



# The Power of Percentage: Quantitative Framing of Pension Income

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# Brief summary I

- Investigate whether there is an effect of the quantitative frame used on the level of satisfaction of plan members of their projected future pension income
- Allocated respondents randomly to one of four conditions
  - Gross **annual** pension income
  - Gross **monthly** pension income
  - Pension income as a **percentage** of current income
  - Pension income as a **fraction** of current income
  - In all frames: projected pension income is 50% of current income



# Brief summary II

## Data:

- Survey among participants of CentER panel
- Individual income projections based on DNB Household Survey income data

## Results:

Expressing projected pension income as a **percentage** of current income significantly increases the probability that a plan member perceives the pension income as *too low*

Note: too low should be the correct answer as 50% of current income may be insufficient.



# Background

- Dutch law on Pension communication 2015
  - Basic information about pension arrangement
  - Information about financial status of their pension
- Nell (2017, chapter 6): distills functions from the guiding documents about pension information
  - One of the guiding functions:  
*“Pension plan members know whether their expected pension income is sufficient”*



# Background

*“Pension plan members know whether their expected pension income is sufficient”*

*Know*

- ...what amount they have accrued so far
- ...what amount they can expect
- ...how much pension they need after retirement
  - Requires assessing future expenses
  - Requires knowing family situation upon retirement
  - Requires having clear idea of future plans => *insufficiently addressed in current pension information package => guiding function cannot be realized*



# Methodology

Please indicate to what degree you regard this pension income sufficient or insufficient to be able to make a living. Please do not take your partner's income into account.

- More than sufficient
- Sufficient
- Insufficient
- Very insufficient
- Do not know

- Change order of scale? (randomize between sufficient->insufficient and insufficient->sufficient)



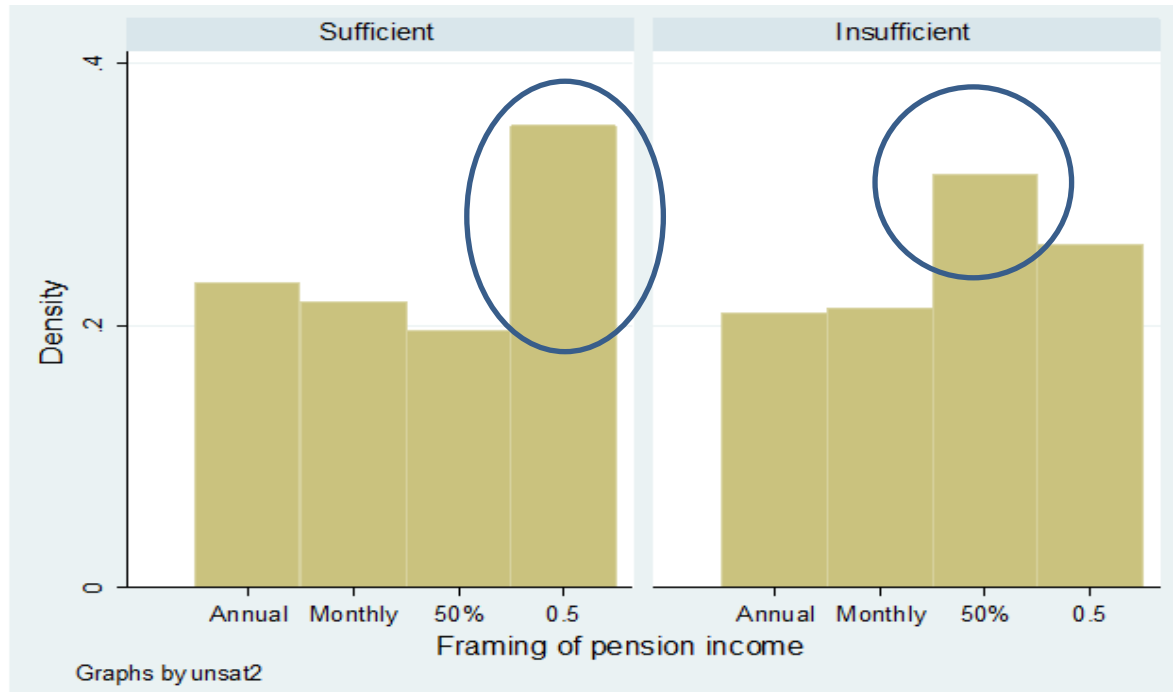
# Methodology (minor)

- Just to make sure: conditions 2-4 per month?
- Annual income contains vacation money
- “...panel members in this condition [annual income] received therefore a higher projection than the other three categories...” (p.8)
- Is this a problem? Underestimate (less people recognize this amount as insufficient)?



# Results: general findings

- Interesting result you don't discuss: participants with the fraction condition indicate most often that their projected pension income is sufficient (figure 1)







# Results: general findings (minor)

- What is the function of table 6?
  - Why compare fraction frame to all others? Typo?

**Table 6 “Focused” variables – used in the regressions of Section 5**  
 Projected pension income framed as replacement rate as fraction of gross income vs any other frames  
 Perceived adequacy of pension income: (very) unsatisfactory vs (very) satisfactory

Perceived adequacy of pension income	Projected pension income		Total
	Replacement rate as fraction	Any other frame	
(Very) Unsatisfactory	81.57	70.18	73.40
(Very) Satisfactory	18.43	29.82	26.54
Total	100	100	

Pearson  $\chi^2(1) = 13.96$  Pr = 0.000

*Source: constructed by the authors based on CentER panel data*



## Results: regression analysis

- Your main independent variable is percentage frame (=1) (relative to all others=0)
- Why didn't you use a more flexible specification including dummies for all (but one) condition?



# Conclusions

*“in the end, pension is not about euros, but about consumption”* => I definitely agree

- This explains why the first conditions do a relatively poor job
- How about fractions though? Any idea/explanations for this?



## All in all

- A very interesting paper on a relevant topic
- Striking that % frame does a much better job than fractions
- Even if the projected pension is presented in percentages, will people still **know** how much pension they actually need? Maybe something to think about?
- Looking very much forward to the next version!



# Thank you!

