Redistribution of individual pension wealth to survivor pensions: Evidence from a stated preferences analysis

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ROA

Relevance

- Survivors' pensions:
  - Benefits to a person whose spouse (or parent) has died
  - Known since end 19th century
  - Significance: 6% of the total expenses on social benefits in the EU (unemployment: 5%; disability: 7%)

- In NL (and elsewhere), 1st pillar survivor pension scheme has been drastically curtailed

  → responsibility shifted to individuals & possibilities to insure in 2nd pillar

Relevance

- The take-up rate of this redistribution product in the second-pillar pension scheme remains low (only 4% of employees decided to invest in the survivor annuity)
  - due to lacking communication
  - poor knowledge of survivor pensions among employees
  - lack of transparent products and choice architecture.
- Recent research commissioned by a large insurance company (Motivaction, 2019):
  - Only one in three knows that partner's pension in the second-pillar pension scheme is related to the death of the retired employee
  - One in three have no idea about partner's pension entitlements.
  - More than half of all employees do not know what the partner pension means financially
  - But 25% of employees report that they will run into financial problems if their partner would die.

Relevance

Research question:

To what extent are employees willing to redistribute their own pension wealth to their surviving partner and what actually drives their decision to redistribute?

This paper

- We estimate workers' willingness to redistribute own pension wealth to the survivor pension of their partner
- We investigate how this redistribution relates to
  - Gender
  - Time preference (Eckel et al. 2005)
  - Risk attitude (Brown 2001)
  - Altruism (Laitner & Ohlsson 2001)
  - The personality traits of the partner
- We apply a stated preferences experiment (Dutch data)

- We find:
  - 1 in 3 have preference to redistribute ½ of their pension wealth.
  - Preferred redistribution depends on:
    - Own contribution to total family income (but not its level)
    - Survival likelihood of the partner & number of years the partner is expected to survive
    - Stronger redistribution when male, forward-looking, risk averse and altruistic
    - Stronger redistribution when partner is more forward looking

Related literature

- Our contribution:
  Micro-economic evidence on who invests in survivor pension is thin

  - Previous empirical studies use outdated data for the US (e.g., Holden et al., 1986; Myers, 1987; Turner, 1988; Holden and Nicholson, 1998; Johnson et al., 2005).

  - Strong focus on annuitization decisions of married men (e.g., Holden et al., 1986; Holden & Nicholson, 1998).

  - Literature focuses on characteristics of individuals who are already retired, but decisions to invest in survivors' pension plan are likely made earlier.

  - Survivor pension options within current pension schemes are hard to comprehend for an average worker (Staarink and Visser 2017) and may lead to an underestimation of the willingness to invest in survivors pensions → With stated pref we know the conditions under which one is choosing.

Data

- Online survey among participants to Dutch public sector's pension fund (ABP)
  - Fieldwork: first week of April 2015
  - E-mail sent to 7,520 randomly selected e-mail addresses from employees born 1952-1975

- Eggers et al. (2015): results of stated-preference experiments are close to revealed preferences when respondents' engagement with the choices to be made is high:
  - We select 1,602 working respondents who have a partner and are aged 55-65 years in our estimation sample.

- Focus on 1,586 respondents aged 55-65 (9,511 obs. for vignettes) after item-non-response
  - Survey included stated pref experiment + background questions

Stated preferences experiment

- In 6 vignettes, respondents have to choose between 5 redistribution options that differ in:
  1. The level of the monthly pension benefits until one's own death
  2. The actuarially related pension of the widowed partner after one's own death

→ Imply different levels of smoothing of pension benefits until one's own death and the pension for the widowed partner

Example in case of partner without income

○	You will collectively receive 3500 euros until your death. Your partner will then receive 1150 euros	**No smoothing**
○	You will collectively receive 3314 euros until your death. Your partner will then receive 1552 euros	
○	You will collectively receive 3129 euros until your death. Your partner will then receive 1954 euros	
○	You will collectively receive 2943 euros until your death. Your partner will then receive 2356 euros	
○	You will collectively receive 2758 euros until your death. Your partner will then receive 2758 euros	**Complete smoothing**

Stated preferences experiment

- 4 conditions in the vignettes with randomized values:
  1. **Level** of monthly family income during working life:
     €5,000 – €6,250 – €7,500
  2. Own and partner's **contribution** to family income during working life:
     100% self & 0% partner – 75% self & 25% partner – 50% self & 50% partner – 25% self & 75% partner
  3. **Survival probability** of the partner:
     40% – 60% – 80%
  4. **Number of years** the partner survives:
     3 – 5 – 8 years

Stated preferences experiment

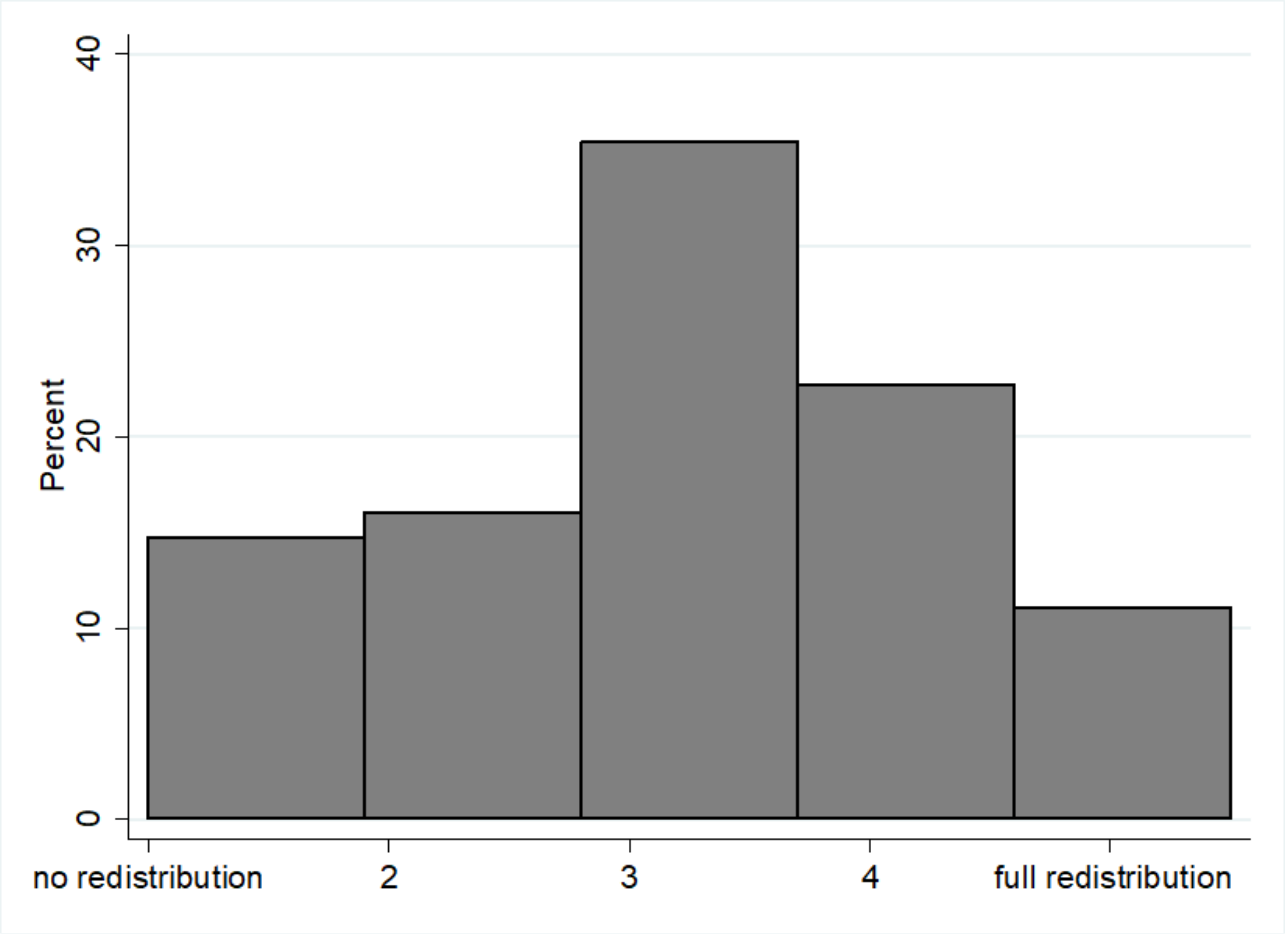
Figure A1
Screen shot stated preferences vignette

Pension redistribution preferences

Imagine that you are a person who lives together with a partner who is the same age as yourself. The gross family income before you retire is **5000 euro per month**. Your salary is **5000 euros** before retirement, and your partner earns **0 euros**. You are both retiring at the **age of 67**. You and your partner do not have any equity or debt and will not have any other income besides the pension. In the event that you do not arrange for a survivor's pension for your partner, you will receive a **joint pension of 3500 euros up to your death** (including AOW). If you die earlier than your partner does, your partner will only receive **his / her own pension** during the rest of his / her life (minimum pension amount is the AOW). However, it is possible that you give your partner a higher pension if you die. You can do this by redistributing part of your pension during your life against a higher pension of your partner after your death. Imagine that the **probability is very high (about 80%)** that your partner survives for at **least 3 years**, which of the redistribution options below would you choose?

- ◯ You will collectively receive 3500 euros until your death. Your partner will then receive 1150 euros
- ◯ You will collectively receive 3314 euros until your death. Your partner will then receive 1552 euros
- ◯ You will collectively receive 3129 euros until your death. Your partner will then receive 1954 euros
- ◯ You will collectively receive 2943 euros until your death. Your partner will then receive 2356 euros
- ◯ You will collectively receive 2758 euros until your death. Your partner will then receive 2758 euros

Results


Percent
0
10
20
30
40
no redistribution
2
3
4
full redistribution

	(1)	(2)	(3)	(4)	(5)
Dependent variable: Pension redistribution Marginal effects of ordered probit	predict(outcome(#1))	predict(outcome(#2))	predict(outcome(#3))	predict(outcome(#4))	predict(outcome(#5))
Family income during working life					
Family Income during working life = 6250 (low income (5000) = ref.)	0.005	0.002	0.000	-0.003	-0.004
	(0.006)	(0.003)	(0.000)	(0.005)	(0.005)
Family Income during working life = 7500	0.001	0.001	0.000	-0.001	-0.001
	(0.006)	(0.003)	(0.000)	(0.005)	(0.005)
Contribution to family income during working life					
75% oneself and 25% partner (100% oneself = ref.)	-0.006	-0.005	-0.003	0.005	0.008
	(0.004)	(0.003)	(0.002)	(0.004)	(0.006)
50% oneself and 50% partner	0.078***	0.046***	0.006**	-0.063***	-0.068***
	(0.007)	(0.004)	(0.003)	(0.006)	(0.006)
25% oneself and 75% partner	0.121***	0.062***	-0.004	-0.091***	-0.088***
	(0.010)	(0.005)	(0.005)	(0.008)	(0.006)
Likelihood that partner survives					
Likelihood that partner survives: 60% (40% = ref.)	-0.016***	-0.009***	-0.001	0.012***	0.014***
	(0.006)	(0.003)	(0.001)	(0.004)	(0.005)
Likelihood that partner survives: 80%	-0.020***	-0.011***	-0.001	0.015***	0.017***
	(0.006)	(0.003)	(0.001)	(0.005)	(0.005)
Number of years that partner survives					
Years that partner survive: 5 (3 =ref.)	-0.016***	-0.008***	0.000	0.012***	0.012***
	(0.006)	(0.003)	(0.001)	(0.005)	(0.005)
Years that partner survive: 8	-0.028***	-0.015***	-0.001	0.021***	0.023***
	(0.006)	(0.003)	(0.001)	(0.005)	(0.005)
Observations	9,511	9,511	9,511	9,511	9,511

Preferences (Dohmen et al., 2011; and Falk et al., 2018)

- **Time preference:**
  'How willing are you to give up something that is beneficial for you today in order to benefit more from that in the future?'
  0=completed unwilling to do so … 10=very willing to do so

- **Risk aversion:**
  'How do you see yourself: are you a person who is generally willing to take risks, or do you try to avoid risks?'
  0=not at all willing to take risks … 10=very willing to take risks

- **Altruism:**
  'Imagine the following situation: today you unexpectedly received € 1,000. How much of this amount would you give to charities without expecting anything in return?'
  … amount in €

Ordered probit: Marginal effects of the predicted probability for the largest redistribution	(1)	(2)	(3)	(4)
Personal Characteristics				
Gender (male = 1)	0.056***	0.056***	0.057***	0.059***
	(0.010)	(0.010)	(0.010)	(0.010)
Age	0.003**	0.003**	0.003**	0.003**
	(0.001)	(0.001)	(0.001)	(0.001)
High education level	-0.017*	-0.020**	-0.019**	-0.021**
	(0.010)	(0.010)	(0.010)	(0.010)
Standardized time preferences (forward looking)		0.011**	0.014***	0.014***
		(0.005)	(0.005)	(0.005)
Standardized risk aversion			0.009**	0.009**
			(0.005)	(0.005)
Standardized altruism				0.008*
				(0.004)
N	9,511	9,511	9,511	9,511

Interaction effects vignette items and personal traits

- Personal traits could matter for sensitivity to characteristics of the vignette
  - E.g., altruism → more sensitive to # of year partner survives
- Little evidence for heterogeneity

Characteristics of the partner

	(1)
Ordered probit: Marginal effects of the predicted probability for the largest redistribution	
Personal characteristics	
Gender (male = 1)	0.055***
	(0.012)
Age	0.004**
	(0.002)
High education level	-0.018*
	(0.011)
Standardized time preferences (forward looking)	0.009*
	(0.006)
Standardized risk aversion	0.010*
	(0.005)
Standardized altruism	0.006
	(0.004)
Partner characteristics	
Age	-0.001
	(0.001)
High education level partner	-0.008
	(0.009)
Standardized time preferences partner (forward looking)	0.010**
	(0.005)
Standardized risk aversion partner	-0.000
	(0.005)
Standardized altruism partner	0.003
	(0.005)
Observations	9,383

Robustness checks

- Results for privatized sector are rather similar

- Basic model with attributes in experiment: excluding 50% redistribution yields same results

Conclusion

- This study adds to the literature on survivors' pensions in multiple ways:
  1. Our stated-preferences experiment provides recent evidence that fits into the current societal context
  2. We elicit the preference for survivor's protection in a realistic vignette
  3. Randomization of key conditions in the vignettes allows for causal interpretation
  4. We consider gender differences in survivor pension decisions
  5. Preferences for survivor pension depends on time preference, risk preference, altruism and the time preference of partner
- We show that there is a strong demand for survivor's pensions, especially among men.
- Personality traits of both partners matter!
- Will this gender difference attenuate due to changing gender roles?