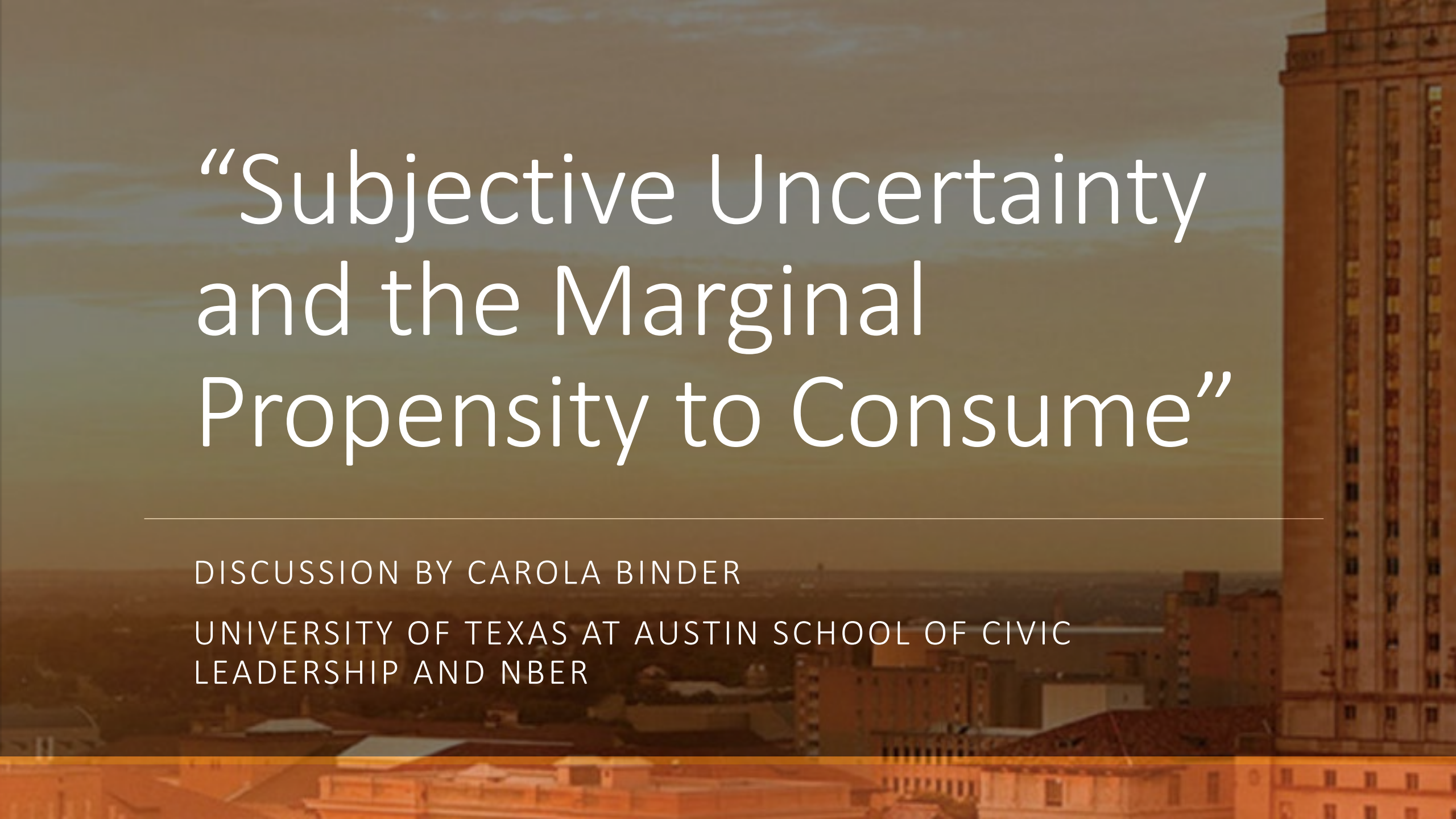


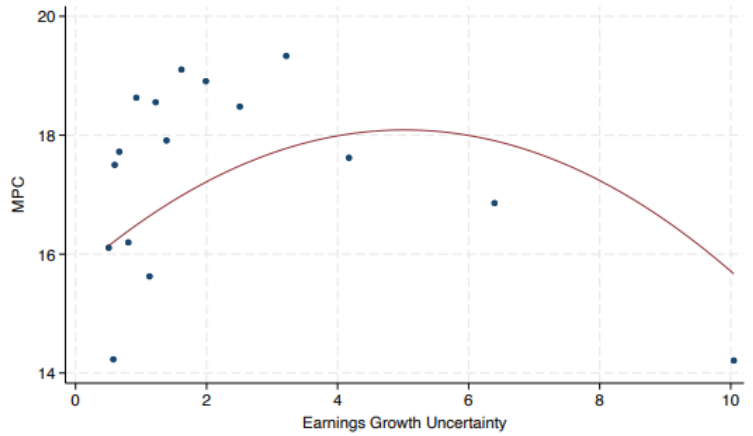
"Subjective Uncertainty and the Marginal Propensity to Consume"

DISCUSSION BY CAROLA BINDER

UNIVERSITY OF TEXAS AT AUSTIN SCHOOL OF CIVIC LEADERSHIP AND NBER

Key Results

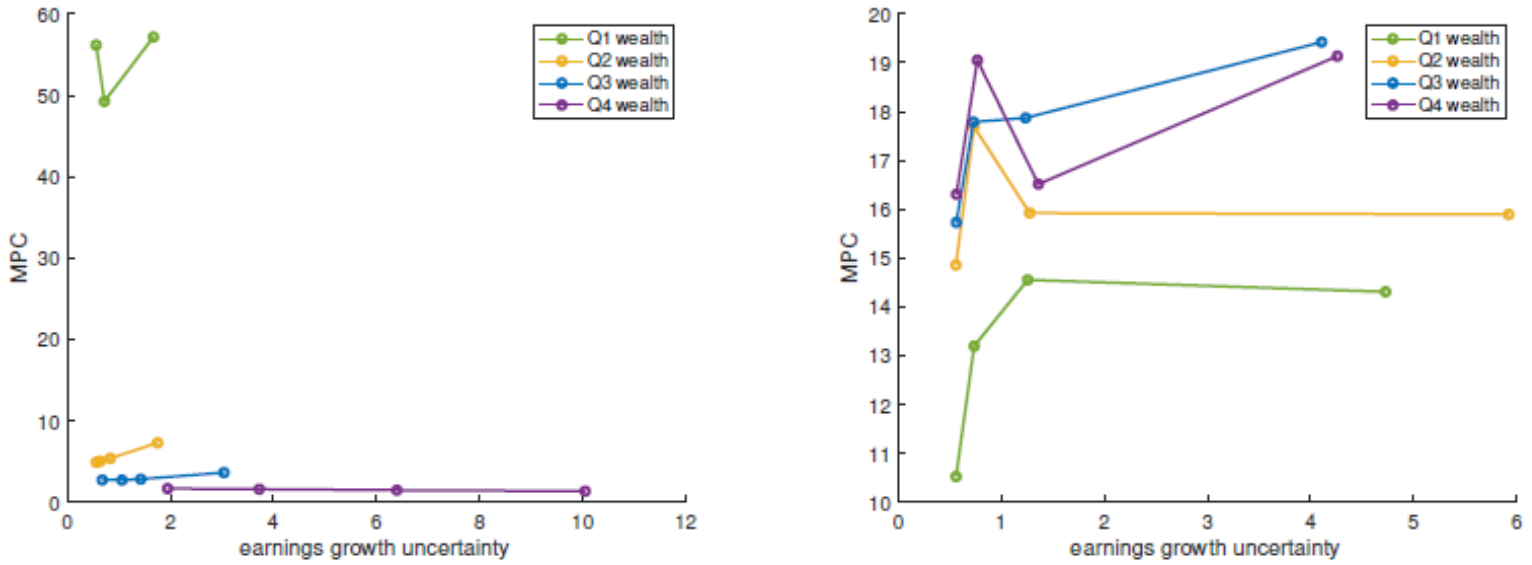
Figure 1: MPC and earnings growth uncertainty



Notes. The figure shows a binned scatterplot of MPC and earnings growth uncertainty, in the SCE for the sample period 2015-2023. The solid line displays a quadratic fit. Total number of observations: 17,312.

- Nonmonotonic relationship between subjective earnings (or spending) growth uncertainty and reported MPC.
- Robust to controlling for observables, but disappears when controlling for respondent fixed effects:
  "…much of the uncertainty perceived by households, as well their consumption-income sensitivity, are driven by latent, unobserved traits."
- Puzzling relationship between *net wealth* and MPC...

Figure 4: MPC and earnings growth uncertainty by wealth quartile



(a) Model (b) Data

Note: Left panel shows data simulated from the stationary distribution of the model. Households are grouped in four quartiles of wealth (a), from the lowest (Q1, in green) to the highest (Q4, in purple). For each quartile of wealth, dots represent quantiles of earnings growth uncertainty. The right panel repeats the same analysis in the SCE data, grouping households by quartiles of net liquid wealth.

Puzzling result:

In theory, MPC much higher for low wealth or indebted consumers.

Empirically, the opposite.

MPC Heterogeneity Matters

"The MPC and its heterogeneity are crucial for understanding the effects of fiscal and monetary policy and have received a lot of attention in the literature over the past decade (e.g., Kaplan and Violante (2014))."

Example: "Monetary Policy and the Redistribution Channel" (Auclert 2019):

- Heterogeneity in MPC is a key monetary policy transmission channel.
- Monetary policy that redistributes from savers (with low MPC) to debtors (with high MPC) boosts aggregate consumption.

MPC Heterogeneity Matters

Example: Farmers during the Great Depression had a higher MPC than other groups (Hausman, Rhode, and Wieland 2019 and 2020). Thus:

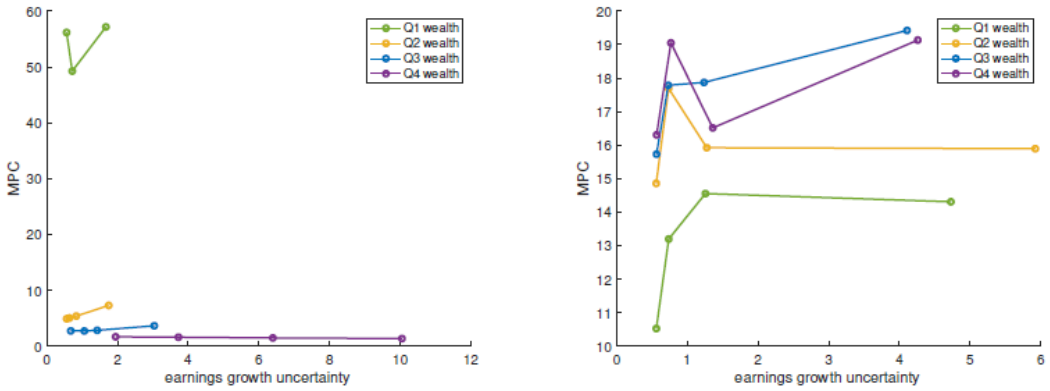
- Collapse of farm prices and farm income contributed to severity of the Depression.
- Recovery of farm prices after dollar devaluation in 1933 boosted farm incomes and led to large increase in consumption.
- Heterogeneity in MPC was a key propagating and amplifying factor in the Depression.

Why did farmers have higher MPC?

"Farmers in 1929 are the analogue of mortgaged US households in 2008 – they had large debt burdens that made maintaining consumption difficult when income declined. In 1930, farm mortgage debt was 190% of net farm personal income, while residential mortgage debt was 39% of nonfarm personal income. We have three reasons to believe that farmers' **debt burden** led to a large spending response to the decline in farm product prices. First, this is predicted by theory. Second, in Hausman et al. (2019) we find that in 1933, an increase in farm product prices increased auto sales more in counties where more farms were mortgaged. Third, in the 2008 financial crisis more leverage was associated with larger declines in household consumption (Mian et al. 2013)."

(Hausman et al. 2020).

Figure 4: MPC and earnings growth uncertainty by wealth quartile



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What could be going on?

-Asymmetric responses to income gains and losses

-Something else about consumer survey data/reporting

Asymmetric responses to income *losses*

Fuster et al. 2021

See also:
Zafar et al., 2013;
Bracha and Cooper, 2014;
Sahm et al., 2015;
Gelman et al. (2020);
Mijakovic 2022

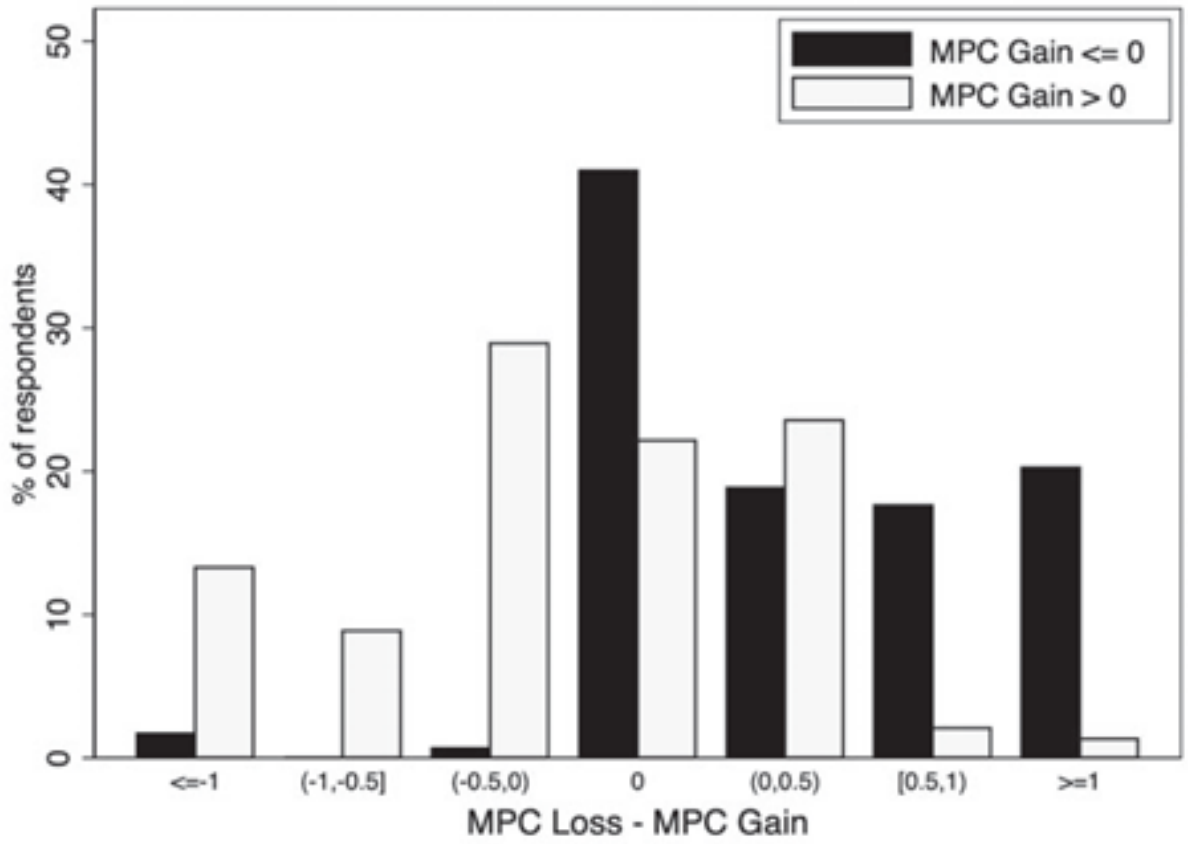


FIGURE 4
Distribution of difference between MPCs out of losses and gains.

QSP13new [added August 2015]

Now imagine that next year you were to find yourself with **10% less** household income. What would you do?

- ❍ Cut spending by the whole amount (1)
- ❍ Not cut spending at all, but cut my savings by the whole amount (2)
- ❍ Not cut spending at all, but increase my debt by borrowing the whole amount (3)
- ❍ Cut spending by some and cut savings by some (4)
- ❍ Cut spending by some and increase debt by some (5)
- ❍ Cut savings by some and increase debt by some (6)
- ❍ Cut spending by some, cut savings by some and increase debt some (7)

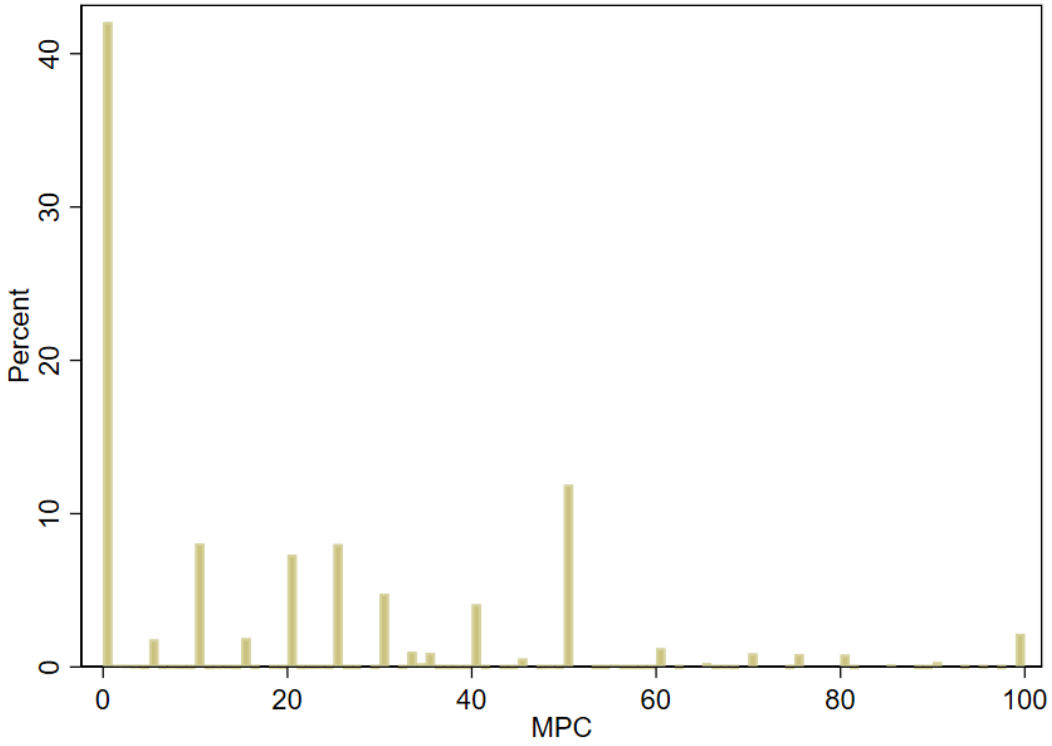
Show QSP13a if codes 4,5,6, or 7 selected at QSP13new

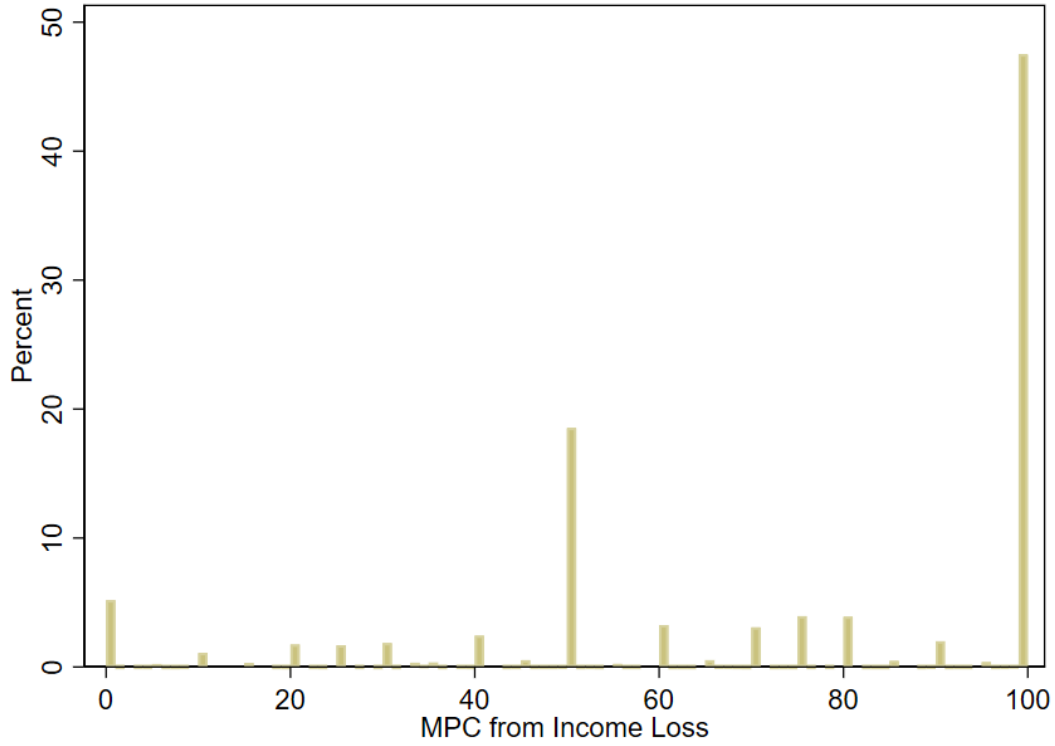
QSP13a [added August 2015]

Please indicate what share of the lost income you would cover by... (Please note that the three proportions need to add up to 100%)

Reducing spending (1) _____ % (1)
Reducing savings (2) _____ % (2)
Increasing borrowing (3) _____ % (3)

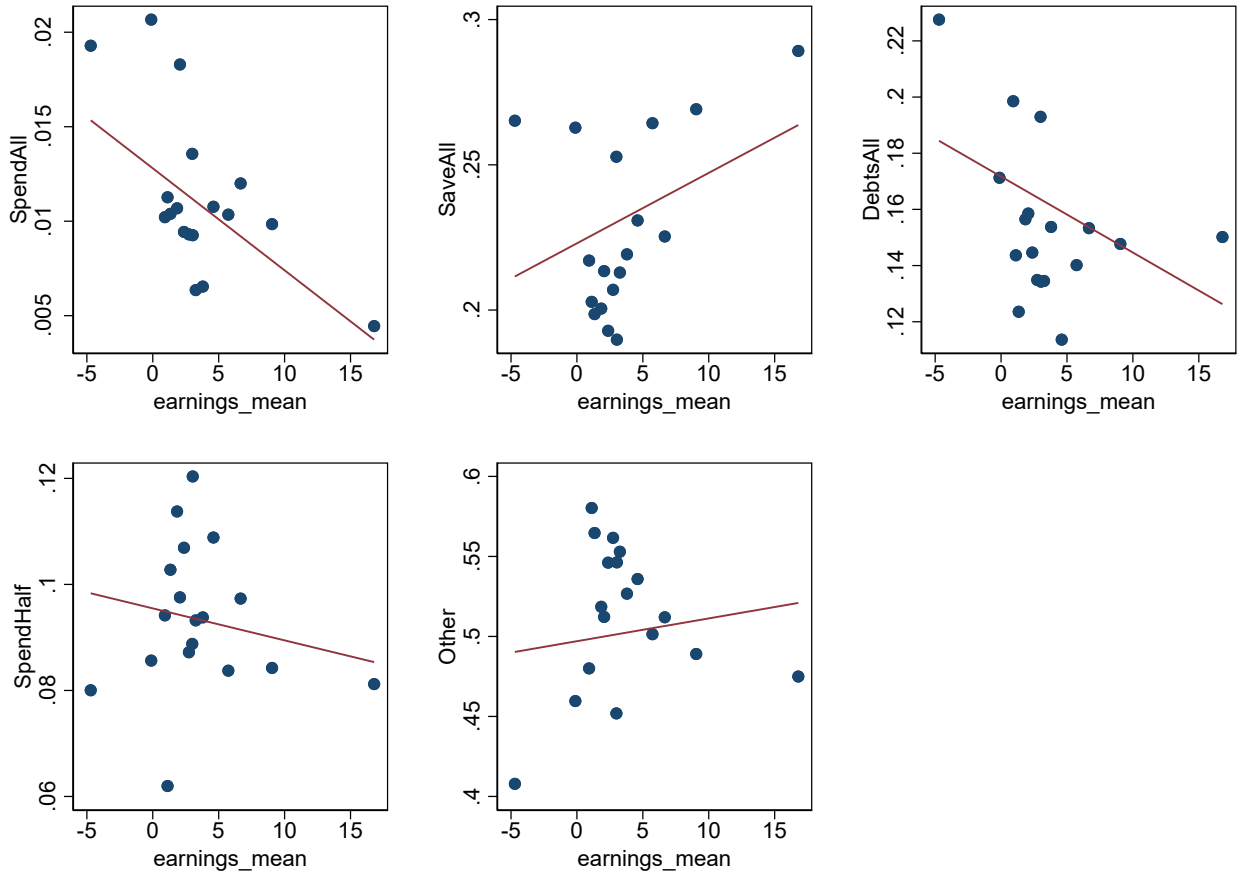
MPC from income losses are MUCH higher than those from income gains: about 74% versus 18%; correlation coefficient around -0.1.



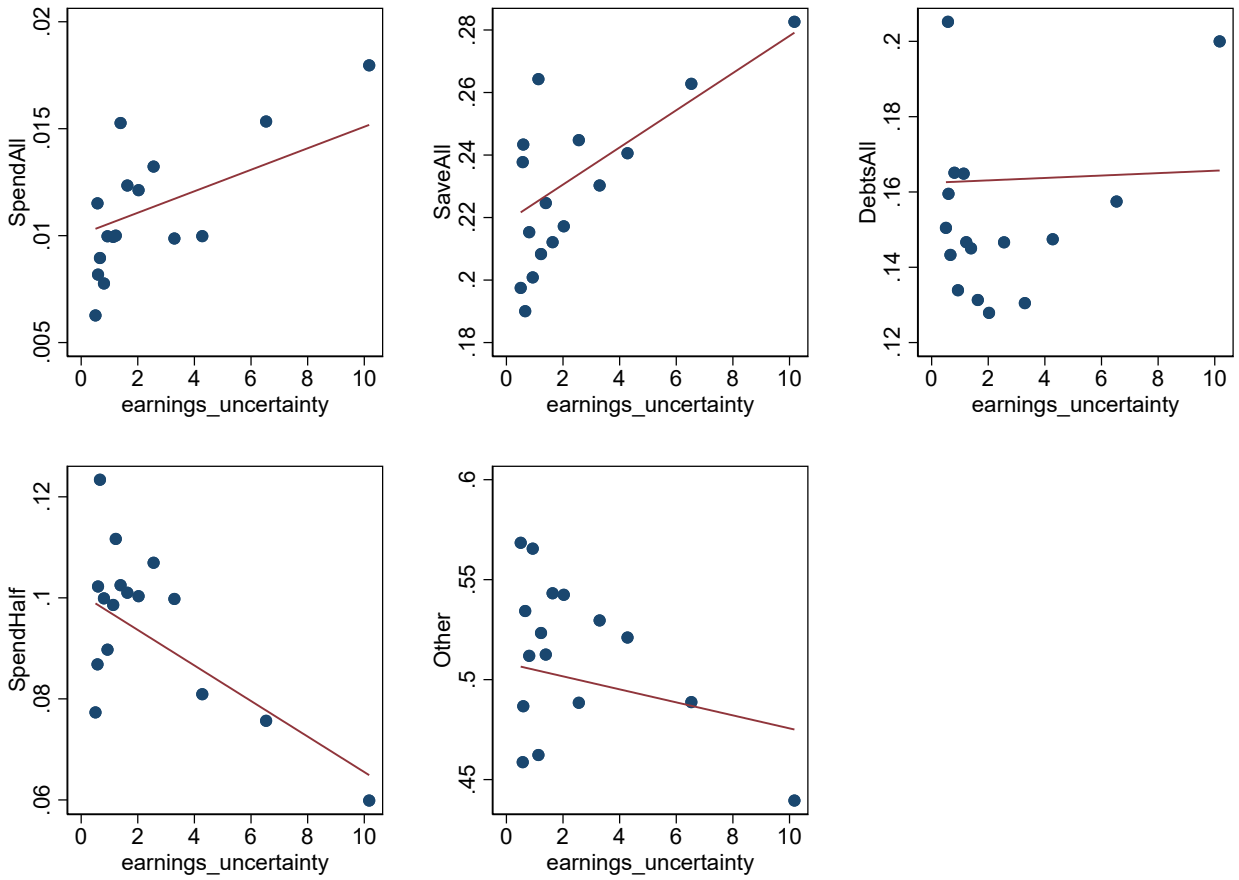


Only 1% of respondents would spend all of a 10% income gain, but 47% would cut spending by all of a 10% income loss!

Also note the irregular distribution of MPCs, stemming from qualitative response options and tendency to report “50%.”



Qualitative Responses by Earnings Expectations



Qualitative Responses by Earnings Uncertainty

Understanding the Identifying Variation

Results become insignificant when including respondent fixed effects or running regressions in first differences.

Extremely important to understand why!

What happens with year and individual FEs together?

Deep question: take seriously columns (1)-(4) or (5)?

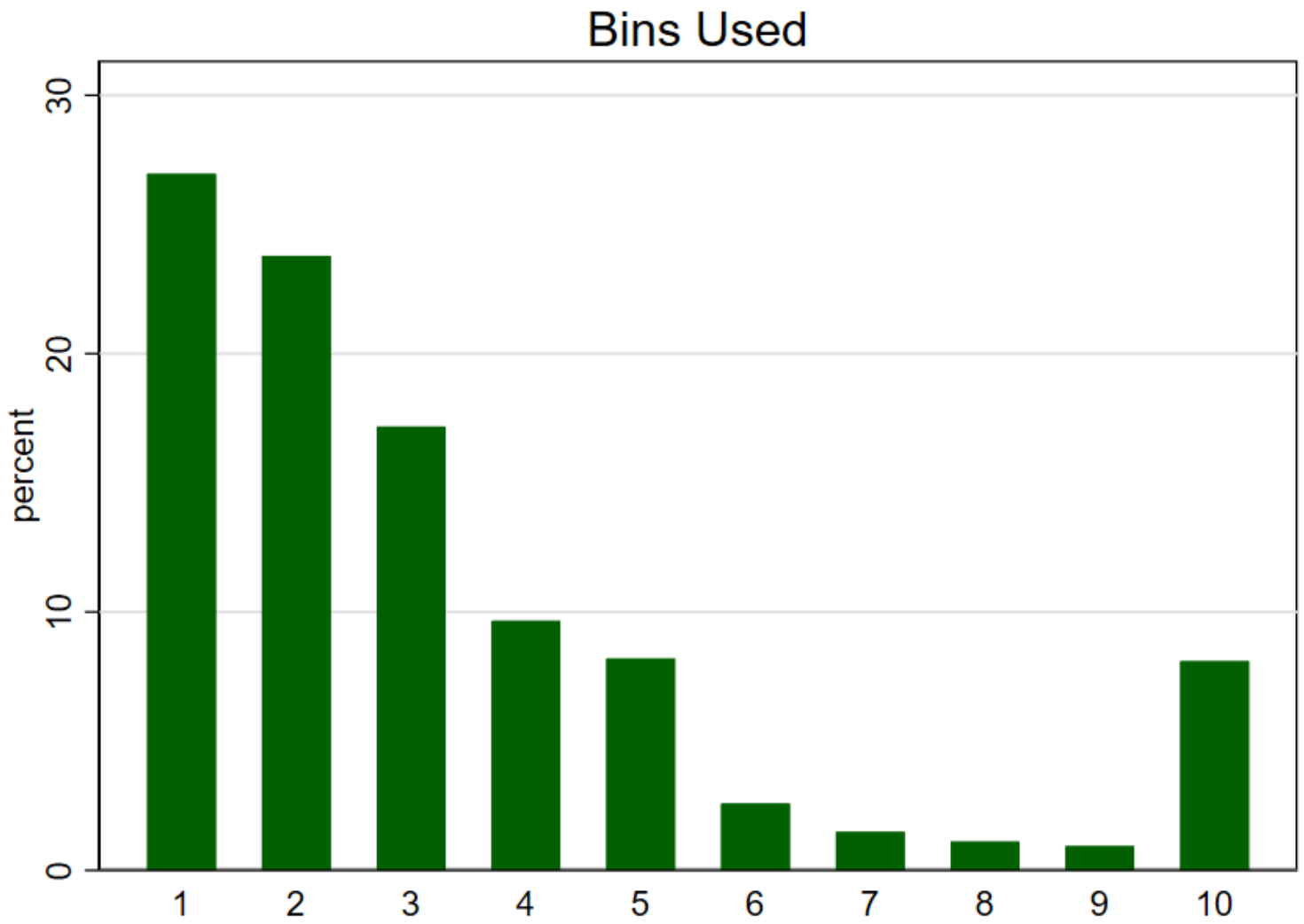
One suggestion to look into: reporting preferences on density forecasts.

Table 2: MPC and Earnings Growth Uncertainty

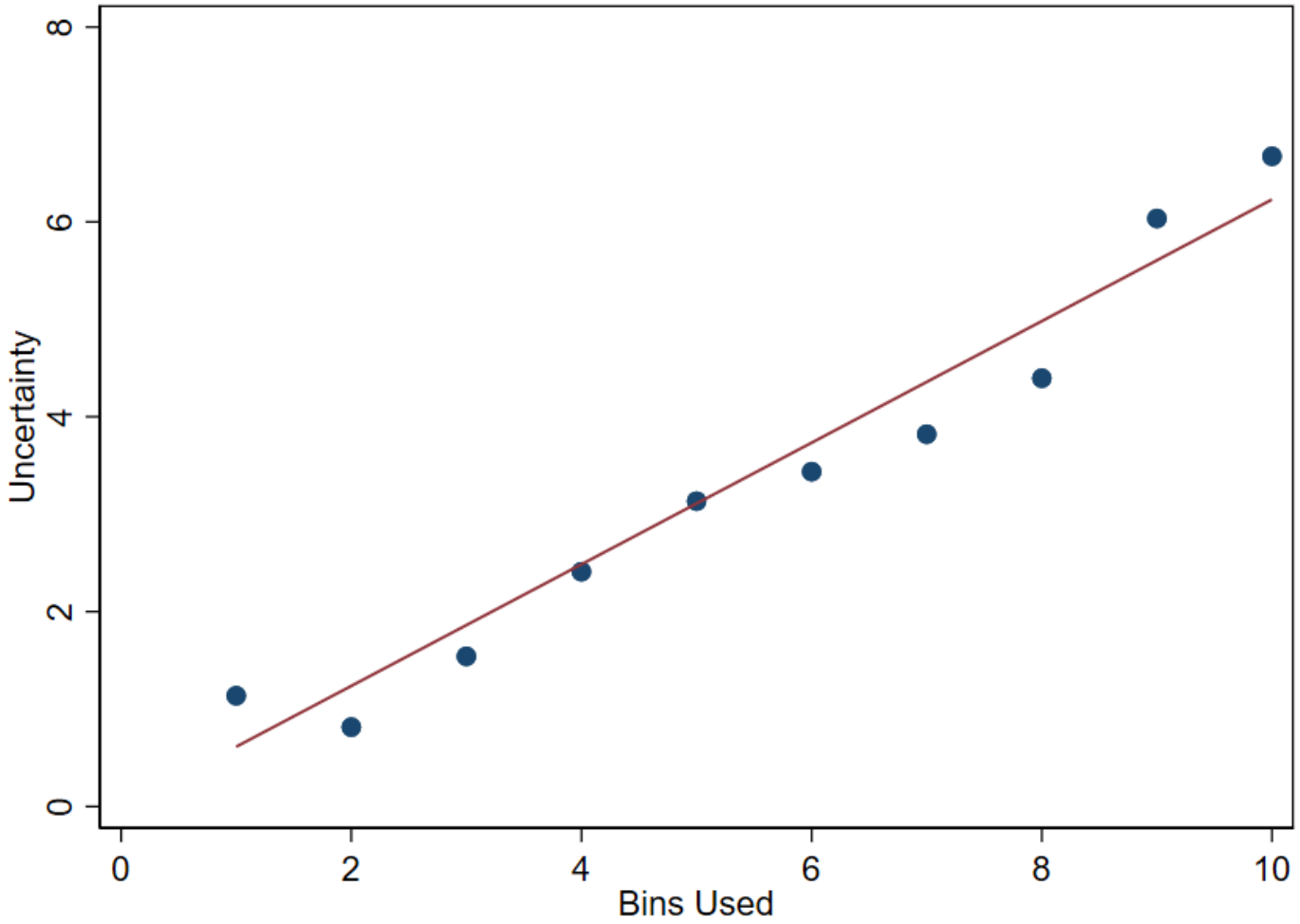
	(1)	(2)	(3)	(4)	(5)
Panel A					
Earnings Growth Uncertainty	-0.004	-0.007	-0.020	0.014	-0.229
	(0.068)	(0.070)	(0.070)	(0.137)	(0.371)
Expected Earnings Growth		0.007	0.007	-0.096	0.136
		(0.037)	(0.037)	(0.078)	(0.148)
Panel B					
Earnings Growth Uncertainty	0.797***	0.845***	0.799***	0.917***	0.165
	(0.168)	(0.180)	(0.180)	(0.334)	(0.826)
Uncertainty squared	-0.076***	-0.079***	-0.076***	-0.080***	-0.040
	(0.014)	(0.014)	(0.014)	(0.024)	(0.061)
Expected Earnings Growth		-0.034	-0.033	-0.144*	0.121
		(0.039)	(0.039)	(0.080)	(0.156)
Controls	✓	✓	✓	✓	✓
Year Dummies			✓	✓	
Net liquid wealth over income				✓	✓
Individual Fixed Effects					✓
Dep. Var. Mean	16.65	16.65	16.65	16.03	16.08
Adj. R-Squared	0.017	0.017	0.019	0.017	0.386
Observations	17,190	17,190	17,190	4,088	2,556

Note: Robust standard errors are included in parentheses and are clustered at the individual level in column 5. Time period for the sample is 2015-2023 for columns 1-3 and 2015-2020 for columns 4 and 5, due to availability of wealth variables in the data. Earnings growth uncertainty is measured as the standard deviation of an individual's density forecast for year-ahead earnings growth. The sample only includes employed individuals. Controls include log annual household income and dummy variables for having a college degree, for part-time work, self-employment, marital status, white vs non-white, gender, and age groups (25-34,35-50,51-65). Net liquid wealth over income ratio is winsorized at the 5th and 95th percentiles and available only until 2020.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

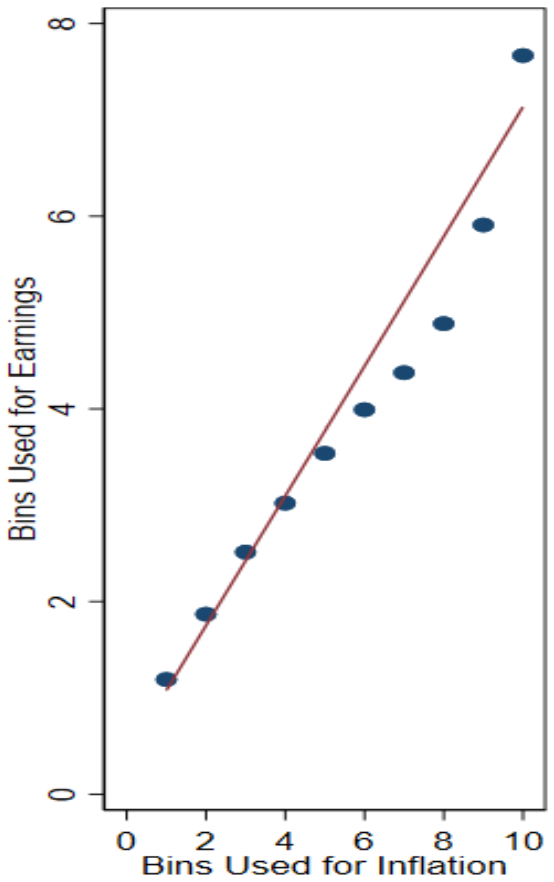
$$\text{MPC}_{itm} = \alpha_i + \beta_1 U_{itm} + \beta_2 U_{itm}^2 + \gamma \mathbb{E}_m[\Delta w_{i,t,m+12}] + \delta_t + \Gamma X_{itm} + \epsilon_{itm} \quad (1)$$

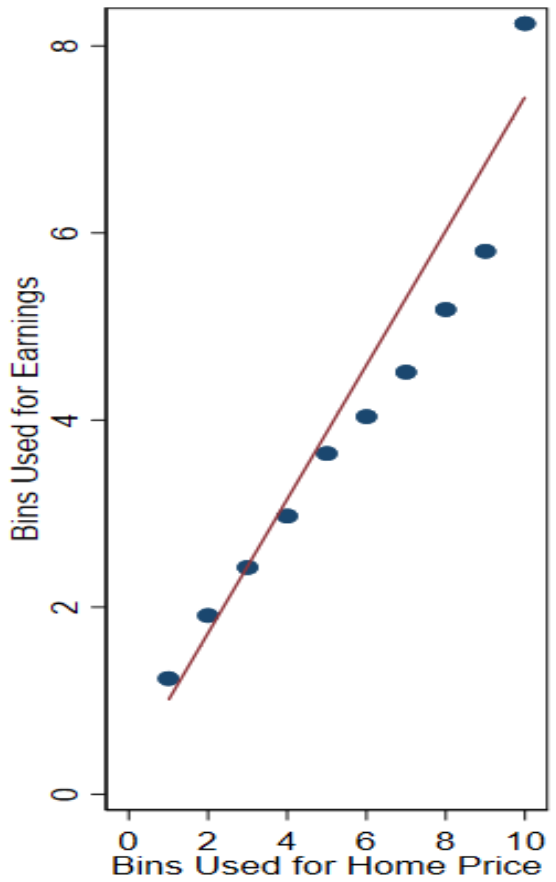


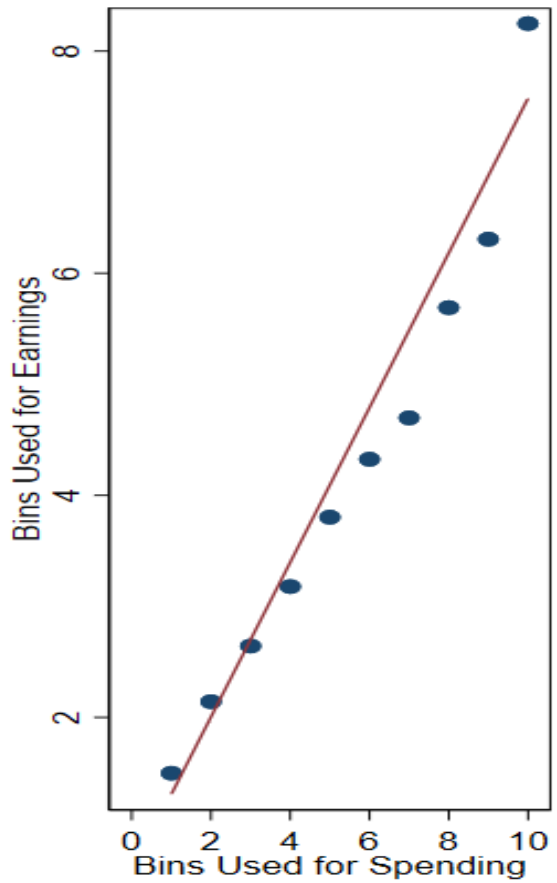
Earnings density forecasts: Modal respondent uses just one bin, but a sizeable share use all 10.



Earnings uncertainty is closely correlated to number of bins to which a respondent assigns nonzero probability.







Respondents are consistent *across items* in the number of bins they use. This reporting preference could be part of the latent heterogeneity.

Other comments

Respondents only stay in the survey for a year. Earnings uncertainty is fairly stable over that time period, but could be substantially more variable over longer periods.

On use of vignettes: Andre et al. (2022), Binder, Georgarakos, Kuang, Tang (WP)