

Info session

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Subjective Expectations: Belief Elicitation, Evaluation, and Modelling

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PhD Seminar, 2023

Roadmap today

- ▶ Concept of the seminar
- ▶ Summary of teaching
- ▶ Summary of research avenues
- ▶ Discussion: What is interesting to you?

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- ▶ Brownbag lunch?

Teaching

1. Decision theory
2. measurement
3. evaluation
4. modeling

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 - ▶ Main theorem: If preferences over acts follow certain axioms, the preference relation can be represented by SEU with some utility u over outcomes and some distribution \mathbb{P} over states:

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- ▶ \Rightarrow If we measure utility and subjective probability, we can understand (rational) choices!

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- ▶ Many generalizations of SEU
- ▶ One example: Ambiguity aversion, where model representation requires a set of subjective probability distributions.
- ▶ For you: Experiments that show deviation from SEU? Or take models from literature and apply them to your field of interest.

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- ▶ Main trade-off: Informative questions vs simple questions?

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- ▶ Distributions: With visual help (online tool or tokens)

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- ▶ Elicit point forecast x for y : Pay $c - (x - y)^2$. Incentive compatible to report the mean of the subjective probability distribution.
- ▶ Use binarized version to make robust to utility function.

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 - ▶ How are deviations from reality correlated with covariates?
- ▶ True probabilities commonly unknown such that evaluation is an econometric exercise.

Two directions:

- ▶ 1. Modeling of subjective expectations
- ▶ 2. Economic models enriched with subjective expectations (facilitates identification, e.g. asset market participation lagging because of pessimistic expectations or attitudes, e.g. risk aversion?)

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 - ▶ Do subjective expectations matter for decisions?
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- ▶ On subjective expectations directly:
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 - ▶ Are they consistent with reality?
- ▶ Economic modeling: Use subjective expectations to...
 - ▶ ...extend existing models
 - ▶ ...identify/estimate previously unfeasible models

- ▶ A wide range of topics are in the reference list on QIS-LSF
 - ▶ macro (inflation, overreaction in beliefs, information rigidities, firm expectations, household consumption)
 - ▶ micro (ambiguity, experimental studies, trust)
 - ▶ finance (volatility, risk measures)
 - ▶ econometrics (machine learning, professional forecasters)
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- ▶ Good starting point: Handbook of Economic Expectations (2023).

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- ▶ Existing data sources:
 - ▶ Survey of Professional Forecasters (Fed, ECB, etc.)
 - ▶ Survey of Consumer Expectations (SCE)
 - ▶ IFO business survey (need to go to Munich)
 - ▶ Existing papers with replication material

Discussion

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- ▶ What am I currently most interested in specifically?
- ▶ Where could I see subjective expectations to be useful?
- ▶ Which part of the teaching would be most useful to me?
(theory, lab experiments, measurement, evaluation, modeling)

Plan

- ▶ Fill in this sheet of paper: Name, email, fields, projects in mind (Don't worry, if there is nothing substantial yet.)
- ▶ If you have not been here today, write me a mail.
- ▶ Listen to my presentations and think about research ideas (October 25/November 1)
- ▶ Prepare presentation (No meeting November 8)
- ▶ Present a paper and/or first research ideas (November 15/22/29)
- ▶ Write a short research proposal (5 pages)