DOES RECKLESS RISK OR CAREFUL PLANNING MAKE HOUSEHOLDS WEALTHY?

A Study of the US Based on the Luxembourg Wealth Study Database

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ABSTRACT

In this article I study how financial risk taking and planning of US households affect their probability to have a higher position in wealth distribution between 1995 and 2016. To this end, I analyze the Luxembourg Wealth Study data by means of ordered logit models. My analysis shows that above average financial risk taking and long planning horizons (over ten years) are the most beneficial for household wealth. Comparing them with other characteristics, I find that age, education, and income of the household head exert considerably stronger positive effect on wealth. However, both higher risk and long planning horizons do pay off.

HYPOTHESES

01 Higher willingness to take financial risk increases the probability of households to be in a higher wealth quartile group

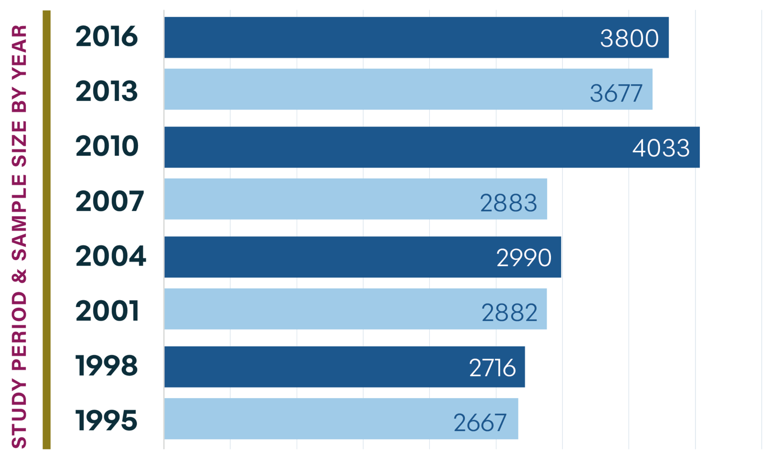
02 A longer financial planning horizon increases the probability of households to be in a higher wealth quartile group

03 The effect of willingness to take financial risk on the probability of households to be in a higher wealth quartile group is different for every group

04 The effect of a longer financial planning horizon on the probability of households to be in a higher wealth quartile group is different for every group

DATA

Luxembourg WEALTH STUDY



Multiply imputed data

Replicate weights applied

DEPENDENT VARIABLE - DISPOSABLE NET WORTH QUARTILE GROUPS:

Poor | Lower-middle class | Upper-middle class | Rich

FINANCIAL RISK:

- Substantial
- Above average
- Average

FINANCIAL PLANNING:

- Over 10 years
- Next 5-10 years
- Next Year
- Up to 5 years

+11 control variables

METHOD

Ordered logit model:

$$P(Y_i > j) = \frac{exp(\alpha_j + X_i\beta_j)}{1+exp(\alpha_j + X_i\beta_j)},\ j = 1, 2, \dots, M-1$$

Parallel-lines assumption test

$$H0 : \beta_1 = \beta_2 = \dots = \beta_{(M-1)}$$

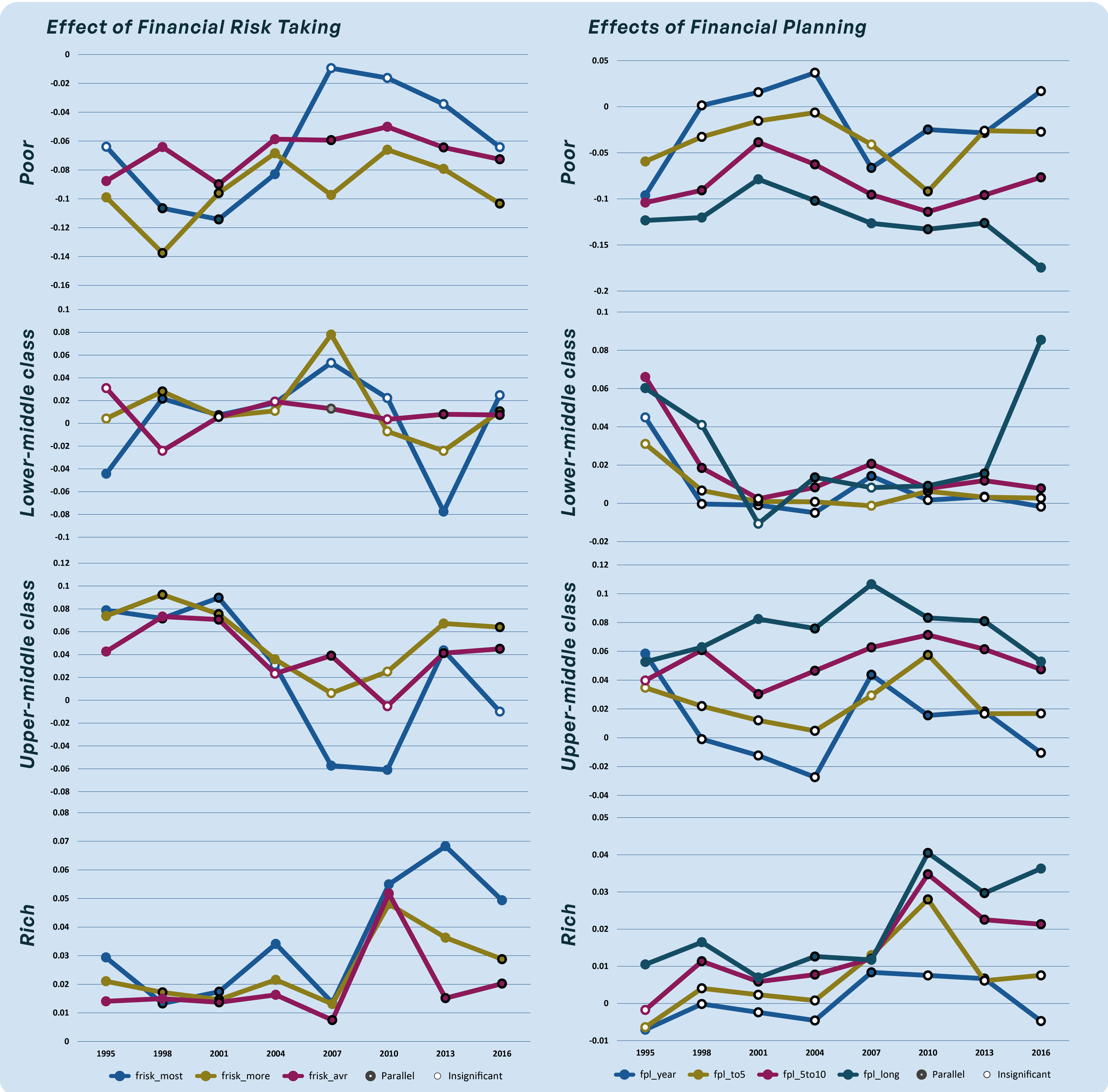
Y_i - net disposable wealth of a household; X_j - vector of household characteristics; β_j - vector of regression coefficients; α_j - intercept; M - number of categories of ordinal variable

Multicollinearity test → Wald test for parallel lines → (β) Proportional odds model; (β_j) Generalized ordered logit → Automatic Selection procedure → Partial proportional odds model → Rubin's rules to Pool results

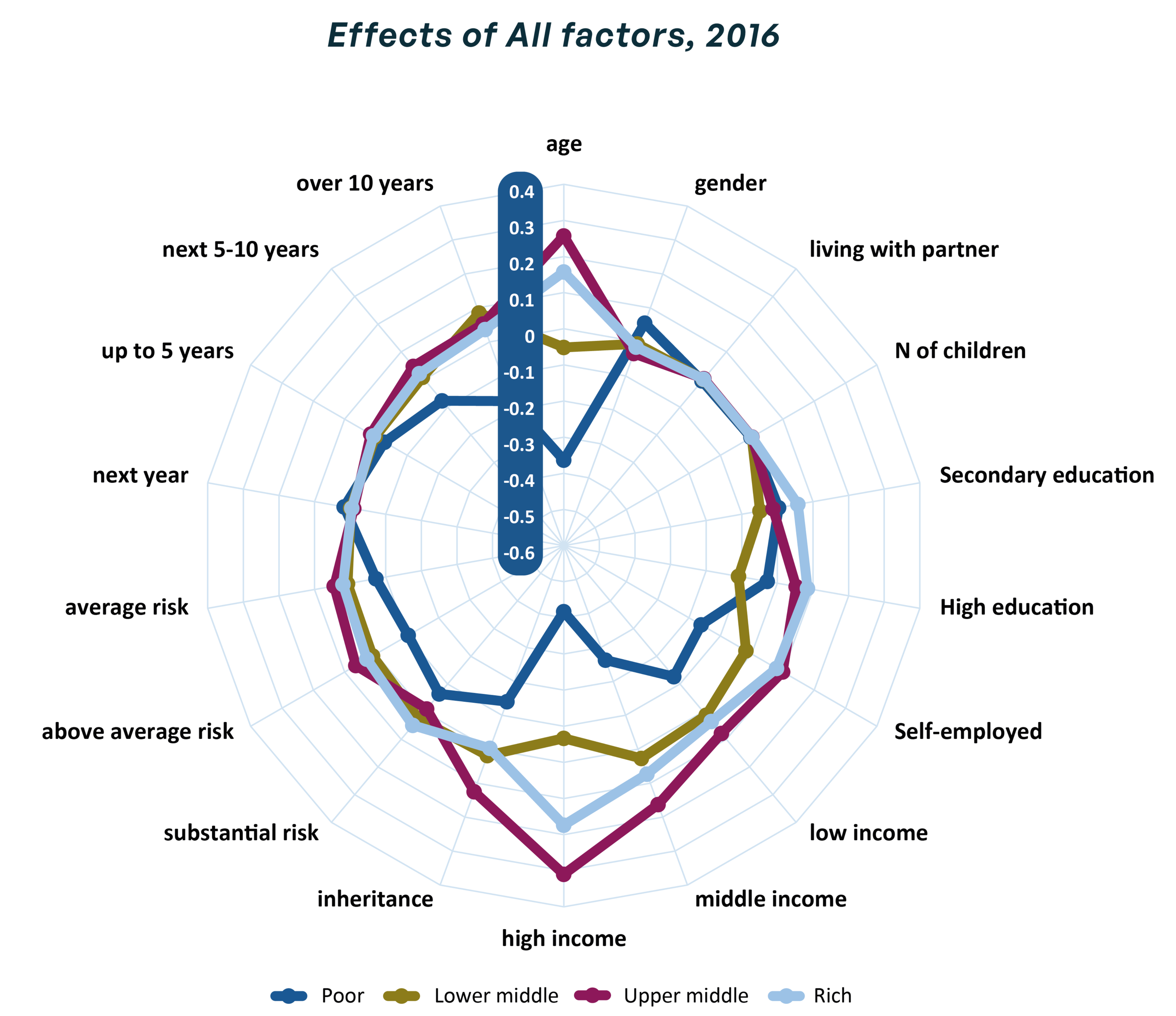
Rubin's rules: $\overline{\theta} = \frac{1}{K}\sum_{k=1}^{K}\theta_k$ $\quad V_T = V_W + V_B + \frac{V_B}{K}$ $\quad V_W = \frac{1}{K}\sum_{k=1}^{K} SE_k^2$ $\quad V_B = \frac{\sum_{k=1}^{K}(\theta_k - \overline{\theta})^2}{K-1}$

θ_k - parameter estimate based on one data implicate; K - number of implicates; V_W - within-imputation variance; V_T - total variance; V_B - between-imputation variance; SE_k - standard error of the coefficient estimated using i-th implicate's data.

RESULTS



Source: Own calculation using LWS data.



Source: Own calculation using LWS data.

CONCLUSIONS

- The marginal effects of both behavioral factors changed after the global financial crisis.
- The above average level of financial risk is the most beneficial for household wealth.
- The correlation between the level of financial risk and wealth depends on wealth group.
- Longer financial planning horizons are inducing to wealth.
- Correlation between the length of planning horizon and wealth depends on the wealth group.
- Age, education, and income-related factors have the strongest positive effect on wealth.