

Self-employment and Early Retirement: the Moderating Role of Well-being

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Motivation

Well-being (*WB*) is a relevant factor in the retirement intentions and decisions.

(e.g. Fisher and Herrick, 2002; Sibbald et al., 2003; Davies et al. 2017).

Higher *WB* is usually associated to delay the retirement.

(e.g. Davies and Cartwright, 2011; Kautonen et al., 2012; Oakman and Wells, 2013).

Population ageing puts social welfare at risk in many Western countries.

(e.g. OCDE, 2006; European Commission, 2011; Eurostat, 2017) .

Governments have started to design policies focused on curbing early retirement decisions.

(e.g. European Commission, 2010, 2015; International Labor Organization, 2015).

Analyzing whether *WB* is equally important across occupations (SE versus. PE) can be helpful for the development of such policies.

Motivation

SE workers report higher levels of *WB* compared to *PE*, especially regarding job satisfaction (*JS*).
(*e.g. Blanchflower, 2004; Andersson 2008; Benz and Frey, 2008; Lange 2012*).

The *WB* of *SE* workers can also be explained by psychological and emotional factors like job identity and passion, or attachment and commitment to work.
(*e.g. Shane et al. 2003 ; Cardon et al. 2009*).

All these factors can influence the retirement decisions of workers.
(*e.g. Kim and Moen 2002; Wang and Shultz, 2010; Morris et al., 2020*).

For *SE* workers, the nonpecuniary benefits and these psychological and emotional factors may incentivize a delayed retirement, perhaps even when their *WB* is low.

Motivation

However, whether the *SE* and *PE* have different sensitivity to *WB* when evaluating early retirement remains unexplored.

We try to fill this gap by analyzing the moderating effect of *WB* in the relationship of *SE* and *ER*.
(e.g. *European Commission, 2010, 2015; International Labor Organization, 2015*).

Research questions:

- (i) Does the probability of early retirement differ between *SE* workers and *PE*?
- (ii) Does well-being moderate the difference between *SE* workers and *PE* in the probability of early retirement?

Literature and Hypotheses

Well-being and Retirement

Retirement involves numerous changes in life - financial, labor, social - that may affect retirees.

Most of the literature has focused on the impact of retirement on older workers' *WB*, with mixed results. (e.g. *Luhmann et al. 2012; Horner 2014; Wetzell et al. 2015; Gorry et al. 2018*).

The reverse relationship has attracted less attention, with only a few papers looking (exclusively) at the impact of job satisfaction on retirement.

(e.g. *Dendinger et al., 2005; Davies and Cartwright, 2011; Kautonen et al., 2012; Oakman and Wells, 2013*).

Results usually point to a negative relationship between *WB* (job satisfaction) and *ER*.

Literature and Hypotheses

Self-employment and Retirement

Few studies have focused on the retirement behavior of the *SE*.

(*Parker and Rougier, 2007; Chevalier et al., 2018; Soleimanof et al., 2014; Morris et al., 2020*).

There are **reasons** to expect that *SE* workers will be **less likely** to retire early.

- **Procedural utility** (*Benz and Frey, 2008*), entrepreneurial **passion** (*Cardon et al., 2009*), **non-pecuniary** benefits (*Hamilton, 2000*).
- Entrepreneurial **identity**, (*Kim and Moen, 2002*) higher organizational **commitment** and **attachment** to work (*Adams and Beehr, 1998; Wanberg et al., 1999*).
- Developing an **exit strategy** (transfer/sell the firm, find appropriate successors...) (*Wennberg et al. 2010; Morris et al., 2020*).

H1: *Compared to paid employees, self-employed workers are less likely to engage in early retirement.*

Literature and Hypotheses

Well-being as a moderator

The effect of *WB* on early retirement may be different for *SE* workers and *PE*, due to:

- **Autonomy** and **flexibility** of *SE* workers → **modify their work environment** → **influence their *WB***.
- Entrepreneurial **identity** and higher work **commitment** and **attachment** → **prevent** them from retiring (even when *WB* is low).
- More complex **exit strategy** → additional **barriers** to retirement.

Therefore, we posit that *SE* workers will have **more options** than *PE* when *WB* is low, **before considering retirement**.

*H2: Compared to paid employees, self-employed workers are **less sensitive** to well-being when evaluating early retirement. In particular, the **difference** in early retirement behavior between self-employed workers and paid employees will be **smaller as well-being increases**.*

Empirical Approach

Aim: To identify the role of occupational status (SE vs PE) and well-being on early retirement.

$$Prob.(ER_{it}) = \beta_0 + \beta_1 SE_{it-1} + \beta_2 WB_{it-1} + \beta_3 X_{it-1} + u_{it} \quad (1)$$

$ER_{it} \rightarrow 1$ if the individual is an early retiree, 0 if non-retiree.

$SE_{it-1} \rightarrow 1$ when individual was a SE worker in $t-1$, 0 if she was a PE.

$WB_{it-1} \rightarrow$ Individual's well-being in $t-1$.

$X_{it-1} \rightarrow$ Set of individual-level controls (demographics, work characteristics, country dummies).

$u_{it} \rightarrow$ Unobserved heterogeneity.

Extension: **differential effects** of WB for SE workers and PE, we add the interaction term as follows:

$$Prob.(ER_{it}) = \beta_0 + \beta_1 SE_{it-1} + \beta_2 WB_{it-1} + \beta_3 SE_{it-1} \times WB_{it-1} + \beta_4 X_{it-1} + u_{it} \quad (2)$$

We estimate equations (1) and (2) through *logit* regressions.

Data

Survey of Health, Ageing, and Retirement in Europe (*SHARE*):

- Unique panel dataset with **micro-data** from individuals aged **50 or older** in Europe.
- **Info:** Retirement, occupation, well-being, household finances, demographics, mental and physical health...
- We use **waves 1, 2, 4 and 5**, covering the period **2004-2013** (wave 3 contains different, retrospective info).
- We restrict the analysis to **EU-11 countries** (Austria, Belgium, Denmark, France, Germany, Greece, Italy, Netherlands, Spain, Sweden, and Switzerland), due to data availability.
- Individuals present in at least **2 consecutive waves**, and who were **SE or PE in their first appearance**.
- Final sample: **5,314 observations**.

Measures

EARLY RETIRED

- Question in SHARE: *“In general, which of the following best describes your current employment situation?”*
- Possible answers: *(i) retired, (ii) employed or self-employed, (iii) unemployed, (iv) permanently sick or disabled, (v) homemaker, and (vi) other.*
- **1** if answer is **“retired”** and **age is below the country-specific standard retirement age**, 0 otherwise.

SELF-EMPLOYED (in $t-1$)

- Question in SHARE: *“In your main job, are you an employee, a civil servant, or a self-employed?”*
- **1** if answer is **“self-employed”**, **0** if answer is **“employee”**.

Measures (well-being)

JOB SATISFACTION (in $t-1$)

- Important component of overall *WB* and highly correlated with happiness.
(*Andersson, 2008; Binder and Coad, 2016; Böckerman and Ilmakunnas, 2019; Seligman, 2012*).
- Question in SHARE: “All things considered I am satisfied with my job “.
- 4-point Likert scale → “strongly disagree” (1) to “strongly agree” (4).

LIFE SATISFACTION (in $t-1$)

- Well established in the literature as a proxy of *WB*.
(*Diener et al., 1999; Sim et al., 2011; Naudé et al., 2014; Binder and Coad, 2016*).
- Question in SHARE: “How satisfied are you with your life?”.
- 4-point Likert scale → “completely dissatisfied” (1) to “completely satisfied” (4).

Control Variables

Demographic characteristics

- Age, gender, foreigner, married, children, grandchildren, education
- Household finances and savings
- Provide help to others (family, friends, and neighbors)
- Mental and physical health
- Country dummies

Employment characteristics

- Working hours, prospects for job advancement, job security
- Access to pension benefits
- Industry dummies

Main Results

Table 2. Estimates of the probability of early retirement.

DV: Prob.(early retirement)	I		II		III	
	dy/dx	z	dy/dx	z	dy/dx	z
<i>Main independent variables</i>						
Self-employed t_{-1}	-0.051***	-5.44	-0.051***	-5.40	-0.045***	-4.75
Job satisfaction t_{-1}			-0.011***	-2.70		
Life satisfaction t_{-1}					3e-4	0.06
<i>Demographic characteristics</i>						
Age	0.015***	13.20	0.015***	13.26	0.014***	11.64
Female	0.013*	1.95	0.013**	1.98	0.018***	2.61
Foreigner	-0.001	-0.12	-0.001	-0.14	-0.007	-0.59
Married t_{-1}	-0.007	-1.06	0.007	0.95	0.009	1.21
Children t_{-1}	-1e-4	-0.01	1e-4	0.01	0.004	0.38
Grandchildren t_{-1}	0.018***	3.35	0.018***	3.44	0.012**	2.12
Help given to others t_{-1}	0.012**	2.19	0.011**	2.09	0.011*	1.83
Poor mental health t_{-1}	-0.016**	-2.01	-0.018**	-2.19	-0.012	-1.50
Poor physical health t_{-1}	0.007**	2.32	0.006**	2.00	0.009***	2.92
Education t_{-1}						
Primary (ref)						
Secondary	-0.005	-0.76	-0.004	-0.63	-0.007	-0.90
Tertiary	-0.018**	-2.44	-0.017**	-2.30	-0.015*	-1.85
Good household financial situation t_{-1}	0.025***	3.39	0.026***	3.50	0.018**	2.34
Household savings t_{-1} (logs)	0.001	1.16	0.001	1.16	3e-4	0.54
<i>Employment characteristics</i>						
Working hours t_{-1}	-1e-4	-0.46	-1e-4	-0.35	-2e-5	0.13
Prospects for job advancement t_{-1}	-0.015**	-2.48	-0.013**	-2.15	-0.015***	-2.38
Job security t_{-1}	0.009	1.25	0.011	1.56	0.010	1.30
Entitled to pension benefits t_{-1}	-0.081***	-14.63	-0.081***	-14.67	-0.073***	-12.19
Industry dummies	Yes		Yes		Yes	
Country dummies	Yes		Yes		Yes	
Wave dummies	Yes		Yes		Yes	
N	5,314		5,312		4,474	
Predicted probability	0.051		0.051		0.048	

- *SE* is **negatively** associated with *ER* (**support for H1**).
- *JS* is **negatively** related to *ER*, in line with past studies.
- *LS* is not significantly related to *ER*.

Robustness Check

Endogeneity concerns coming from **reverse causality**:

- WB might reflect the decision to retire in the next period, if that decision is made during the current period.
- We address this problem by controlling for **early retirement intentions** in our models.

Table 3. Estimates of the probability of early retirement. Robustness test: early retirement intentions.

DV: Prob.(early retirement)	I		II		III	
	dy/dx	z	dy/dx	z	dy/dx	z
<i>Main independent variables</i>						
Self-employed t_{-1}	-0.047***	-5.03	-0.047***	-5.02	-0.041***	-4.32
Job satisfaction t_{-1}			-0.005	-1.30		
Life satisfaction t_{-1}					0.003	0.62
Early retirement intentions t_{-1}	0.037***	2.06	0.035***	6.04	0.038***	5.88
Demographic controls	Yes		Yes		Yes	
Employment controls	Yes		Yes		Yes	
Industry dummies	Yes		Yes		Yes	
Country dummies	Yes		Yes		Yes	
Wave dummies	Yes		Yes		Yes	
N	5,293		5,291		4,467	
<i>Predicted probability</i>	0.051		0.051		0.048	

- Negative association of *SE* and *ER* is **stable**, which **reinforces support for H1**.
- However, *ER* intentions capture the significance of *JS*.
- The significance of *JS* in table 2 was due to *ER* intentions.

The moderating role of WB: Interaction effects

Table A3. The role of well-being. Robustness test: early retirement intentions.

DV: Prob.(early retirement)	I		II	
	Coef.	z	Coef.	z
<i>Main independent variables</i>				
Self-employed _{t-1}	-3.851***	-2.78	-2.878*	-1.92
Job satisfaction _{t-1}	-0.224*	-1.74		
Job satisfaction _{t-1} * Self-employed _{t-1}	0.721*	1.84		
Life satisfaction _{t-1}			0.074	0.47
Life satisfaction _{t-1} * Self-employed _{t-1}			0.467	1.09
Early retirement intentions _{t-1}	1.034***	6.03	1.131***	5.54
Demographic controls	Yes		Yes	
Employment controls	Yes		Yes	
Industry, country and wave dummies	Yes		Yes	
N	5,291		4,454	
<i>Predicted probability</i>	0.051		0.048	

- The interaction between *SE* and *JS* is **positive and significant**.
- However, *LS* does not affect the probability of *ER* differently for *PE* and *SE*.
- Hence, we find **partial support for H2** (only WB at work has a differential effect).

Conclusion

Hypothesis that **SE are less likely** than **PE to retire early** is supported → (H1 ✓)

Well-being at work (**job satisfaction**) **differently** affects early retirement of *PE* and *SE*

However, overall well-being (**life satisfaction**) does **not**

} (H2 ⚠)

Contributions:

- First direct test of differences between *PE* and *SE* in terms of early retirement decisions.
- First empirical evidence of differential effects of well-being on early retirement of *PE* and *SE*.
- Differential effects mostly come from well-being at work (*JS*) instead of overall well-being (*LS*).

Potential Implications:

- Results may be useful for the design of effective **social and economic** measures focused on lengthening working lives.

Thanks a lot!
Looking forward to your suggestions

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