28,7%
Shopkeeper	14,6%
Executives	3,8%
White Collars	6,4%
Employee	14,4%
Blue Collars	14%
Homeowner	9%
Not Homeowner	19,9%
Household holding an annuities	7,8%
Household without annuities	14,7%
Living in Paris	8,4%
Living in the south of France	13,8%
Living in the west of France	19,3%
Living in the east of France	4,9%
Living in the north of France	11.4%
Personal loan	5,4%
No Personal loan	13,2%

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- Pure life insurance, 52%.
- **Pure endowment insurance, annuities and endowment insurance (i.e. mix of term life insurance and term annuity), 17%.**
- Popular savings schemes, 10%.

- Pure life insurance, 52%.
- **Pure endowment insurance, annuities and endowment insurance (i.e. mix of term life insurance and term annuity), 17%.**
- **Popular savings schemes, 10%.**
- We consider the saving behaviour of the elderly :
 - 36% of the sample aged of 60-69 hold an annuity contract,
 - 37% of the 70-79,
 - 31% of the 80+.

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Table : Annuities holding rates

Retirees aged of 60+	Annuities holding rates
Farmer	39%
Shopkeeper	40%
Executives	53%
White Collars	38%
Employee	30%
Blue Collars	24%
Homeowner	40%
Not Homeowner	27%
Living in Paris	44%
Living in the south of France	26%
Living in the west of France	35%
Living in the east of France	37%
Living in the north of France	37%
Personal loan	36%
No Personal loan	36%

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- Probit model as first exercise : probability of being poor,
- Bi-Probit model as second exercise : simultaneous probabilities of being poor and of holding an annuities contract, estimate of the correlation between risk of poverty and annuities holding among pensioners.

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- Dependant variables : socio-demographic characteristics :
 - Gender
 - Marital Status
 - Children or not
 - Age group (10 years)
 - Life expectancy
 - Nationality (French vs Other)
 - Professional category
 - Living area
 - Dummy variable of loan
 - Dummy variable of homeownership

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Table : Probability of being poor : statistically significant results

Positive Coefficient	Negative Coefficient
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Women	Executives
Farmer	White collars
Shopkeeper	East
Age 80+	Life insurance
Other nationality	Homeowner
South	Personal Loan
West	Married
	Divorced
	Widowed

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- The households having life insurance are above the poverty line.

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- The households having life insurance are above the poverty line.
- The probability to be poor is large and significant at 80 years old.

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- Wealth effect : executives and white collar workers.

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- The probability to be poor is large and significant at 80 years old.
- Wealth effect : executives and white collar workers.
- To be married or widowed avoid being poor contrary to single.

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Table : Bi-Probit : statistically significant results

Probability of being poor		Probability of annuities holding	
Positive Coefficient	Negative Coefficient	Positive Coefficient	Negative Coefficient
Women	Executives	Farmer	Age 80+
Farmer	White collars	Shopkeeper	Other nationality
Shopkeeper	East	Executives	Blue Collar
Age 80+	Annuities holding	White collars	Blue Collar
Other nationality	Homeowner	Homeowner	
South	Personal Loan		
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- Blue collars tend to hold less life insurance than employees, whereas, the other categories hold more contracts than them.

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- Blue collars tend to hold less life insurance than employees, whereas, the other categories hold more contracts than them.
- The probability to be poor is large and significant for : women, foreigners, aged 80+, people leaving in South and West area.

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- Blue collars tend to hold less life insurance than employees, whereas, the other categories hold more contracts than them.
- The probability to be poor is large and significant for : women, foreigners, aged 80+, people leaving in South and West area.
- To hold an annuities contract and to be homeowner avoid the risk of poverty.

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- Our results indicate that the household having life insurance are above the poverty line.
- Our models show the negative and significant correlation between poverty and life insurance holding among retirees in France,

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- Our models show the negative and significant correlation between poverty and life insurance holding among retirees in France,
- Private insurance saving could complement efficiently the low level of State pension for women, blue-workers, foreigners and self-employed,
- Fiscal measures could encourage private saving for retirement (ex : Germany with the Riester Rente).

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