

The Impact of Job Insecurity on the Saving Behavior of German Households

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- Research question:
Does job insecurity affect saving behavior in Germany?
- Contribution:
*Empirical test of precautionary saving theory
Identification of impact of job insecurity on saving,
and affected population groups*
- Findings:
*Job insecurity accounts for 3%-6% of (flow) saving
Most affected: richer, younger and 1-income households*

- Theory and surveys: very important saving motive

Possession of emergency savings
(GSOEP 2001, 2003, 2005, 2007)

	Share of households
Yes	68%
No, because of financial reasons	28%
No, because of other reasons	4%
Number of households	18,631

Note: Data weighted using cross-sectional weights of the GSOEP.
Source: GSOEP, own calculations

- Empirical evidence: very mixed (Browning and Lusardi 1996)

Job insecurity and saving in Germany

- Labor income is the main income source for most households
- Public unemployment insurance / social assistance
- Unemployment is a trigger of severe indebtedness (Keese 2009)
- But job insecurity is not a major saving motive in Germany (Essig 2005)

Very mixed empirical evidence

- Other saving determinants
- Risk measures
- Saving measures
- Insurance possibilities (public and private)
- Heterogeneity of households (income, wealth)

Data and sample

- 17 waves of the German Socio-Economic Panel from 1992 - 2008 (PanelWhiz-sourced)
- ~70,000 observations of ~12,000 households
 - For each household, only the main income earner is selected
 - Employees between 18 and 60 years old
 - Entrepreneurs and civil servants excluded
 - Households with very low or high income excluded

Do you usually have an amount of money left over at the end of the month that you can save for larger purchases, emergency expenses or to acquire wealth? If yes, how much?

- Focus on adaptation of saving behavior over time
- Measurement error present, but relevant funds for precautionary saving behavior

Job insecurity measure

What is your attitude toward the following areas - are you concerned about them? [...] Your job security? [answers:] very concerned, somewhat concerned, not concerned at all.

- Only subjective measures contain private forward-looking information
- Account for pure risk as well as for consequences of a job loss
- Alternatives: self-reported probability of a job loss, state unemployment rate

Econometric specification

- Linear fixed-effects model:

$$\ln S_{it} = \beta R_{it} + X'_{it}\gamma + \alpha_i + \epsilon_{it}$$

- Conditional fixed-effects logit model:

$$S_{it}^* = \beta R_{it} + X'_{it}\gamma + \alpha_i + \epsilon_{it} \text{ (latent variable specification);}$$

observation rule: $P(S_{it} > 0) = 1$ if $S_{it}^* > 0$ and $P(S_{it} > 0) = 0$ if $S_{it}^* \leq 0$

- S_{it} : saving, R_{it} : job insecurity
- X_{it} : personal, household, job, income and wealth characteristics
- α_i : individual specific error term, ϵ_{it} : general error term

Descriptive statistics by worries about job security (1/2)

Variable	Not worried about job security	Somewhat worried about job security	Very worried about job security
Able to save?	0.71	0.67	0.56
Saving (2007 EUR)	274	224	163
Saving rate	9.62	8.09	6.48
Job loss definitely not	0.52	0.19	0.12
Job loss improbable	0.44	0.63	0.35
Job loss probable	0.03	0.17	0.42
Job loss definitely	0.01	0.01	0.12
State unemployment rate	10.48	11.64	12.61
Income (2007 EUR)	2,714	2,590	2,327
Share in household income	0.73	0.72	0.71
Satisfaction with income	6.74	6.09	5.20
Annual asset income (2007 EUR)	1,329	985	577
Not worried about finances	0.47	0.11	0.02
Worried about finances	0.46	0.72	0.36
Very worried about finances	0.07	0.18	0.61
Interest rate	4.37	3.99	3.91
Real GDP growth	1.55	1.79	2.05

Note: Pooled data from 1992 - 2008, weighted using cross-sectional weights of the GSOEP.

Source: GSOEP, own calculations

Descriptive statistics by worries about job security (2/2)

Variable	Not worried about job security	Somewhat worried about job security	Very worried about job security
Female	0.34	0.29	0.32
German	0.92	0.91	0.88
Age	41.30	41.30	42.06
Younger than 30	0.16	0.13	0.12
Older than 50	0.25	0.20	0.23
Married	0.56	0.60	0.60
Satisfaction with health	7.19	6.80	6.23
Years of education	12.20	12.03	11.61
Unemployment experience	0.34	0.46	0.65
Easy to find new job	0.29	0.12	0.06
Single household	0.33	0.29	0.29
1-income household	0.35	0.37	0.36
2-income household	0.32	0.34	0.35
Household size	2.47	2.66	2.67
Children	0.35	0.41	0.42
Infants	0.13	0.13	0.12
Change in household	0.20	0.18	0.18
Homeowner	0.39	0.39	0.32
Observations	26,668	30,870	12,179

Note: Pooled data from 1992 - 2008, weighted using cross-sectional weights of the GSOEP.

Source: GSOEP, own calculations

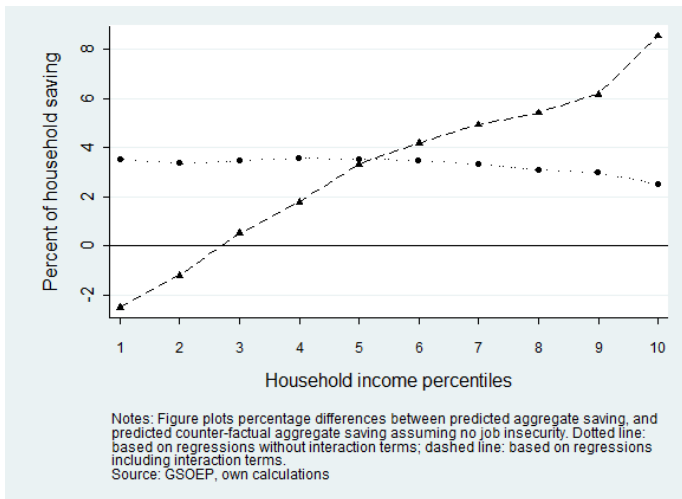
Regression results (selected variables)

	Job worries		Job loss probability		Unemployment rate	
	(1)	(2)	(3)	(4)	(5)	(6)
	FE Logit	Linear FE	FE Logit	Linear FE	FE Logit	Linear FE
Worried - job loss	1.099***	0.053**	-	-	-	-
Very worried - job loss	1.138***	0.098***	-	-	-	-
Job loss improbable	-	-	1.055	0.039	-	-
Job loss probable	-	-	1.142**	0.086*	-	-
Job loss definitely	-	-	1.156	0.164*	-	-
Unemployment rate	-	-	-	-	1.018*	0.016**
Log household income	7.747***	2.064***	6.966***	2.051***	7.779***	2.067***
Worried - finances	0.709***	-0.224***	0.778***	-0.179***	0.727***	-0.209***
Very worried - finances	0.537***	-0.458***	0.579***	-0.413***	0.560***	-0.428***
Interest rate	1.021*	0.017**	1.032*	0.031***	1.033**	0.028***
Pseudo/Within R2	0.09	0.10	0.11	0.10	0.09	0.10
Observations	41,618	64,188	17,284	33,791	41,618	64,188
Households	5,199	9,983	3,417	9,212	5,199	9,983

Notes: Columns (1), (3) and (5) report odds ratios from fixed-effects logit regressions for having a positive amount of saving, columns (2), (4) and (6) coefficients from linear fixed-effects regressions for the log of monthly saving incl. only households that report positive saving at least once, std. errors in parentheses. Reference categories: not worried about job security, definitely no job loss. Significance levels: *10% **5% ***1%

Source: GSOEP, own calculations

Interacting job insecurity and household income



Fraction of saving motivated by job insecurity

Sample	Observations	Job worries Percent	Job loss probability Percent	Unemployment rate Percent
All households	64,188	3.0	3.2	7.9
All households (incl. interactions)	64,188	5.7	4.9	11.4
Single households	13,664	0.9	0.4	15.4
1-income households	23,658	3.9	0.8	2.6
2-income households	26,866	1.9	2.9	4.1
Young households	8,193	5.8	7.7	0.5
Middle-aged households	41,716	3.7	2.3	11.5
Old households	14,279	-1.2	2.5	-4.9

Notes: Table reports percentage differences in aggregate monthly household saving between the predicted sum of saving from fixed-effects regressions, and the counter-factual sum of saving without job insecurity. Bold font denotes significance of job insecurity coefficients in the underlying regressions.

Source: GSOEP, own calculations

Conclusion

- Job insecurity accounts for 3%-6% (EUR 2-3 billion) of annual saving of the working population
 - Lower bound of all precautionary saving and wealth
 - Aggregate saving: EUR 178.5 billion (2008)
 - Public unemployment insurance contributions: EUR 26.5 billion (2008)
- Most affected households: richer, younger, only 1 income
- Policy implications (increasing job insecurity, tighter public budgets)
 - Support acquisition of buffer-stock wealth
 - Negative incentive effects of means-tested benefits
 - Job insecurity (slightly) reduces consumption