

Unexpected inheritances and labor supply: Evidence for adult couples in Europe

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Motivation

- Some authors have studied the impact of various shocks to the household economic environment on observable behaviors.
- Motivated by the 'Carnegie conjecture', a significant number of studies focuses on inheritances.
- After reasonable assumptions (e.g., inheritance expectations), the receipt of an inheritance may be assumed random and thus an unexpected variation in wealth.
- Within this context, it is important to study how such economic shocks affect household behaviors for an appropriate design of policies that target a specific household member.

Motivation

- Little attention has been devoted to addressing how inheritances affect household labor supply.
- Most of the literature about inheritances and labor supply focus on individual labor outcomes.
- They imprecisely relate data on inheritances receipt **at the household level** with **individual** labor (Eder, 2016; Doorley and Pestel, 2020; Tur-Sinai et al., 2022; Suari-Andreu, 2023) → *income pooling hypothesis*.
- However a significant amount of empirical research has rejected that hypothesis.
- Inheritances belong exclusively to the recipient, irrespective of the marital property regime, and we interpret the receipt of an inheritance as a distribution factor (Browning and Chiappori, 1998).

This paper

- We study the impact of unexpected inheritances on couples' labor supply in Europe.
- We use the Survey of Health, Ageing and Retirement in Europe (SHARE) and a sample of adult couples → the current ageing process suggests that a significant subset of the population is going to inherit.
- After controlling for the lagged (individual) inheritance expectation, the receipt of an inheritance is assumed to be unexpected.
- We identify the identity of the recipient within the household.
- We then relate own and spouse inheritance receipt with each partner's labor supply.

Objective and main contributions

- **RQs: How do inheritances affect the household labor supply behaviors? Does the identity of the inheritance recipient matter?**
- Our contribution:
 - 1 First study to examine the relationship between inheritances and *household* labor supply in Europe. The study closer to us is Blau and Goodstein (2016).
 - 2 We test the income pooling hypothesis by exploiting inheritances, complementing Blau and Goodstein (2016) in the US and Niizeki and Hori (2019) in Japan.

Data: The SHARE

- The SHARE is a representative cross-national household survey conducted in Europe every two years since 2004.
- The European equivalent to the HRS in the US or the ELSA in the United Kingdom.
- Target population: individuals aged 50 years old or over, and their partners regardless of age.
- Empirical application: 4 survey waves (2006-2015) and 13 European countries.

Sample and variables

- Sample selection:
 - married couples
 - ages 45-70
 - 2+ consecutive periods per couple
- 4,224 (heterosexual) couples, 10,117 observations (couples X waves)
- Inheritance questions:
 - *"[...], have you or your husband/wife/partner ever received a gift or inherited money, goods, or property worth more than 5,000 Euros?"*
 - *"In which year did you or your husband/wife/partner receive this gift or inheritance?"*
- To properly identify the recipient within the couple, we use:
 - *"From whom did you or your husband/wife/partner receive this gift or inheritance?"* → assignable individual wealth shock

Sample and variables

- Labor outcomes of interest:
 - LFP (1 if employed, self-employed or unemployed and looking for work, 0 other)
 - Annual hours of work at main job (*"Regardless of your basic contracted hours, how many hours a week do you usually work in this job, excluding meal breaks but including any paid or unpaid overtime?"*)
- To interpret the receipt of an inheritance as unexpected:
 - *"Thinking about the next ten years, what are the chances that you will receive any inheritance, including property and other valuables?"*. Potential answers: 0-100

Econometric strategy

$$Y_{it}^j = \alpha^j + \sum_{k=0}^1 (\beta_{1k}^j I_{it-k}^1 + \beta_{2k}^j I_{it-k}^2) + X_{it}^j \delta + \epsilon_{it}^j$$

- We use the OLS estimator to facilitate the results interpretation.
- 'i' denotes household, 'j' denotes spouse, 't' denotes survey year.
- Y_{it}^j is the LFP and annual hours of work of spouse 'j' in household 'i'.
- I_{it-k}^j takes value 1 if spouse 'j' in household 'i' receives an inheritance in period 't-k'.
- X_{it}^j are time-varying characteristics.
- Country and wave F.E., plus other baseline characteristics.

Main results, LFP

Table. Relationship between inheritances and household labor supply

	Husbands	Wives
<i>Inheritance recipient_t</i>		
Self	0.023 (0.018)	-0.053*** (0.020)
Spouse	-0.009 (0.020)	-0.013 (0.020)
Unknown	0.018 (0.033)	0.048* (0.026)
<i>Inheritance recipient_{t-1}</i>		
Self	0.005 (0.019)	0.017 (0.018)
Spouse	0.002 (0.020)	0.018 (0.016)
Unknown	-0.021 (0.034)	0.016 (0.031)
Observations	5,894	5,894
Couples	4,224	4,224

Notes: LPM estimates. Robust standard errors clustered at the household level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Main results, annual hours of work

Table. Relationship between inheritances and household labor supply

	Husbands	Wives
<i>Inheritance recipient_t</i>		
Self	-3.572 (36.317)	-63.225** (30.672)
Spouse	-44.124 (36.603)	5.732 (30.414)
Unknown	36.999 (65.203)	31.812 (45.706)
<i>Inheritance recipient_{t-1}</i>		
Self	-14.212 (37.333)	19.668 (27.995)
Spouse	96.423*** (34.576)	-8.795 (27.726)
Unknown	51.597 (67.222)	56.718 (45.209)
Observations	5,894	5,894
Couples	4,224	4,224

Notes: OLS estimates. Robust standard errors clustered at the household level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Unitary model

Table. Relationship between household inheritances and individual labor supply

	LFP		Annual hours of work	
	Husbands	Wives	Husbands	Wives
Household inheritance receipt _t	0.008 (0.014)	-0.026* (0.014)	-17.652 (26.757)	-21.830 (21.514)
Household inheritance receipt _{t-1}	-0.002 (0.014)	0.019 (0.013)	48.290* (26.216)	10.041 (19.734)
Observations	5,894	5,894	5,894	5,894
Couples	4,224	4,224	4,224	4,224

Notes: OLS estimates. Robust standard errors clustered at the household level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Full- and part-time status

Table. Relationship between inheritances and household labor supply

	Husbands			Wives		
	Self	Spouse	Unknown	Self	Spouse	Unknown
Full-time status	-0.007 (0.019)	-0.017 (0.021)	0.029 (0.034)	-0.029 (0.020)	-0.008 (0.018)	0.062* (0.033)
Part-time status	-0.013 (0.016)	0.030 (0.019)	0.006 (0.030)	-0.008 (0.019)	0.022 (0.019)	-0.042 (0.033)
Observations	5,894	5,894	5,894	5,894	5,894	5,894
Couples	4,224	4,224	4,224	4,224	4,224	4,224

Notes: LPM estimates. Robust standard errors clustered at the household level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Robustness and heterogeneity checks

- Similar results with other specifications:
 - ✓ Predicting hourly wages .
 - ✓ Excluding self-employed workers.
 - ✓ Controlling for different past inheritance expectations (Brown et al., 2010; Suari-Andreu, 2023).
 - ✓ Omitting inheritance expectations.
 - ✓ Individual FE estimates remain quantitatively similar, but are imprecisely estimated.
 - ✓ Including other DFs (spouses' age and education differences).
- We do not obtain any heterogeneity accounting for:
 - Households liquidity constrained $t-1$.

Conclusions

- We investigate the impact of inheritances on household labor supply in Europe. We focus on two indicators: LFP and working hours.
- We adopt a household perspective, against prior studies (Sila and Sousa, 2014; Eder, 2016; Doorley and Pestel, 2020; Malo and Sciulli, 2021 ; Tur-Sinai et al., 2022; Suari-Andreu, 2023).
- Our results complement existing research on the impact of wealth shocks on household labor supply behaviors (Blau and Goodstein, 2016; Cesarini et al., 2017; Belloc et al., 2023; Theloudis et al., 2023).

Conclusions

Our results indicate:

- Women decrease their LFP (5.3 p.p) and current hours of work (63 annual hours) due to the receipt of an inheritance.
- Consequently, inheritances discourage women from labor market, but not men (Blau and Kahn, 2007; Keane, 2011; Bargain et al., 2014).
- We reject the unitary model.
- **The identity of the recipient within the household matters.**

Limitations, policy implications and future research

- Policy implication: inheritances empower wives within households, and they reduce their LFP and working hours in Europe. This could help in the design of inheritance taxes.
- Limitations: no information about amount of inheritances (inheritances worth more than €5,000), limited panel dimension of the survey.
- Future research: examine the impact on other time horizons (medium- and long-run), on other TU, or the relationship between inheritance receipt and divorce.

Thank you for your attention!

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