Joint Retirement In Europe

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Topic

- research topic of significant potential policy relevance
- LC supply typically modeled as individual decision;
  main focus: financial incentives & health status
- conceivable: spouses shape retirement decision through
  - common shocks, common incentives
  - household production
  - spousal care provision
  - common preferences; leisure complementarities, etc.

- spill over: spousal retirement may induce retirement
- either: exploit policy rules (+ changes) that hit spouses differentially
- or: structural modeling of dependence in spousal retirement decisions

This Paper

- ambitious
  - uses two micro data sets SHARE and ELSA, covering many countries (targeted at health and retirement of 50+ pop)
  - applies novel estimation strategy (H&DP 2014) for dependent durations w/ joint failure; (semi) structural
- nice economics
  - structural approach has potential to test competing theories
- novelty
  - complementary evidence to Banks et al (2010) and Hospido/Zamarro (2014), and H&DP (2014)
- core findings
  - SHARE: no utility cross-dependence; but hampered by limited panel aspect
  - ELSA: evidence depends on whether correlation in random terms is allowed for

Recommendations

- clearer motivation why using those data sets
- clearer discussion of what is / is not available in the data
- cleaner write-up incl notation (e.g. multiple β's and θ's ...)
- closer tying in of econometric estimates and economic interpretation
- robustness checks wrt specification and functional form
- move the paper away from its twin sibling H&DP (2014)

Share Data
Uncensored Transition Freqs (T.1)

♂ / ♀	2005	2006	2007	2008	2009	2010	2011	
2005	6	2	0	1	3	1	1	14
2006	4	11	2	3	5	4	1	30
2007	2	0	10	2	5	5	0	24
2008	1	2	6	8	7	8	3	35
2009	0	4	3	6	9	11	1	34
2010	1	1	2	10	7	7	4	32
2011	2	4	6	2	5	8	6	33
								202

♂: husband, ♀: wife

- what %age is imputed in this data?
- what type of errors (recall?) may affect the measurements?

Sample Definition and Specification

- sample size is limited; yet: is it possible to
  - use marital history information to select stable marriages?
  - condition on hours worked at baseline? (exc part-time)
- control for lots of other observables (if available)
  - objective health
  - education; income/wealth
  - industry; occupation; job characteristics
  - having children/grandchildren

- not entirely straightforward to understand the link between four different submodels in the auxiliary model (AM) and the structural model (SM)
- even though AM can be misspecified, usually chosen to capture structure of covariation in the data — any comments on this?
- what are the potential consequences of misspecification of AM for inference and interpretation of SM parameters? robustness?
- in addition, choice of AM possibly important for efficiency
- goodness of fit?

On δ and τ

- δ captures dependence of durations in post-retirement utility after spouse retires

$$\ln(\delta) + \theta_1 \ln(t) + \theta_2 x$$

before spouse retires

$$\theta_1 \ln(t) + \theta_2 x$$

(rewritten in log-form)

  - leisure not an argument of the utility function; so δ captures any cross effect during retirement
  - interpretation: leisure complementarity?
  - have δ depend on observables / interact w x's?

- τ captures correlation in unobserved rd utilities
  - statistically ≈ 0 in all models, yet influential (ELSA: $\delta \to 1$)

▸ SHARE ▸ ELSA

Other Parameters

- possibility of testing for the collective model (SWF/HUF)

$$\max_{t_1,t_2} \qquad c\ U^1(t_1,t_2,x_1,K_1) + U^2(t_1,t_2,x_2,K_2)$$

v Nash bg model

$$\max_{t_1,t_2} \quad \left[U^1(t_1,t_2,x_1,K_1) - A_1\right] \times \left[U^2(t_1,t_2,x_2,K_2) - A_2\right]$$

- sensitivity wrt modeling A_i?
  "set at 0.6 times utility they would have obtained if" $t_j \to \infty$?
- allow for bg weights (high earner 'forces' low earner to accommodate his/her own retirement choices)?
- possibility to estimate ρ from survey data?

Some Literature: Effects of Induced Retirement
Nonstructural Papers

Zweimuller et al 1996	change in elig age of ♀ induces ret of ♂
Baker 2002	♀ reaching elig age decreases ♂ LFP rate by 6-7 pp
Banks et al 2010	♀ reaching elig age increases ♂ prob to retire by 14-20 pp
Stancanelli 2012	pos effect of ret on spousal hours worked (both ♂ and ♀)
Hospido Zamarro 2014	induced ret of ♂ increases ♀ prob to retire by 17 pp
Bloemen et al 2015	ER window for ♂ increases ♀ prob to retire by 25 pp

♂: husband, ♀: wife

- how might your estimates translate, what can be compared?
- however, smooth fn of time rather than identif at discontinuity

▸ SHARE ▸ ELSA

Results SHARE

Table 9: Simultaneous Duration (SHARE)

Variable	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.)	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.)	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.)	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.
δ	1.08 (0.18)		1.01 (0.29)		1.08 (0.51)		1.00 (0.02)	
θ_1	6.44 (0.45)	5.84 (0.24)	6.53 (2.40)	5.84 (0.32)	6.55 (1.90)	5.95 (0.87)	6.73 (0.36)	5.95 (0.78)
Age Diff.	-1.58 ** (0.57)	0.31 (0.14)	-1.50 ** (0.80)	0.30 (0.22)	-1.76 ** (0.42)	0.34 † (0.19)	-1.52 ** (0.36)	0.34 (0.44)
≥ V.G. Health					-0.16 (0.23)	-0.45 ** (0.15)	-0.13 (0.22)	-0.45 * (0.18)
≤ Fair Health					0.21 (0.27)	-0.57 ** (0.21)	0.06 (0.33)	-0.48 * (0.22)
Country Controls	YES		YES		YES		YES	
τ			0.81 (2.58)				0.77 (1.00)	
N	4083		4083		3715		3715	
Function Value	6.09		1.68		7.42		2.02	

Significance levels :† : 10%   ∗ : 5%   ∗∗ : 1%. Significance levels are not displayed for θ_1 or δ. $\rho = 0.004$ and $R = 10$.

Results ELSA

Table 10: Simultaneous Duration (ELSA)

Variable	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.)	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.)	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.)	Wife Coef. (Std. Err.)	Husb. Coef. (Std. Err.)
δ	1.46 (0.12)		1.03 (0.32)		1.36 (0.18)		1.01 (0.13)	
θ_1	2.82 (0.17)	2.85 (0.11)	2.94 (0.34)	3.18 (1.11)	3.01 (0.36)	3.29 (0.27)	3.11 (0.19)	3.38 (0.18)
Age Diff.	-0.74 ** (0.26)	0.16 (0.16)	-0.56 ** (0.26)	0.01 (0.20)	-0.56 ** (0.42)	0.12 (0.19)	-0.53 (0.38)	-0.08 (0.23)
$\geq$ V.G. Health					0.16 (0.24)	0.05 (0.20)	0.12 (0.21)	0.11 (0.20)
$\leq$ Fair Health					0.29 (0.24)	0.14 (0.34)	0.22 (0.36)	0.17 (0.27)
τ			2.26 (5.13)				2.81 (2.56)	
N	1389		1389		1110		1110	
Function Value	1.91		0.01		3.72		0.11	

Significance levels :† : 10% $*$: 5% $**$: 1%. Significance levels are not displayed for θ_1 or δ. $\rho = 0.004$ and $R = 10$.