# Competitiveness and Speculative Behavior





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  - tournament incentives (e.g., Brown et al. 1996)
- Financial professionals are particularly *competitive* (e.g., survey evidence by Kirchler et al, 2018)

Bubbles driven by speculative behavior
 (e.g., Galbraith, 1994; Kindleberger/Aliber 2011;
 Brunnermeier/Schnabel, 2016)





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  - → more speculation / more bubbles?
     (e.g., Fellner/Maciejovsky, 2007; Breaban/Noussair, 2015; Eckel/Füllbrunn, 2015; Holt et al., 2017)
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- Competitiveness related to financial professionals (Kirchler et al., 2018)
  - → less speculation / fewer bubbles? (e.g., Weitzel et al., 2020)





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- ... but they are also particularly smart
  - Common knowledge about subjects' rationality (cognitive sophistication?) is able to eliminate bubbles Cheung et al., 2014
- → introduce cognitive sophistication and common knowledge about that as an additional explanatory variable



# **Hypotheses**



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### **Hypothesis 2**

Subjects' propensity to speculate is higher with common knowledge about being in a high-competitiveness group than with common knowledge about being in a low-competitiveness group.

## **Hypothesis 3**

Subjects' propensity to speculate is lower with common knowledge about being in a high-performance group than with common knowledge about being in a low-performance group.

# **Experiment: Procedure**



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1. Elicit subjects' individual competitiveness

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2. Elicit speculative behavior ('Bubble Game') within these groups





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    - Three stages:
       Piece-rate incentives
       Tournament incentives
       Choice





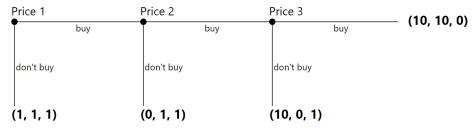
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  - Competitiveness: 'invest' proportion (Saccardo et al., 2018)
    - *t<sub>i</sub>* in *tournament* incentive scheme
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    - *t<sub>i</sub>* in *tournament* incentive scheme
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- Sort subjects into groups of three according to competitiveness level or according to their performance: LOWest 50%. HIGHest 50%

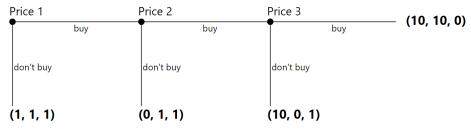






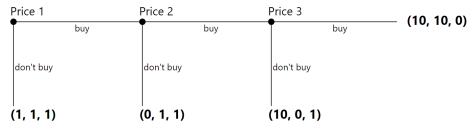


3. 'Bubble Game' (Moinas/Pouget, 2013) within these groups of three:



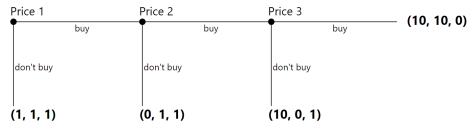
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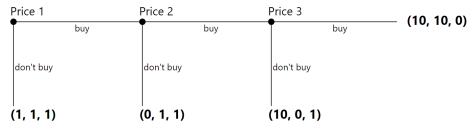




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- → individual measure for propensity to speculate (Janssen et al., 2019)







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- → individual measure for propensity to speculate (Janssen et al., 2019)
- aggregate outcomes: bubble or no bubble



# **Experiment: Treatments**



	Information level		
	none	LOW-group	HIGH-group
Information about others' willingness to compete	BASE	PERF <sub>LOW</sub>	PERFHIGH
Information about others' performance	DAJL	$COMP_{LOW}$	COMPHIGH





246 **male** participants (so far; preregistered: 480, i.e., 96/treatment)

■ BASE: 42

PERFHIGH: 51

PERFLOW: 51

COMPHIGH: 51

COMPLOW: 51

Since March 2022, data collection still ongoing

Several labs: WU Vienna, Innsbruck, Graz, Brno

Student participants, avg. age: 22.8 - 24.7



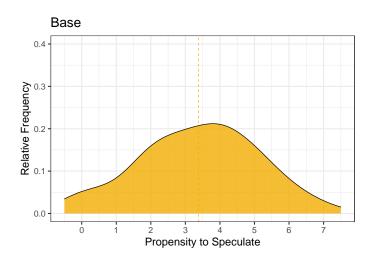


## Propensity to speculate across treatments

Treatment	Mean	S.d.
BASE	3.381	(1.696)
PERF <sup>HIGH</sup> PERF <sub>LOW</sub>	3.529 3.961	(1.433) (1.523)
COMP <sup>HIGH</sup> COMP <sub>LOW</sub>	3.824 3.510	(1.786) (2.014)

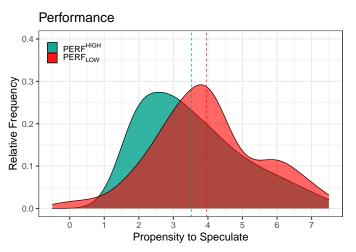












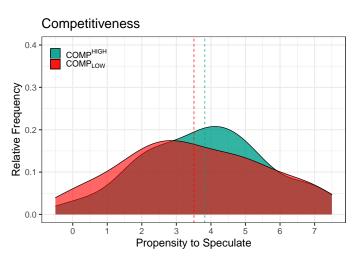
*t*-test: p = 0.144

Wilcoxon ranksum test: *p* = 0.075

EQUIS NACES ACSS ACSS ACSS Competitiveness and Sp





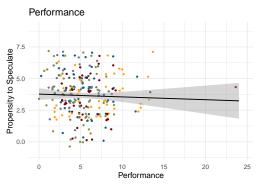


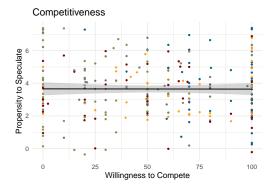
t-test: p = 0.407

Wilcoxon ranksum test: p = 0.401









BASE PERFLOW PERFHIGH COMPHIGH COMPLOW

BASE:  $\rho = 0.060$ PERF:  $\rho = 0.081$ COMP:  $\rho = -0.184$  BASE PERFLOW PERF<sup>HIGH</sup> COMP<sup>HIGH</sup> COMP<sub>LOW</sub>

$$\rho = -0.035$$
 $\rho = -0.017$ 
 $\rho = 0.004$ 





Beliefs about others' performance/competitiveness across treatments

Treatment	Spec.	Beliefs(Performance)	Beliefs(Competitiveness)
BASE	3.381	4.738	4.476
PERF <sup>HIGH</sup>	3.529	4.667	4.708
PERF <sub>LOW</sub>	3.961	4.167	4.292
COMP <sup>HIGH</sup>	3.824	4.267	5.000
COMP <sub>LOW</sub>	3.510	4.800	4.533



# (Preliminary) Conclusion



- Individual competitiveness does not drive speculation
- Cognitive sophistication does not drive speculation



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- Beliefs about competitors' competitiveness does not drive speculation
- Beliefs about competitors' cognitive sophistication is related to speculation



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- Cognitive sophistication does not drive speculation
- Beliefs about competitors' competitiveness does not drive speculation
- Beliefs about competitors' cognitive sophistication is related to speculation
- ... more data will tell







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