Multiple default solutions? Reflections from a case study on the over 55

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Agenda

Multiple default solutions?

To what extent do the over 55 differ in terms of resources and prospects?

Questioning current paradigms about diversification over time

Work in progress creating a framework for optimizing utility over time

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Multiple default solutions?

The investment decision for retirement is not an easy one

- Research shows that investors tend to be affected by “framing” and to rely on short-cuts such as peer group attitudes, friends’ advice, etc…: “default solutions” may help avoid major drawbacks from irrational behavior
- A majority of individuals needs to be offered simple solutions given:
  - the excess of information and information biases they normally are exposed to,
  - the lack of financial education
  - the key need for appropriate diversification

But individuals are not all the same

- so hardly one default can be satisfactory
- on what bases could multiple solutions be designed?

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Defining default solutions in the case of pension plans

Default solutions can be used either for addressing:

- The decision about **participating or not** (tacit, automatic enrollment)

Or for

- **Portfolio choice**, with respect to asset allocation (e.g. % of risky assets as function of the age of retirement) during:
  - the accumulation phase
  - and/or the retirement/decumulation phase

Here, we deal with this second aspect. We believe that current one-way answers such as

- minimum risk (as for Italian second pillar) or high international equity exposure (as in Sweden) during accumulation
- or simple rules for reducing equity weight during retirement

are unsatisfactory.

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The basis for our case-study

- We took as a basis the 2003 UniCredit survey: a sample of 1834 individuals representative of the UniCredit customers' population, with an overweight on the affluent
- We extracted 65 individuals aged 55 or more with different situations in terms of wealth, profession and family structure
- The extracted group has been weighted in order to be as much as possible representative of the population. Naturally, 65 cases do not represent a number sufficient to attach a high degree of confidence to the results, that we consider therefore essentially as indicative
- We analysed the data in order to evaluate the nature and the adequacy of the portfolios of the over 55 of age in a dynamic perspective
- These people have only been marginally affected by the pension reform. They will, however, have to deal with longevity, standard of living and long term care issues

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Individuals currently aged 55: *how do they differ in terms of endowments?*

The over 55 differ in terms of endowments:

- The degree of pension coverage is far from homogeneous
- Most of them have real wealth
- Many but not all have financial wealth

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Individuals currently aged 55: *how do they differ in terms of socio-demographic situation?*

The socio demographic situation has an impact.

For example:

- Married retirees with double income will be better-off of than single income couples
- Singles may have very different situations according to family history

Different groups will require different standard of living benchmarks

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Pulling the threads together: Income Gap, Financial Wealth Gap, Financial and Real Wealth Gap

Specifically, we proceeded to evaluate the following gaps:

- **Income gap:** difference between first pillar pension benefit and income threshold allowing to maintain an adequate standard of living according to ISAE Standards

- **Financial Wealth Gap:** difference between financial assets and the present value of liabilities including premia for longevity risk and long term care insurances

- **Financial and Real Wealth Gap:** the above mentioned gap calculated on total assets (real + financial) excluding home where one lives

ISAE defines a measure of "subjective poverty"as the level of income necessary to maintain an adequate standard of living. This level varies in relation to family composition and is established on the basis of a Pan-European Survey. Specifically a monthly income of 1,040 € for a 1 member family, 1,360 € for a 2 members, 1,650 € for a 3 members, 1,800 € for 4 members.

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The results : *how do individuals currently aged 55 differ according to the resources needed during retirement?*

- **Income gap:**

  22% of the cases examined shows an income gap

- **Financial Wealth Gap**

  25% of the sample does not have enough financial assets to afford future debts arising from social security needs (valued as a function of the existing income gap) plus long term health care protection and longevity risk

- **Financial and Real Wealth Gap**

  Even adding the real assets to the financial assets (excluding the home where one lives), **19%** of clients shows a negative balance between assets and liabilities. If we include the home where one lives, then nobody shows a gap

N.B The data are weighted in order to be representative of the 828 interviewed clients aged over 55. However, one must keep in mind that the original sample is biased towards the wealthy and that the current generation of retirees is relatively lucky and well-off in terms of substitution rates.

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Dynamic efficiency: potentialities for a personalized ALM for clients aged 55 and over

- For most of the cases examined, obtaining adequate income during retirement plus coverage from longevity risk and long term care requires substantial portfolio planning

- Almost all clients would have a viable lifetime resources, in an ALM planning perspective, if the home where they live could be partly used for financing the gaps

- There is enormous scope for looking at assets of retirees and of individuals close to retirement from a global ALM perspective

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Conventional wisdom argues that as individuals approach retirement they should hold safer portfolios …

… however we do not get compelling answer from theoretical models and individual subjective attitudes confirm heterogeneity of inclinations

Expectations on future income	As one gets to retirement age the portfolio share invested in risky asset should ...		
	increase	***decrease***	***not change***
stable	6,2%	48,1%	45,7%
increasing trend	9,8%	51,2%	39,0%
decreasing trend	7,4%	53,7%	38,9%
don't know	2,8%	46,9%	50,3%
Total	**6,1%**	**48,8%**	**45,1%**

Source: PGAM Research on 2003 UniCredit Survey data.

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The issue: diversification (also in equities) may be appropriate even for retirees

Working hypotheses:

- Affluent retirees long on bonds and real estate may need to hold equities for good diversification….
- …the more so if they hold a “dynastic” view

- Even less fortunate retirees with long life expectancy may want to hold a minimum amount of equities unless….
- …they are short on real estate and on bonds because they are deep in reverse mortgages

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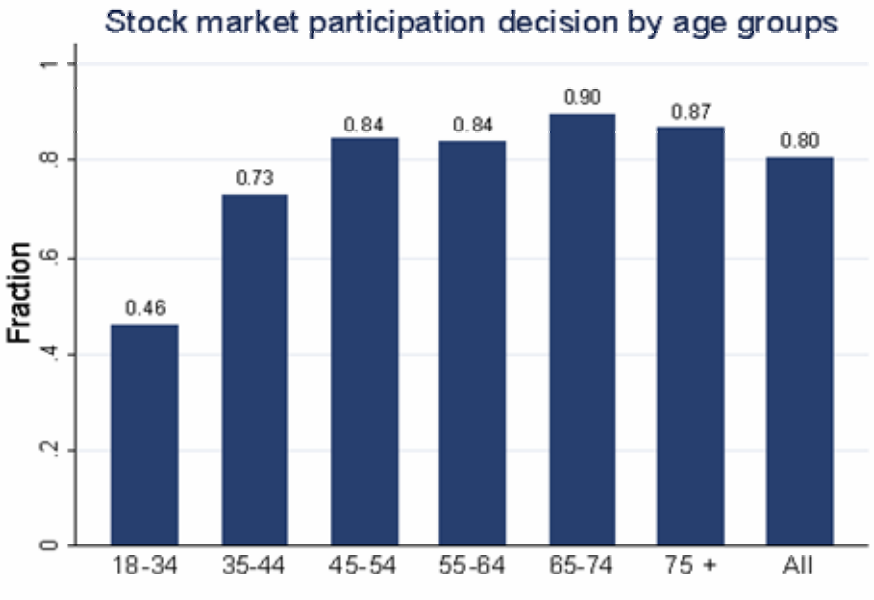
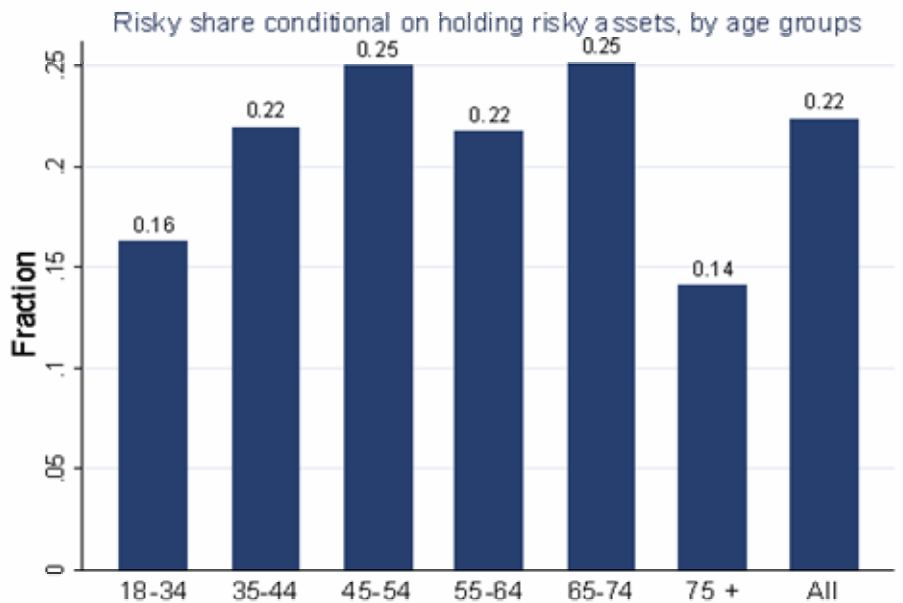
What about current portfolios?





Risky assets include: listed and unlisted shares, derivatives, equity mutual funds and managed accounts, real estate funds.

Source: PGAM Research on 2003 UniCredit Survey data.

- High stock market participation rates among the elderly
- Clients aged between 55-74 who participate to the stock market do not seem to hold safer portfolios

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Creating a framework for optimizing utility over time

Key problems:

- Developing simple ‘models’ of representative individuals
  - Capturing large fraction of individual variation
  - Understandable to individuals and their advisors
- Designing appropriate investment products for these groups. Basically capturing the appropriate quality of diversification over time
- Designing frameworks for choice, including appropriate defaults

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A difficult task: translate complexity into simple solutions

The model needs to be complex enough to take into account of:

- Family characteristics
- Human Capital
- Other investments (including businesses)
- Housing
- Public retirement programs
- Bequest motives
- Entrepreneurship

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Need for “bottom up” analysis as a base for advice and financial innovation

- Paternalistic “top down” advice (for example sell equities as you age) may be grossly misleading (the elderly may have good reasons to diversify into equities if they are “long” on bonds and real estate, have a dynastic view, and are moderately risk prone)
- On the other hand high risk may not be affordable for some categories
- “Bottom up” household analysis can help uncover many specific needs
- Producers and distributors can add value by helping overcome information inefficiencies
- Financial innovation should follow: for example, reverse mortgages, survivor bonds, and many other to be studied

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Appendix

The extracted 65 individuals differ for wealth, profession and family structure

Total wealth [excluding home where one lives]		Single Component: one income households		Two Components: one income households	Two Components: two incomes households	More than 2 components: one income households	More than 2 components: two incomes households	
	PROFESSION							
low	**employees**	4		1	1	4		
0-50 k	**self employed**				1			
	retirees	1		2	1	2		
			5		6		6	17
medium	**employees**	2		3	2	4	1	
50-400	**self employed**			3		1		
	retirees	2		1	2	2	1	
			4		11		9	24
high	**employees**	4		2	1			
>400k	**self employed**	4		1	3	2	2	
	retirees	2		1	1	1		
			10		9		5	24
	TOTAL	19	0	14	12	16	4	**65**

Details on how we calculated the gaps

Income gap = First Pillar Pension of the individual + First Pillar Pension of his/her spouse (if any) - ISAE standard of living benchmark

ASSETS	LIABILITIES
Financial Asset	Income Gap
Severance pay	Insurance Premium for longevity risk
Pension Funds	Long term care
	Insurance Premium for spouse survivorship risk (if any)

FINANCIAL WEALTH GAP = Financial assets- Liabilities

FINANCIAL AND REAL WEALTH GAP = Financial Wealth Gap + Real wealth (excl. home)

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How we calculated Long Term Care and Longevity Risk

Longevity risk

To obtain the Longevity Risk we calculated the present value of the income gap over a period equal to residual life expectancy, which varies with sex and age. We added to this amount the premium paid to insure the individuals against the survivorship risk (i.e. the premium for a lifelong annuity equal to the annual income gap).

Long Term Care

We calculated the premium for a Long Term Care insurance with the following characteristics:

-10 year-long program bought at 75, guaranteeing a monthly return equal to 1.549,37 euros for lifetime in case of disability

- lifetime annuity to be bought at 85, guaranteeing a monthly return for health care equal to 412,18 Euro

To calculate LTC and Longevity Risk we consider:

- for married people with only one income earner, also the LTC for the spouse

- for married people with two income earners: both LTC and Longevity Risk have been calculated also for the spouse. The income gap is the starting point and is attributed for 60% to the interviewed individual and for 40% to his spouse .

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