Cutting one's coat according to one's cloth

How did the great recession affect retirement resources and expenditure goals?

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November 2016

Dutch pension system

- Flat-rate **public pension**
  - → 65+ poverty rate of 2% (OECD, 2015)
- Mandatory DB **occupational pensions**
  - → Over 90% of employees enrolled
- Other **private pensions** & **private savings/housing wealth**
- Net replacement rate 95.7% (OECD average: 63.2%, OECD, 2015)
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    - → Increase eligibility age for public pensions (67 in 2021, then linked to life expectancy)
    - → Restrictions on tax exempt private pension accumulation
- Private pension funds financially unfit
    - → Cuts in accrued rights (on average 7.3% in real terms)
- Reduced ability to compensate with private assets
    - → Disappointing returns
    - → Large decline in housing prices
- **Unanticipated** decline in pension wealth
    - 2007: **7** pension funds had reserve deficit; average coverage **144%**
    - 2008: **300** pension funds had reserve deficit; average coverage **96%**

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  - Banks et al. (2012): expected bequests tied to housing wealth
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- Adapt **current behavior**
  - Christelis et al. (2015): 0.6% drop in HH expenditures for 10% loss in housing wealth
- Adapt **plans for future behavior**
  - Delay planned retirement age?
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- Research question:
  - What is the effect of an unanticipated wealth shock on pension expenditure goals?
- Contributions:
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Sneak peak at results

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Roadmap

Empirical strategy

1. Overall changes

- Aim: show how wealth and consumption floors changed
- Problem: incomplete data linkage and selective non-response in 2008
- Solution:
  - Perform SUR on consumption floors and annuities in both years
  - Use estimates to simulate consumption floors and annuities

2. Changes at group level

- Aim: investigate whether groups that were hit also revised goals
- How: compare differences in SUR estimates for 2014 and 2008 for annuities and consumption floors

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- Aim: differentiate between effect of individual wealth decline or overall worsening of expectations
- How: fixed effects on overlapping sample

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- **Survey data**: LISS panel (CentER Data)
  - Representative for Dutch population
  - Pension goals elicited in 2008 and 2014
  - Information on non-taxed private pension entitlements
  - Background variables: employment, marital status, age etc.
- Administrative data (Statistics Netherlands)
  - Public pension entitlements (2008, 2012, provided by SVB)
  - Occupational pension entitlements (2008, 2012, provided by pension funds)
  - Wealth records (2008, 2013, provided by tax office and banks)
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Eliciting retirement consumption floors

Survey question:
What is the minimal level of monthly spending that you would never want to fall below during retirement, at all costs? Please think of all your expenditures, such as food, clothing, housing, insurance, etc.
(Binswanger & Schunk, 2012)

- 2008 IQR: 56%-90% of current income (De Bresser & Knoef, 2015)
- People find the question difficult, but give consistent answers
  - Young vs. old
  - Those who find it difficult vs. those who do not

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Descriptive statistics

	year	N	Mean	SD	p25	Mdn	p75
a. Self-assessed minimum retirement expenditures							
Minimum monthly expenditures	2008	1,396	1,744	733	1,218	1,625	2,031
	2014	2,755	1,495	570	1,095	1,460	1,825
Min. exp./current income (%)	2008	1,396	76	28	57	75	91
	2014	2,717	67	29	47	63	80
b. Annuities							
Pensions	2008	900	2,163	728	1,649	2,122	2,551
	2014	3,646	1,747	748	1,343	1,675	2,072
Pensions + wealth	2008	890	2,393	955	1,795	2,262	2,790
	2014	3,429	2,062	1,437	1,473	1,847	2,357
Pensions + wealth + housing	2008	890	3,267	1,630	2,263	3,119	3,924
	2014	3,429	2,740	1,936	1,703	2,423	3,207

Amounts are equivalized to a one-person household and denoted in 2014 euros.

Figure: Fraction of population with annuity < consumption floor

Results 2: changes at group level

	Annuities	Consumption floors

Legend: ● Pensions ○ All wealth ■ Cons. floor men □ Cons. floor women

x-axis: %–points

Rows: Log(HH inc.), Log(pers. inc.), Homeowner, Single, Female*single, Divorced, Female*divorced, Widowed, Never married
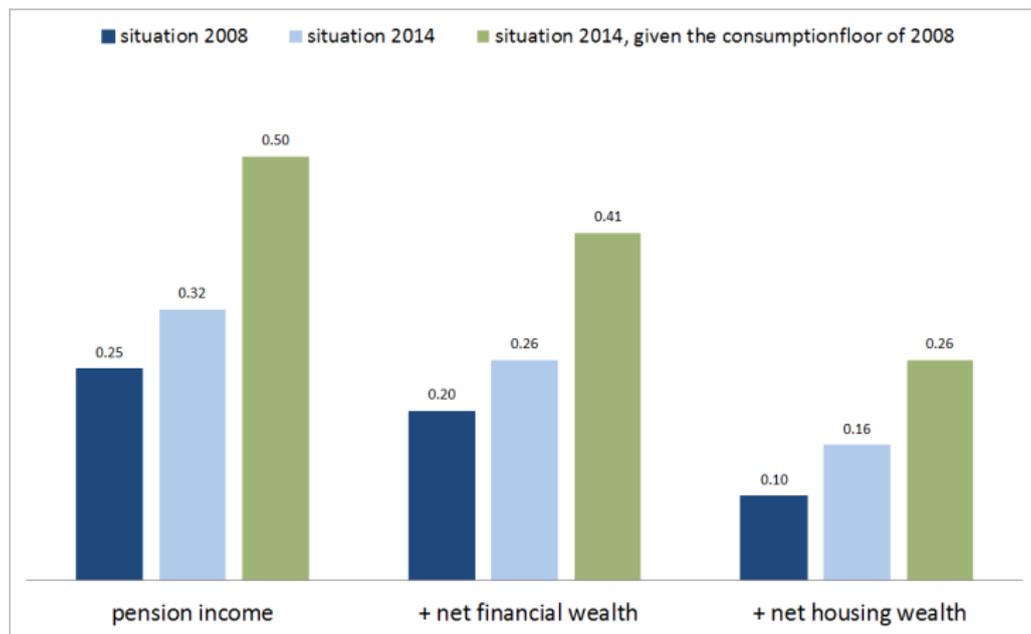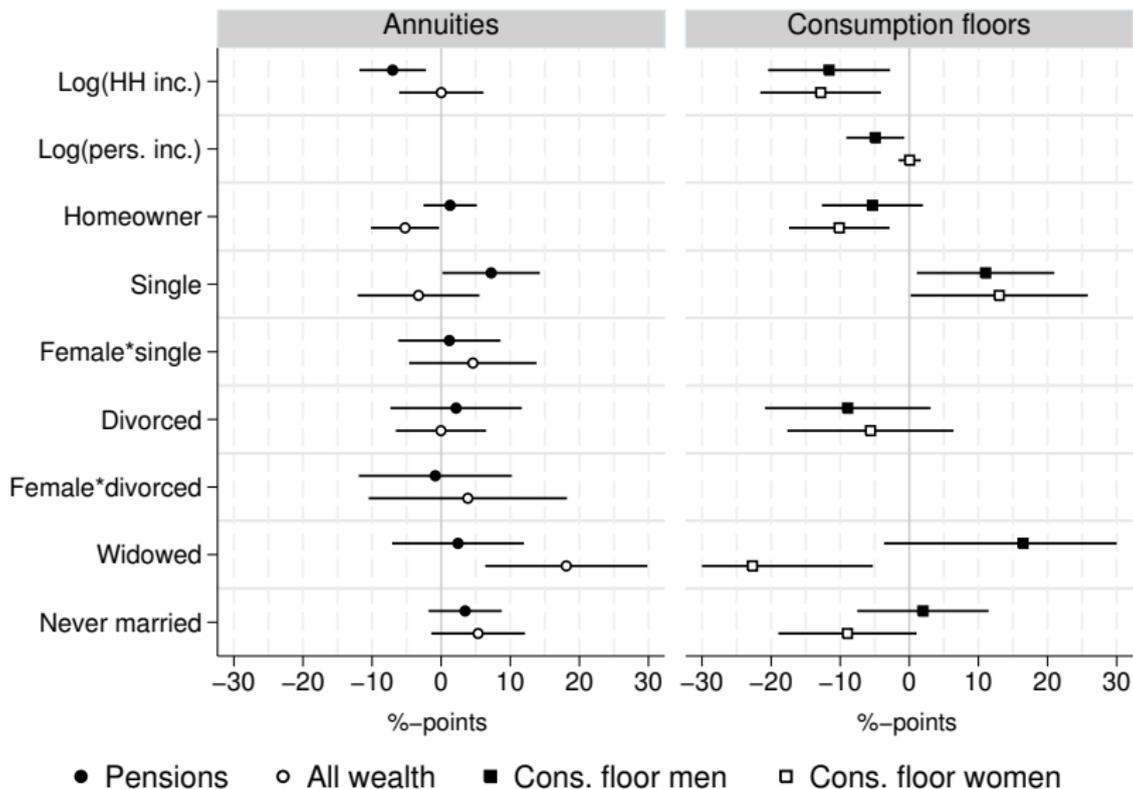
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	Annuities	Consumption floors
1 salary worker		
All salary workers		
1 in family business		
All in family business		
1 self–employed		
All self–employed		
1 Retired		
All retired		
1 Disabled		
All disabled		
Homekeeper		
Other		

%–points
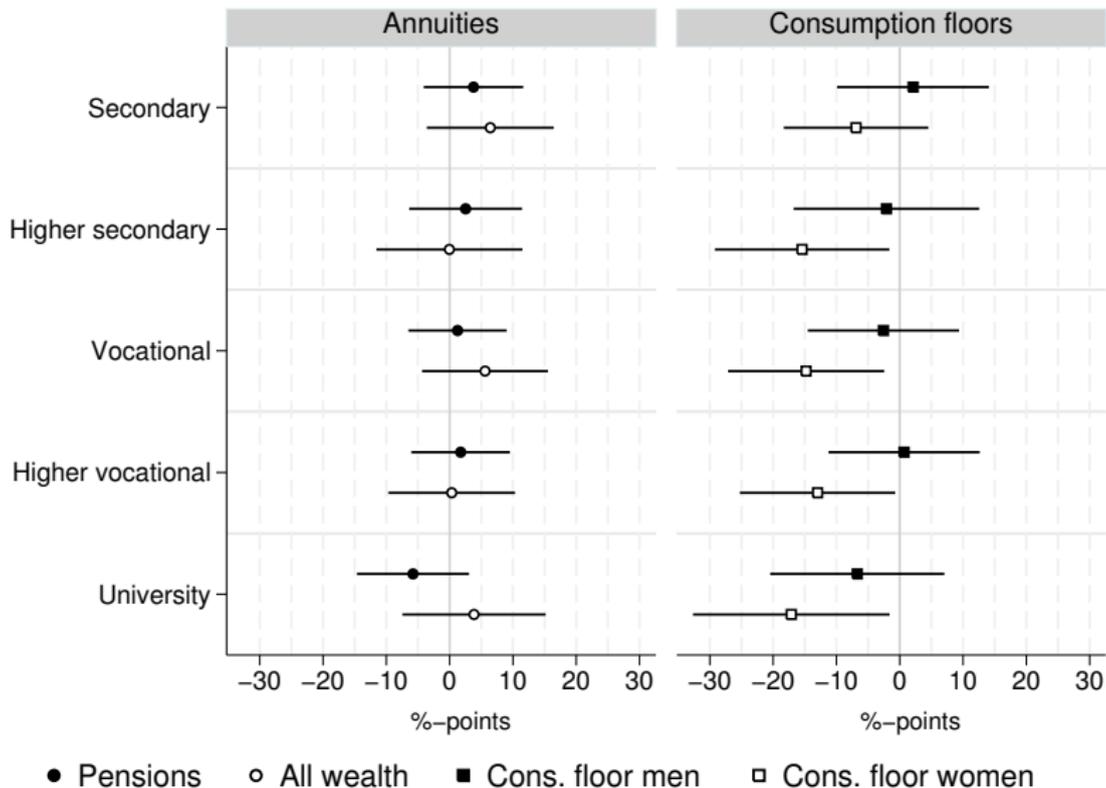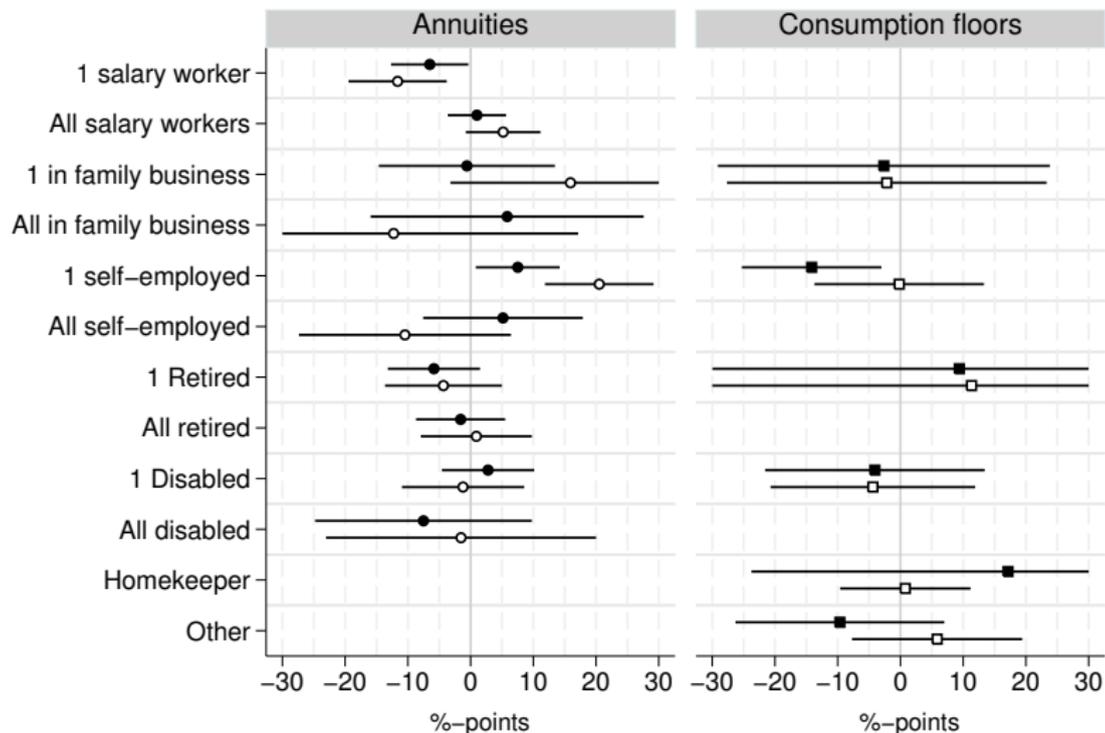
• Pensions   ○ All wealth   ■ Cons. floor men   □ Cons. floor women

Results 3: individual-level longitudinal changes

	Dep. variable: consumption floor		
Annuity from pensions	0.374***	0.341***	-0.139
	(0.102)	(0.113)	(0.195)
Annuity from real estate	0.0390	0.0730	0.0282
	(0.0399)	(0.0472)	(0.0353)
Dummy 2014			-0.181***
			(0.0494)
Other controls	No	Yes	Yes
Within R-squared	0.08	0.24	0.30
number HHs	1,295	1,278	1,278
n (individuals)	1,552	1,531	1,531
N (total obs.)	1,727	1,703	1,703

***significant at 1%

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Are the Dutch still adequately prepared for retirement?

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- How can we get most out of the data, given the small amount of overlap in waves?
- Sensitivity analysis including variable describing income expectations

Error correlations

	Annuity 2008	Min exp. men 2008	Min exp. women 2008	Selection (annuity 2008)	Annuity 2014	Min exp. men 2014	Min exp. women 2014
a. Annuities from pensions							
Annuity 2008	1						
Min exp. men 2008	0.207***	1					
Min exp. women 2008	0.222***	0.479***	1				
Selection (annuity 2008)	0.165	-0.036	-0.071	1			
Annuity 2014	0.598***	0.059	0.075	0.205***	1		
Min exp. men 2014	0.160***	0.359***	0.020	0.111*	0.155***	1	
Min exp. women 2014	0.115**	0.202**	0.366***	0.099	0.151***	0.506***	1

*significant at 10%; **significant at 5%; ***significant at 1%