

Job Loss Expectations, Durable Consumption and Household Finances Evidence from Linked Survey Data

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Research Question

1. How predictive are job loss expectations of workers?
2. Do job loss expectations affect car acquisitions and savings?

Wording question job loss expectations:

"Do you think that there is any chance that you might lose your job in the coming 12 months?"

You can indicate this in terms of a percentage. 0% means that you are sure that you will not lose your job, and 100% means that you are sure that you will lose your job."

Motivation

1. **Economics** - Even if unemployment does not increase, higher job loss expectations could affect durables and precautionary savings, creating a "deep" recession (Ravn and Sterk, JME 2017)
2. **Measurement** - predictive power of expectations is typically measured in the same survey (Stephens, RESTAT 2004; Hendren, AER 2017)
 - ▶ Issues of panel attrition, imperfect recall and stigma to report unemployment
 - ▶ Measurement error of the dependent variable (lost job 0/1) induces downward biased coefficients (Hausman, Abrevaya and Scott-Morton, JEctrics 1998; Meyer and Mittag, JEctrics 2017)

Literature

1 Predictive power of expectations

- ▶ Older workers in the US (HRS) predict personal unemployment well (Stephens, RESTAT 2004; Hendren, AER 2017)
- ▶ Related to literature on income expectations and realizations (Dominitz and Manski, JASA 1997; Dominitz, JEcTrics 2001)

2 Job loss expectations and consumption

- ▶ Mixed evidence for food spending in the HRS (Stephens, RESTAT 2004)
- ▶ Mixed evidence for household savings in Germany (Klemm, 2012)

Literature (2)

3 Consumption and financial portfolios of the unemployed

- ▶ Consumption (spending) falls the year **prior** to unemployment in the PSID (Gruber, AER 1997; Hendren, AER 2017)
- ▶ Similar finding for the UK (Benito, Oxford EcPap, 2006)
- ▶ Unemployed are more likely to postpone smaller durables, e.g. clothing (Browning and Crossley, JEEA 2009)
- ▶ In Norway unemployed increase savings and safe assets the year prior to unemployment (Basten, Fagereng and Telle, JMCB 2016)

Taken together suggests that workers have some private information of pending job loss (Hendren, AER 2017)

Our contribution: give a more complete picture with labor market outcomes, savings and portfolio choice

Institutional Setting

Labor market in The Netherlands

- ▶ 7 million workers employed (2010-2016)
- ▶ Unemployment rate: 5.0-7.4%
- ▶ Workers with flexible contract: 21-26%
- ▶ Difference between flexible and permanent contracts: employment protection

Institutional Setting (2)

Unemployment insurance

- ▶ Universal: all workers are covered
- ▶ Entitlement
 - ▶ no wrongful or own termination, available for work, search requirement (monitored + sanctions)
 - ▶ it depends on length of employment prior to spell
- ▶ Replacement rate is 70% of average earnings in the 12 months prior (and 75% for the first 2 months)

Data

1 Survey

- ▶ Two representative household panels for the Netherlands: DHS and LISS
- ▶ Longitudinal: 2008-2018
- ▶ Similar job loss questions for the currently employed

Job Loss Expectations: Descriptives

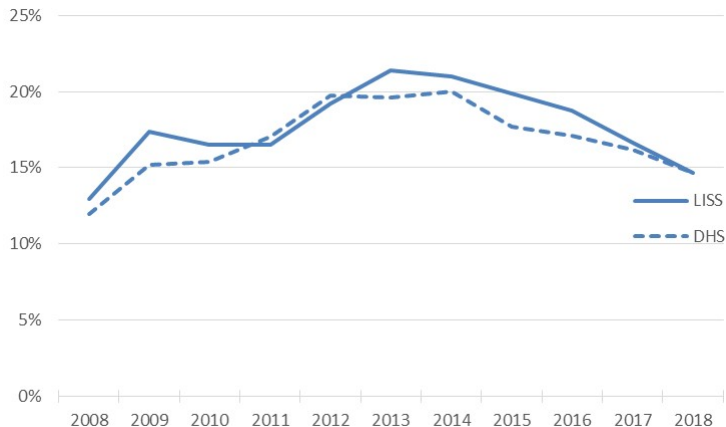


Figure: Cross-sectional average of job loss expectations for the core module of the LISS and the DHS in each year

Job Loss Expectations: Descriptives (2)

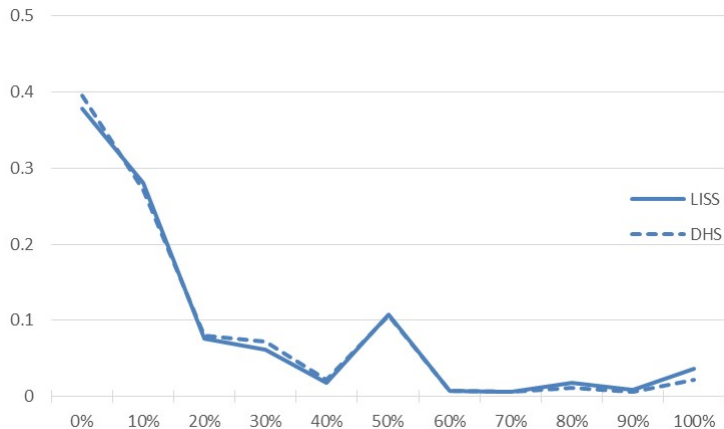


Figure: Histogram of job loss expectations for each survey pooled over all years

2 Administrative (Statistics Netherlands)

- ▶ Monthly payroll data for the universe of firms (public and private)
- ▶ Monthly car acquisitions (universe of car registrations)
- ▶ Annual household assets and liabilities: deposits, stocks + bonds, net worth

1+2 Linking (2010-2016)

- ▶ 85% gives consent to be linked
- ▶ Anonymous identifiers, output is checked for disclosure

Labor Market Flows

Transition		
No change in 12 months (baseline)	78.1%	
Any job loss	21.9%	100%
New job, <i>same</i> firm	3.8%	17%
New job, <i>new</i> firm	6.7%	31%
Unemployed	3.8%	17%
Other job loss	7.6%	35%

- ▶ Job loss defined as loss of contract
- ▶ Unemployed defined as collecting unemployment benefits
- ▶ Transitions into self-employment or retirement are excluded

Roadmap to Results

1. **How predictive are job loss expectations of workers?**
2. Do job loss expectations affect car acquisitions?
3. Do job loss expectations affect savings?

Linear Predictions - Unconditional

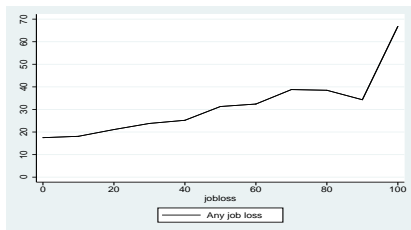


Figure: Any Job Loss

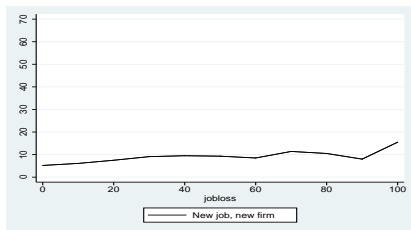


Figure: New Job, New Firm

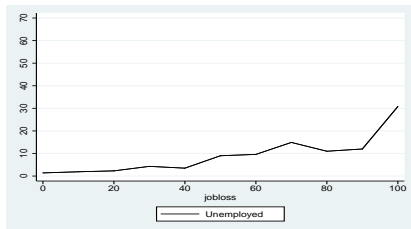


Figure: Unemployed

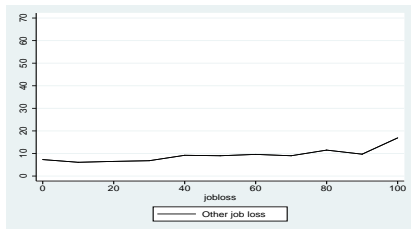


Figure: Other Job Loss

Marginal Effects after Probit (x100%)

	Lost Job	New Job Same Firm	New Job New Firm	Unemployed	Other Job Loss
	(1)	(2)	(3)	(4)	(5)
Job loss expectation [0-100]	0.89*** (0.0)	0.05 (0.1)	0.54*** (0.1)	1.46*** (0.1)	0.21*** (0.1)
p-value industry	0.000	0.001	0.000	0.000	0.000
Mean dependent variable	0.220	0.039	0.068	0.039	0.078
N households	6,140	6,029	6,089	5,983	6,048
N observations	19,628	19,163	19,461	19,003	19,217

Marginal effect: 1%-point increase in job loss expectations is associated with a 0.89 pp increase in the probability of any job loss.

Plotted Regression Coefficients

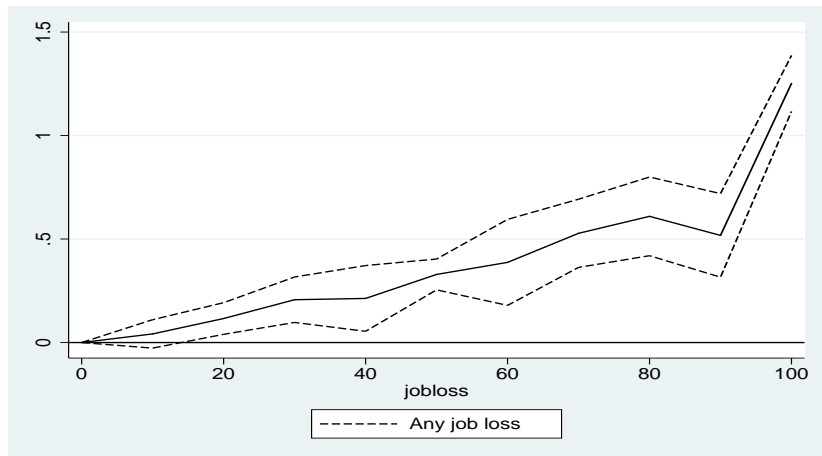


Figure: Any Job Loss

Plotted Regression Coefficients (2)

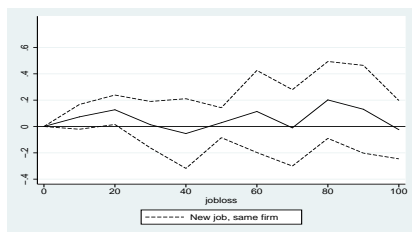


Figure: New Job, same Firm

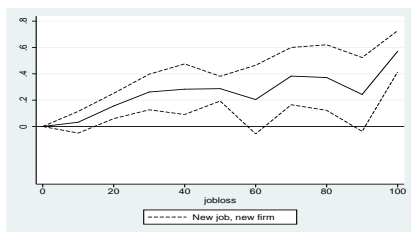


Figure: New Job, New Firm

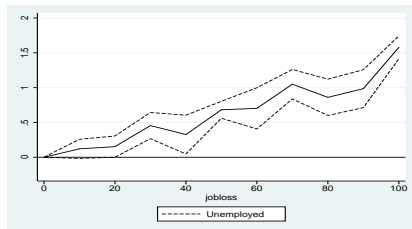


Figure: Unemployed

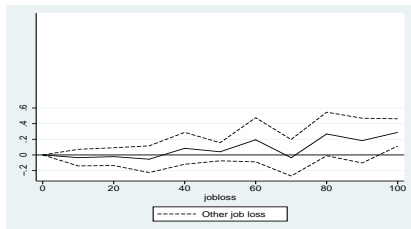


Figure: Other Job Loss

Roadmap to Results

1. How predictive are job loss expectations of workers?
2. **Do job loss expectations affect car acquisitions?**
3. Do job loss expectations affect savings?

Car Acquisitions

	Buy any Car (1)	ln(value car) (2)	Buy any Car (3)	ln(value car) (4)
Job loss expectation	0.017 (0.059)	-1.793* (1.040)		
Probability job loss [21-40]			0.047 (0.044)	0.369 (0.824)
Probability job loss [41-60]			-0.028 (0.044)	-1.581** (0.805)
Probability job loss [61-80]			-0.047 (0.092)	-2.564 (1.701)
Probability job loss [81-100]			0.114 (0.073)	0.193 (1.359)
Controls	Yes	Yes	Yes	Yes
Time Effects	Yes	Yes	Yes	Yes
Mean dependent variable	0.105	0.573	0.105	0.573
N households	6,047	6,051	6,047	6,051
N observations	18,865	18,890	18,865	18,890

Car Acquisitions - Type of Car

	Old Car (1)	New Car (2)	Old Car (3)	New Car (4)
Job loss expectation	0.095 (0.061)	-0.283** (0.113)		
Probability job loss [21-40]			0.071 (0.047)	-0.062 (0.084)
Probability job loss [41-60]			0.028 (0.044)	-0.254** (0.099)
Probability job loss [61-80]			0.009 (0.097)	-0.219 (0.176)
Probability job loss [81-100]			0.170** (0.076)	-0.147 (0.143)
Controls	Yes	Yes	Yes	Yes
Time Effects	Yes	Yes	Yes	Yes
Mean dependent variable	0.087	0.019	0.087	0.019
N households	6,046	5,970	6,046	5,970
N observations	18,858	18,268	18,858	18,268

Taking stock: Car Acquisitions

1. Higher job loss expectations are negatively correlated with car value of acquired car
2. Higher job loss expectations are negatively correlated with probability of acquiring **new** cars

Car Purchases - Expectation Errors

	Buy Car (1)	ln(value car) (2)	Buy Car (3)	ln(value car) (4)
Expectation error	-0.067** (0.032)	-1.086* (0.574)		
Positive error values			-0.030 (0.076)	-3.662*** (1.338)
Negative error values			0.084** (0.043)	-0.025 (0.775)
Controls	Yes	Yes	Yes	Yes
Time Effects	Yes	Yes	Yes	Yes
Mean dependent variable	0.105	0.573	0.105	0.573
N households	6,047	6,051	6,047	6,051
N observations	18,865	18,890	18,865	18,890

Expectation error: job loss expectation - any realization 0,100.
Negative expectation errors multiplied by -1)

Car Acquisitions - Type of Car

	Old Car (1)	New Car (2)	Old Car (3)	New Car (4)
Expectation error	-0.050 (0.034)	-0.067 (0.056)		
Positive error values			0.037 (0.080)	-0.240* (0.136)
Negative error values			0.088** (0.045)	-0.004 (0.079)
Controls	Yes	Yes	Yes	Yes
Time Effects	Yes	Yes	Yes	Yes
Mean dependent variable	0.087	0.019	0.087	0.019
N households	6,046	5,970	6,046	5,970
N observations	18,858	18,268	18,858	18,268

Taking Stock: Car Acquisitions

1. Higher job loss expectations are negatively correlated with car value of acquired car
2. Higher job loss expectations are negatively correlated with probability of acquiring **new** cars
3. Higher expectation errors negatively correlated with car acquisitions
 - ▶ Driven by **negative** expectation errors and **probability** of acquisition (used) cars
 - ▶ Driven by **positive** expectation errors and **value** (and **propensity** of new cars)

Roadmap to Results

1. How predictive are job loss expectations of workers?
2. Do job loss expectations affect car acquisitions?
3. **Do job loss expectations affect savings?**

Savings and Financial Wealth Holdings - Flows

	Savings (1)	Stocks (2)	Financial Wealth (3)	Savings (4)	Stocks (5)	Financial Wealth (6)
Job loss expectation	7.969*** (2.913)	-0.047 (0.784)	6.763** (3.052)			
Probability job loss [21-40]				109.9 (223.0)	-147.6** (67.6)	-28.9 (247.5)
Probability job loss [41-60]				497.6** (204.6)	-4.7 (54.2)	528.2** (214.4)
Probability job loss [61-80]				567.6 (435.5)	126.7 (118.0)	736.1* (435.5)
Probability job loss [81-100]				581.3 (408.5)	-55.9 (103.2)	180.7 (438.4)
Adjusted R-squared	0.024	0.021	0.030	0.024	0.021	0.030
Mean dependent variable	417.800	85.501	518.427	417.800	85.501	518.427
N households		4,347			4,347	
N observations		13,033			13,033	

Savings and Wealth Holdings - End-of-Year

	Savings (1)	Stocks (2)	Financial Wealth (3)	Savings (4)	Stocks (5)	Financial Wealth (6)
Job loss expectation	0.048*** (0.014)	0.009 (0.007)	0.056*** (0.019)			
Probability job loss [21-40]				2.388** (0.972)	-0.755* (0.400)	1.542 (1.207)
Probability job loss [41-60]				2.333** (1.009)	-0.084 (0.424)	2.263* (1.255)
Probability job loss [61-80]				1.878 (1.613)	0.040 (0.704)	1.917 (2.010)
Probability job loss [81-100]				3.839** (1.820)	1.642* (0.996)	5.271** (2.481)
Adjusted R-squared	0.253	0.093	0.250	0.253	0.094	0.249
Mean dependent variable	20.466	4.250	25.505	20.466	4.250	25.505
N households		4,347			4,347	
N observations		13,033			13,033	

Taking Stock: Household Finances

1. Higher job loss expectations are positively correlated with savings flows (change in deposits)
2. Higher job loss expectations are negatively correlated with changes in risky assets (though not statistically significant)
3. Financial portfolios at the end of the year are tilted towards savings
4. Corroborates findings of Basten, Fagereng and Telle (JMFB 2016) for household finances of **actual** unemployed

Conclusions

1. Predictive power

- ▶ Using linked administrative data we find that workers predict very well transitions into unemployment and firm-to-firm transitions.
- ▶ Suggests that workers adjust search effort and/or desired wages

2. Car acquisitions

- ▶ Find that higher job loss expectations are related to smaller propensities to buy cars, especially new cars

3. Household finances

- ▶ Higher job loss expectations are related to larger inflows in deposits
- ▶ Some evidence for rebalancing of financial portfolio into deposits

Thank you for your time!

Any comments welcome at
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