

Written Exam for the M. Sc. in Economics, Winter 2011-2012

## **Behavioral Economics and Finance**

Master's Course

3 January 2012

(2-hour, closed book exam)

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

Good luck.

**(1) Prospect theory:**

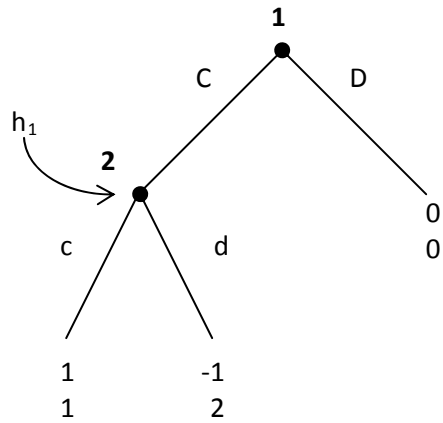
- (1a)** Explain the nature / character of the value function in prospect theory and explain the evidence that is underlying the particular shape of it.
- (1b)** Which type of decisions is prospect theory trying to model? In how far is prospect theory different from the standard expected utility framework?

**(2) Disposition effect:**

- (2a)** Explain the disposition effect and the evidence related to it.
- (2b)** Furthermore explain which features of prospect theory can explain the disposition effect.
- (2c)** Consider a situation in which an investor has to decide which stocks to sell and which stocks to hold in his portfolio. Assume that the investor behaves according to prospect theory. Does the disposition effect arise for any possible reference point that the investor might have? If not, explain which ones might be relevant.

**(3) Social Preferences:** There is by now a large amount of evidence showing that people are not only motivated by their material self-interest. People also seem to care about others' outcomes as well as intentions. Against the background of this empirical finding models of "distributional concerns" and "reciprocity" have been developed. During the course we more specifically spoke about the model of "Inequality Aversion" of Fehr and Schmidt (QJE, 1999) and the model of "Sequential Reciprocity" of Dufwenberg and Kirchsteiger (GEB, 2004).

- (2a)** In the model of "Inequality Aversion" by Fehr and Schmidt (QJE, 1999) it is assumed that people maximize a utility function that differs from pure egoism. State the utility function that is proposed in Fehr and Schmidt (QJE, 1999) and describe its different parts intuitively. Furthermore, consider the dictator game and explain what a dictator that is motivated by 'Fehr and Schmidt' - inequality aversion would optimally do in this situation.
- (2b)** In the model of "Sequential Reciprocity" by Dufwenberg and Kirchsteiger (GEB, 2004) it is assumed that people have belief-dependent preferences. State the utility function that they propose and explain how kindness perceptions (i.e. the  $\lambda_{iji}$ ) depend on players first- and second-order beliefs.
- (2c)** Furthermore consider the following strategic situation:



How sensitive to reciprocity does player 2 have to be to choose cooperation (c) with certainty in history  $h_1$ ? Also give some intuition.