Perceived Income Risks

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Outline

1. Motivation

2. Stylized facts
   - Cross-sectional pattern of subjective income risks
   - Correlation with stock market returns
   - Perceived risks and economic decisions

3. Model (work in progress)

4. Conclusion

Motivation

- dddddddd

This paper's agenda

1. dddd

Literature

- ddddd
  - dddd

Data

Table: Survey of Consumer Expectations

Time period	2013M6-2018M6
Frequency	monthly
Sample size	1,300
Density variable	1-yr-ahead earning growth (same position/hours)
Pannel structure	stay up to 12 months
Demographics	educ, income, age

- density estimation following (**?**)
- exclude top and bottom 5% values for forecast errors and uncertainty

Definitions

- Moments to look at
  - expected growth, $\overline{\Delta}_i(y_i)$
  - variance: $\overline{var}_i(\Delta y_i)$
  - skewness: $\overline{skew}_i(\Delta y_i)$
- Nominal can be converted into real using forecast uncertainty of inflation
  - $\overline{var}_i(\Delta y^r) = \overline{var}_i(\Delta y^n) + \overline{var}_i(\pi)$
- Also, can be adjusted with perceived unemployment risk. So the perceived risk of same job/hour is just a lower bound for income risk.

Outline

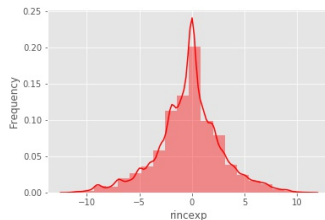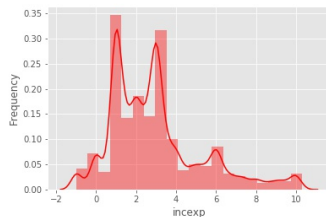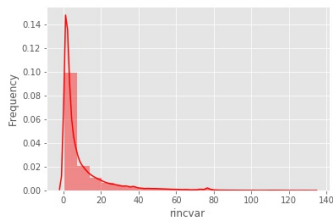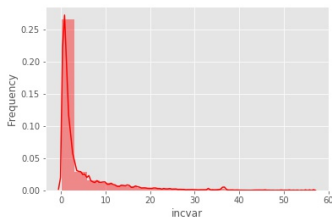# Cross-sectional distribution of expected income growth

- Nominal rigity can be seen from the expected norminal earning growth, while real expected growth become symmetric

# Cross-sectional distribution of income dispersion

- average perceived income risks: 3% standard deviation for nominal and 4% standard deviation for real income
- just a lower bound: before adjustment of unemployment risk

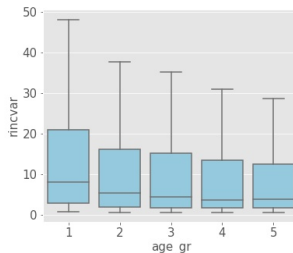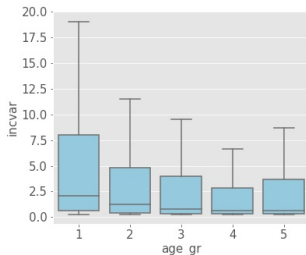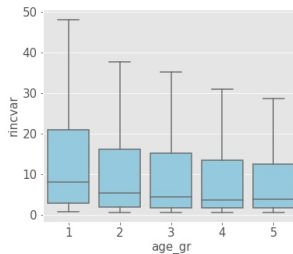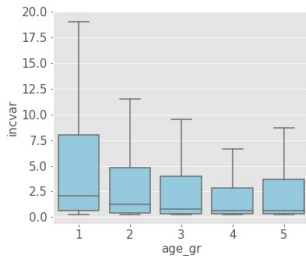# Cross-sectional distribution of tail risks
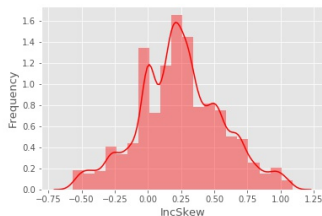
- sizable dispersion in skewness, i.e. about half of the people have non-zero skewness in perceived inome distribution.
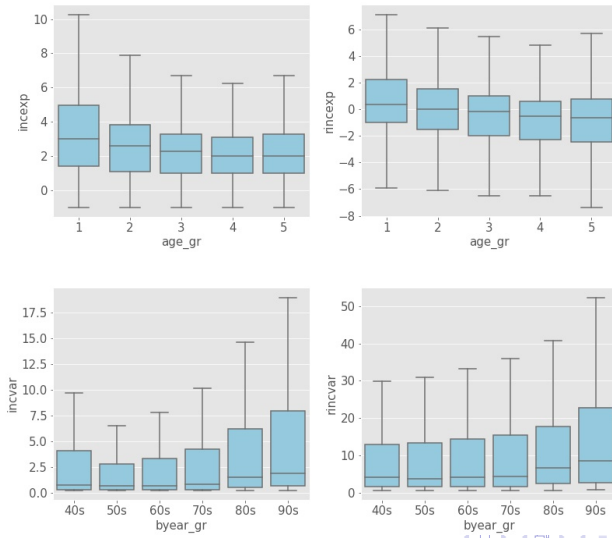
Perceived income risks by household income
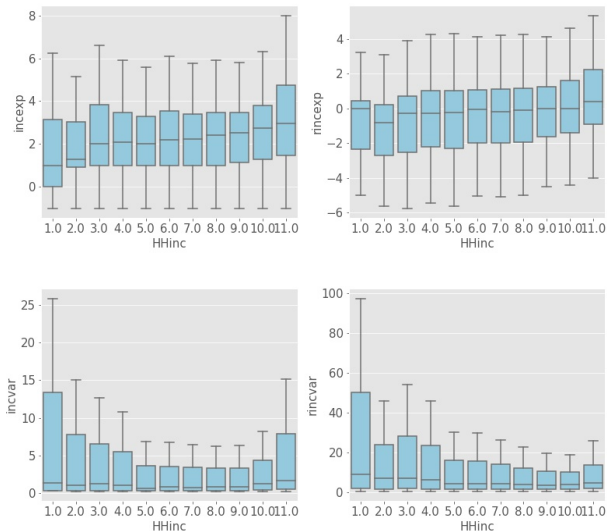
Perceived income risks by age

Perceived income risks by generation

Other covariants of perceived income risks

	incvar I	incvar II	incvar III	incvar IIII	rincvar I	rincvar II	rincvar III	rincvar IIII
gender=male				-0.77***				2.65***
				(0.10)				(0.19)
parttime=yes	0.05	0.24*	-0.65***		1.41***	1.80***	-1.26***	
	(0.12)	(0.13)	(0.14)		(0.23)	(0.26)	(0.28)	
selfemp=yes	7.21***	-0.00***	0.00***		6.27***	0.00***	0.00***	
	(0.15)	(0.00)	(0.00)		(0.27)	(0.00)	(0.00)	
Stkprob		0.01***	0.01***			-0.05***	-0.04***	
		(0.00)	(0.00)			(0.00)	(0.00)	
UEprobInd		0.03***	0.03***			0.06***	0.05***	
		(0.00)	(0.00)			(0.00)	(0.00)	
Income/educ	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	54029	47356	40979	47457	50730	44404	38745	44517
R2	0.05	0.00	0.02	0.00	0.01	0.01	0.04	0.02

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Expected income growth and stock market performance

Dispersion risks and stock market performance

Tail risks and stock market performance
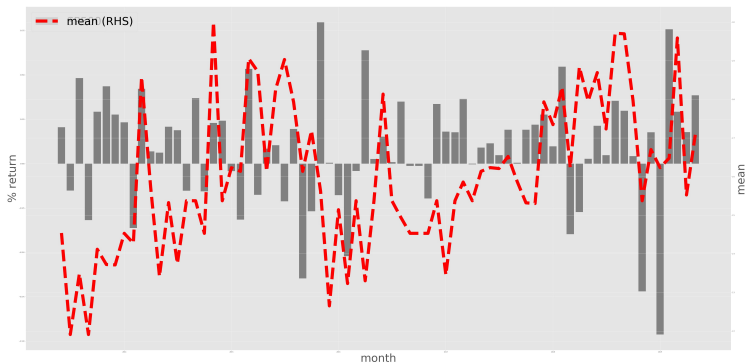
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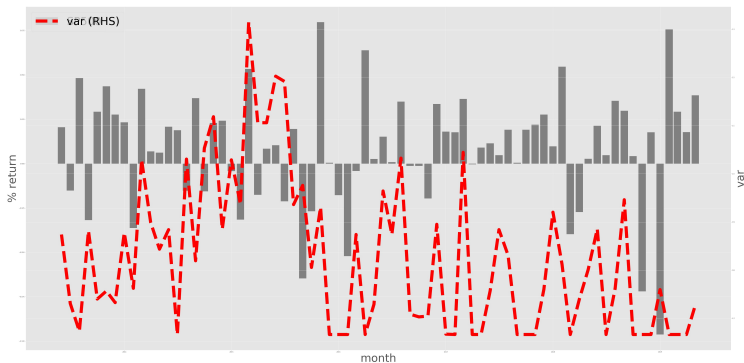   - Perceived risks and economic decisions

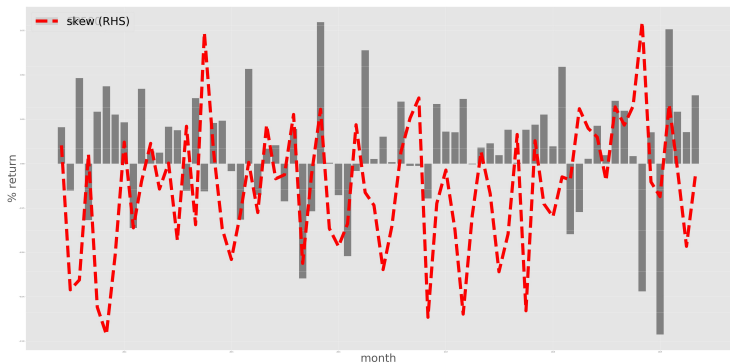3. Model (work in progress)

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Model ingredients

1. imperfect understanding of the income process, a deviation from rational expectation benchmark.
   - experience-based learning capturing the cross-generatio and age-dependence income perceptions
2. finite-period life cycle with a constant probability of death
3. uninsured idiosyncratic risks and aggregate risks, workhorse assumption of the HANK literature
4. single asset, i.e. no distinction between liquid and iliquid assets

Intuitions behind the model mechanisms

- imperfect understanding $\rightarrow$ heterogeneous perception of risks uninsurance of risks $\rightarrow$ difference in precautionary motives and MPCs across populations $\rightarrow$ potential amplification of aggregate MPC.

Other individual characteristics and perceived income risks

Table: Perceived Income Risks and Individual Characteristics

	incvar I	incvar II	incvar III	incvar IIII	rincvar I	rincvar II	rincvar III	rincvar IIII
gender=male				-0.77***				2.65***
				(0.10)				(0.19)
parttime=yes	0.05	0.24*	-0.65***		1.41***	1.80***	-1.26***	
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Some Figures

(a) FE

(b) Disg

(c) FE/Disg

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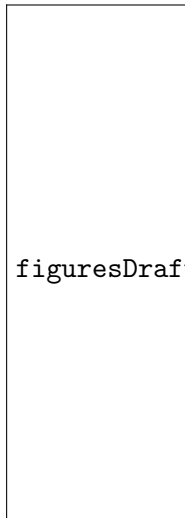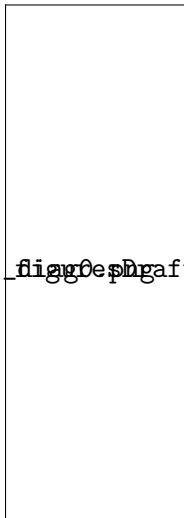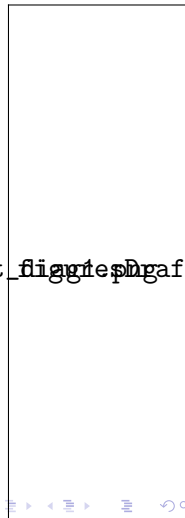
Conclusion

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Density estimation and robustness of my results

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