



The public economics of long term care. What can we learn from SHARE?

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Motivation

- We know that LTC needs are going to increase in the next decades. The reason is mainly demographic. By 2050, we expect that the share of people aged 80+ will triple and the prevalence of dependency is very high in that age group.
- We also know that the family that provides today the bulk of LTC could be less active in the coming years. The state provides some services through an array of programs that are either universal or means tested. The insurance market's role is up to now negligible.

Motivation (2)

An interesting stream of research aims at looking at the optimal design of a LTC social program and at investigating its political sustainability. One of the problems with this exercise is that it rests on assumptions concerning facts about LTC. It is hoped that the existing waves of SHARE could cast some light on these facts and lead to a set of stylized facts. Another contribution of SHARE is to help constructing reliable forecasts as to future needs

- Definitions and facts
- LTC market puzzle.
- LTC social insurance: design and political sustainability.
- Need of evidence.
 - Existing evidence
 - Evidence that SHARE could provide
 - Evidence that SHARE is unlikely to provide

Definition and Facts

- Long-term care concerns people who depend on help to carry out daily activities such as eating, bathing, dressing, going to bed, getting up or using the toilet. It deals with **nursing** care rather than with **health** care.
- Demand side: More than two out of five people aged 65 or older report having some type of functional limitation (sensory, physical, mental, self-care disability, or difficulty leaving home). The relative importance of people aged 65+ (80+) will more than double (triple) by 2050.

Definition and Facts (2)

- Supply side: Main provider: the family. Yet, with the drastic change in family values, the growing number of childless households, the increasing rate of participation of women in the labor market, and the mobility of children, the number of dependent elderly who cannot count on the assistance of anyone is increasing.
- Costs are increasing: no technological change but labor intensive (Baumol disease).

Definition and Facts (3)

	Contribution of the State, the market and the family to health care, retirement income and long term care		
	State	Family	Market
Old age income	65%	5%	30%
Long term care	20%	75%	5%
Health care	80%	-	20%

The LTC puzzle

- Parallel to the annuity puzzle: few people buy annuities whereas the theory tells that they should.
- Both the theory and common sense tell that more people should purchase a LTC Insurance and yet they don't.

The LTC puzzle (2)

- High prices (adverse selection or administrative costs)
- Families as substitutes (cheaper and preferred)
- Social assistance as Good Samaritan (failure of means tests)
- Unattractive rule of reimbursement (ex post moral hazard)
- State-dependent utility
- Myopia or ignorance
- Denial of severe dependence

Question: are these explanatory factors decreasing?

Conceptual issues

- Laundering out filial altruism
- How to treat forced altruism (social norm)?
- How to treat the state of severe dependence?
- New paternalism that arises in case of misperception
- Pitfalls of utilitarianism when dealing with different preferences

Social insurance (2)

Canonical model

Lifetime utility of the parent:

$$U = u(c) + (1 - \pi) u(d) + \pi (pH(m_1) + (1 - p)H(m_2))$$

or

$$U = u[w((1 - t)(1 - e)) - s - \theta] + (1 - \pi)u(Rs) \\ + \pi [p(e) H(Rs + g + a + \theta/\pi) \\ + (1 - p(e))H(Rs + g + \theta/\pi)]$$

The revenue constraint implies that

$$wt(1 - e) = \pi g$$

Except if g and a are mutually exclusive (no topping up), then

$$wt(1 - e) = (1 - p) \pi g$$

Extensions

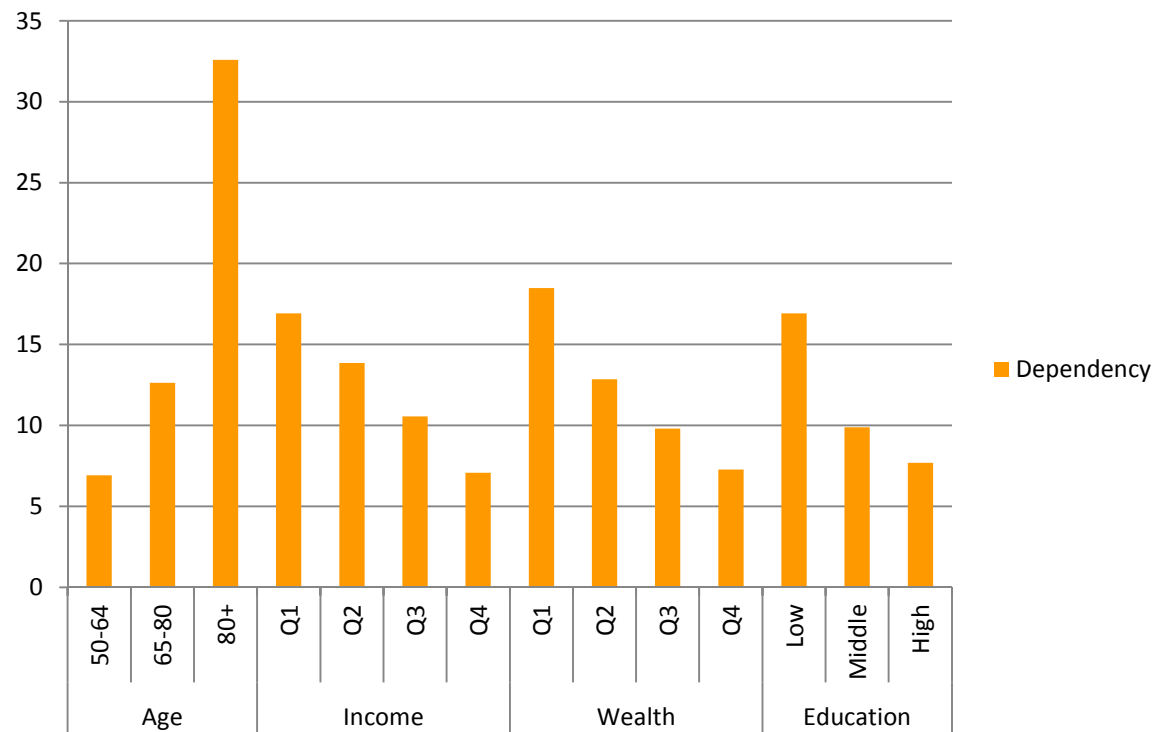
- Children's aid in time or in money (a_1 and a_2)
- Education can enhance human capital or foster filial altruism (e_1 and e_2)
- Aid depends on children's income, altruism, their number
- The role of spouses
- The arguments of H (informal aid, formal nursing, institutionalization) are not perfect substitutes

On the correlation between

- w and p
- w and π
- w and e
- a and w
- a and e

Need of evidence (2): Existing evidence from SHARE

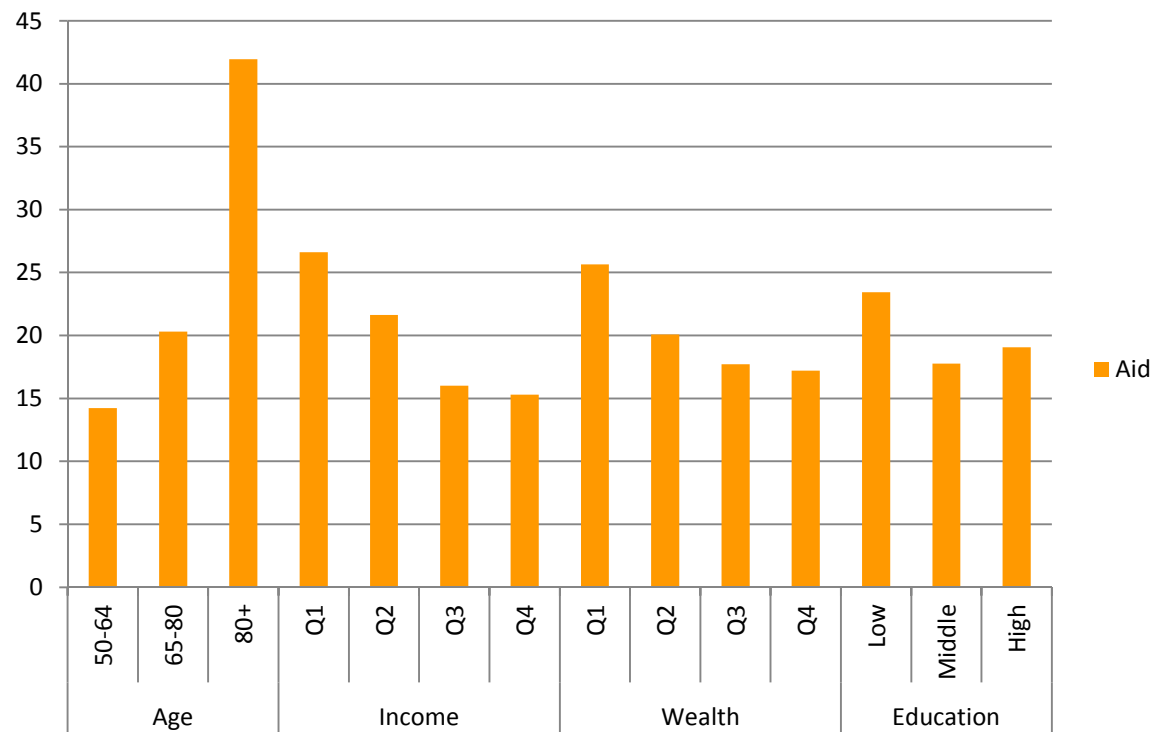
- Dependency grows with age and decreases with IWE (W4)



Spearman correlations	
	Dependency
Age	0,21
Income	-0,11
Wealth	-0,13
Education	-0,12

Need of evidence (3): Existing evidence from SHARE

- Receiving informal aid grows with age and decreases with IWE (W4)



Spearman correlations	
	Aid
Age	0,19
Income	-0,11
Wealth	-0,08
Education	-0,05

Need of evidence (4): Existing evidence from SHARE

- Women more dependent than men, women receive more informal help (W4)

SHARE				France	Netherlands	Italy	Denmark
<i>Variables</i>	Dependency	Aid	Aid if dependency	Aid if dependency	Aid if dependency	Aid if dependency	Aid if dependency
Men	11,1	16,1	38,3	33,0	35,7	38,7	56,9
Women	12,9	23,4	49,5	50,0	45,8	52,6	63,9

SHARE (75+)				France	Netherlands	Italy	Denmark
<i>Variables</i>	Dependency	Aid	Aid if dependency	Aid if dependency	Aid if dependency	Aid if dependency	Aid if dependency
Men	22,6	29,1	51,2	47,8	40,9	46,5	65,0
Women	29,8	40,9	59,0	60,3	59,5	62,9	72,5

Need of evidence (5): Existing evidence from SHARE

- Imperfect correlation between different measures of dependency (W4)

Spearman correlations (SHARE)			
	ADL2	IADL2	MOBILIT3
ADL2	1		
IADL2	0,5	1	
MOBILIT3	0,47	0,53	1

Spearman correlations (SHARE 75+)			
	ADL2	IADL2	MOBILIT3
ADL2	1		
IADL2	0,51	1	
MOBILIT3	0,45	0,53	1

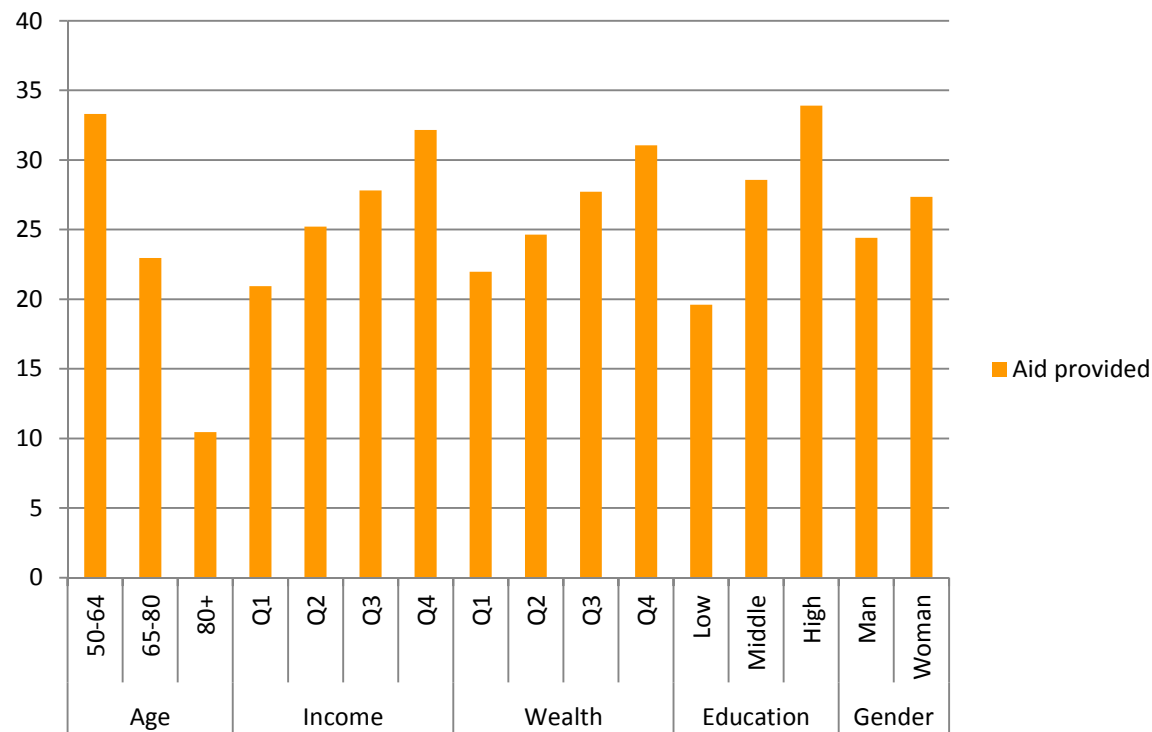
ADL2 = 1 or + Daily Activity Limitations

IADL2 = 1 or + Instrumental Daily Activity Limitations

MOBILIT3 = 3 or + Mobility Limitations

Need of evidence (6): Existing evidence from SHARE

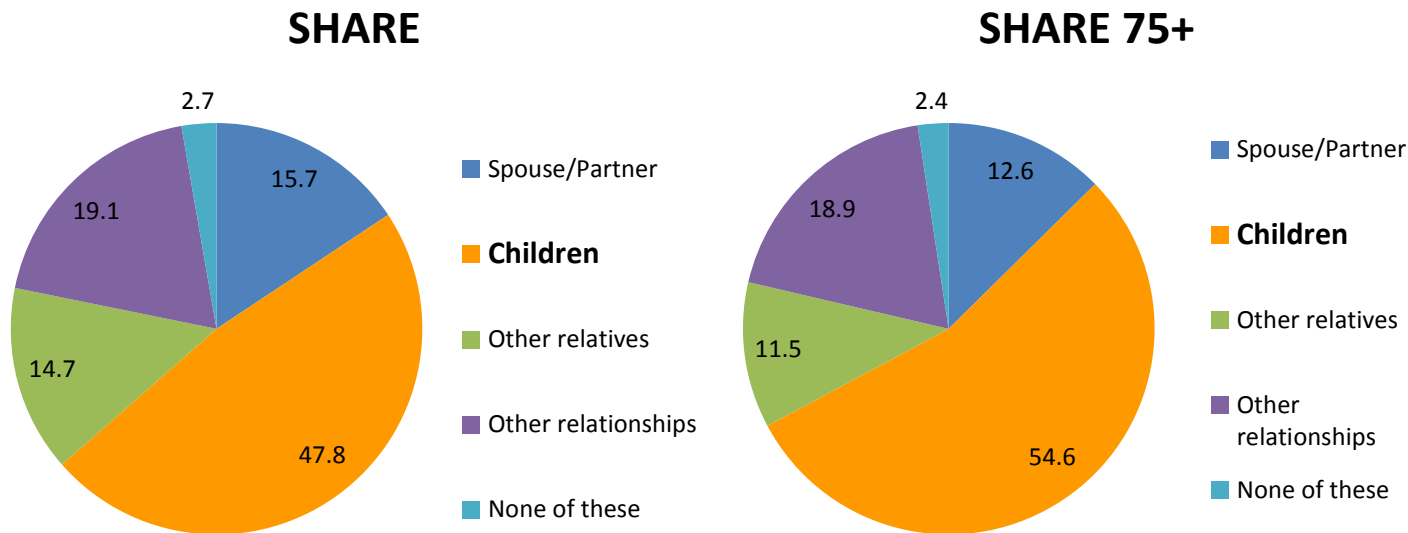
- Providing informal aid for 50+ decreases with age and grows with IWE (W4)



Spearman correlations	
	Aid provided
Age	-0,19
Income	0,1
Wealth	0,08
Education	0,13
Woman	0,034

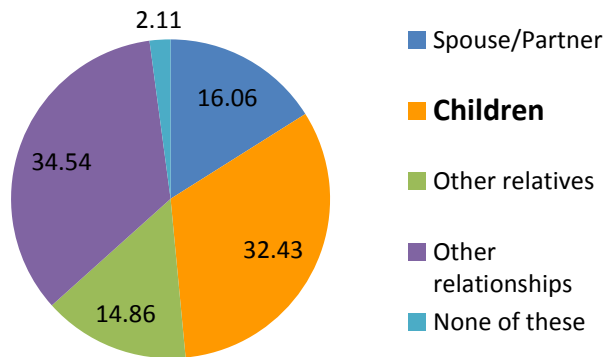
Need of evidence (7): Existing evidence from SHARE

- Care givers are mainly children (48%)

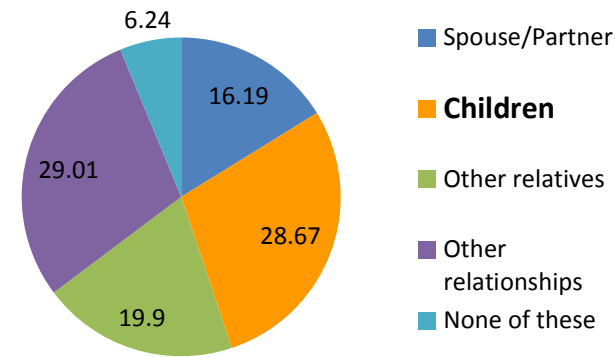


Need of evidence (8): Existing evidence from SHARE

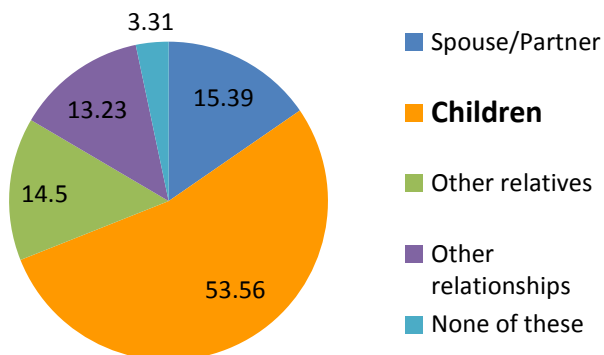
France



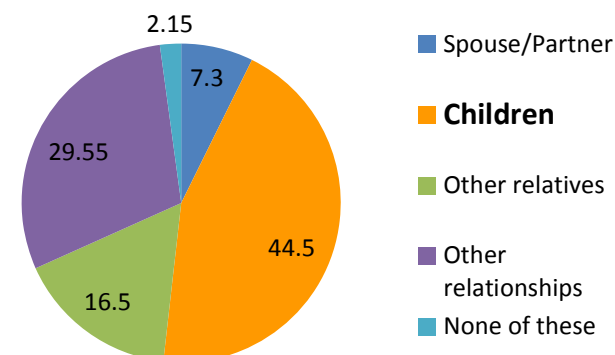
Netherlands



Italy



Denmark



Need of evidence (9): Existing evidence from SHARE

- Among helpers one has: children in law (8%) and children (40%)

	SHARE	SHARE 75+	France	Netherlands	Italy	Denmark
Children	40,2	48,0	26,4	20,7	45,3	32,4
Child-in-law	7,6	6,6	6,0	7,9	8,3	12,1

- Positive relation between aid providing and expectation of inheritance (weak)

		Aid provided		
Chance of receiving inheritance	More than 40%	44,03	Aid	More than 40% chance of receiving inheritance
	Less than 40%	22,25		More than 40% of chance inheritance more than 50000 €
Chance inheritance more than 50000 €	More than 40%	44,56	No aid	25,36
	Less than 40%	36,35		37,2
				11
				29,62

Need of evidence (10): Existing evidence from SHARE

- No relation between receiving aid and having children

	Aid	Aid for 75+
No child	22,67	35,52
1/2 children	19,42	35,11
3 children or more	21,31	36,29
Spearman corr.	0,0038	0,0089

Problems with SHARE that can eventually be solved

- Prevalence of dependency between waves ?

SHARE			
	Wave 1	Wave 2	Wave 4
ADL2	9,86	10,39	12,11
IADL2	16,62	16,62	18,26
MOBILIT3	22,57	23,78	26,52

SHARE 75+			
	Wave 1	Wave 2	Wave 4
ADL2	25,29	24,8	25,76
IADL2	39,67	39,03	39,1
MOBILIT3	46,95	48	49,21

Belgium			
	Wave 1	Wave 2	Wave 4
ADL2	11,24	12,66	15,77
IADL2	17,43	17,49	20,66
MOBILIT3	21,09	22,26	25,21

Belgium 75+			
	Wave 1	Wave 2	Wave 4
ADL2	26,35	27,69	32
IADL2	38,74	38,74	42,72
MOBILIT3	42,56	41,89	47,86

- Too few waves to see how the prevalence of dependency per age evolves
- Not enough evidence on caregivers

Problems with SHARE that can eventually be solved (2)

- Formal care does not distinguish between market and public care
- Poor data on private insurance
- Institutionalization: real costs and cause
- Causes of non institutionalization
- Relation between dependency and longevity
- Distinction between dependency that goes back to retirement and before retirement years and dependency that starts in old age

Problems that are not likely to be solved

- Cost of informal care (psychological and physiological)
Can they explain the declining longevity in good health of women?
- Evidence on strategic impoverishment: adjustment of one's resources to be eligible to public benefits
- Exchange between generation: poor information on those below 50
- Motives of family care:
 - Pure altruism
 - Exchange
 - Social norm (forced altruism)

Conclusions

SHARE is an outstanding instrument to better understand the problems of long term care. It will improve overtime with more years covered and more relevant questions. It will always need to be supplemented by other panels covering the whole age spectrum and by topical evidence.