

Written Exam for the course

Behavioral Economics and Finance

Master's Course

Date: 17/1/2014

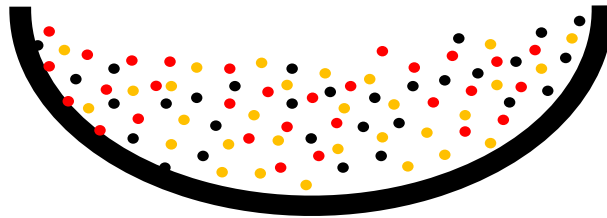
(2-hour, closed book exam)

The exam consists of 3 different questions (with sub-questions).

Good luck.

(1) Ambiguity Aversion:

- (a) Suppose you have an urn containing 20 red balls and 80 other balls that are either black or yellow.



Using this urn, explain the Ellsberg Paradox by constructing two binary choice examples and discussing how people often behave in these choice situations.

Points to be included in answer: see lecture slides 6-13 of lecture 11 for a formal treatment of the same example with different numbers.

- (b) Explain how people's behavior in the above mentioned urn example is related to ambiguity aversion and how Max-Min preferences [Lecture 11] can explain this behavior.

Points to be included in answer: see lecture slides 15-26 of lecture 11.

- (c) Sarin and Weber [i.e. *Sarin & Weber (1993), Effects of Ambiguity in Market Experiments, Management Science, 39(5), 602-615*] experimentally study the effect of ambiguity on market prices. Explain their experimental analysis and results.

Points to be included in answer: as a starting point see lecture slides 27-30 of lecture 11. More details in their paper.

(2) Distributional concerns

- (a) Formally explain the model of inequality aversion by Fehr and Schmidt (1999) [i.e. *Fehr & Schmidt (1999), A theory of fairness, competition, and cooperation, Quarterly Journal of Economics 114(3), 817-868*]

Points to be included in answer: as a starting point see lecture slides 11-13 of lecture 13. More details in their paper.

- (b) Formally explain how people should behave in the dictator game and the ultimatum game given Fehr and Schmidt (1999)'s theory of inequality aversion.

Points to be included in answer: see lecture slides 14-19 of lecture 13 for a formal treatment of this.

- (c) Explain the lab and field evidence regarding the impact of fairness concerns on the wage effort relation in spot and ongoing work situations as discussed by Fehr et al. (2009) [i.e. *Fehr, Goette and Zehnder (2009), A Behavioral Account of the Labor Market: The Role of Fairness Concerns, Annual Review of Economics, 1(1), 355-384*]

Points to be included in answer: see parts 4.1 and 4.2 on pages 364-371 of their paper

(3) Representativeness and Conservatism

- (a) Explain the representativeness heuristic and why this heuristic might lead to the conjunction fallacy.

Points to be included in answer: as a starting point see lecture slides 5-8 of lecture 5. Regarding the conjunction fallacy and its relation to the representativeness heuristic consider the following example also discussed in class:

Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations.

Which is more likely?

(1) Linda is a bank teller.

(2) Linda is a bank teller and is active in the feminist movement.

Often people asked chose option 2. However the probability of two events occurring together (in "conjunction") is always less than or equal to the probability of either one occurring alone

Tversky and Kahneman argue that most people get this problem wrong because they use the representativeness heuristic to make this kind of judgment. Option 2 in this example seems more "representative" of Linda based on the description of her, even though it is clearly mathematically less likely.

(b) Explain the conservatism bias.

Points to be included in answer: see lecture slides 3-5 of lecture 4b.

(c) Explain how Barberis et al. (1998) [i.e. *Nicholas Barberis, Andrei Shleifer & Robert Vishny (1998), A model of investor sentiment, Journal of Financial Economics, 49, 307-343*] combine conservatism and representativeness in one model to explain short run under and mid run overreactions.

Points to be included in answer: as a starting point see lecture slides 12-21 of lecture 6. More details in their paper.