Written Exam for the B.Sc. / M.Sc. in Economics 2009-I

Behavioral Economics and Finance

Master's Course

December 19, 2008

(2-hour, closed book exam)

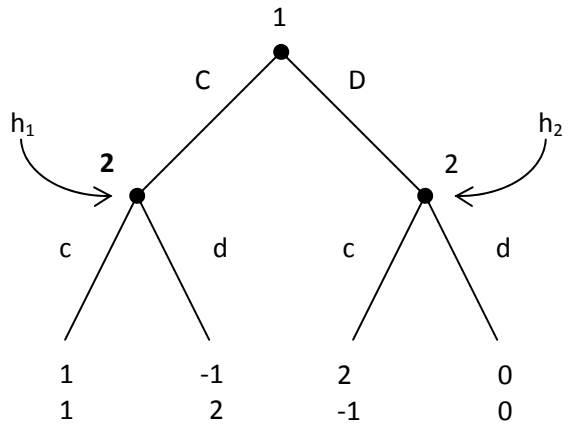
The exam consists of 3 different questions (with sub-questions). Answer as much as you can.

Good luck.

(1) 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 studied the model of "Inequality Aversion" of Fehr and Schmidt (QJE, 1999) and the model of "Sequential Reciprocity" of Dufwenberg and Kirchsteiger (GEB, 2004).

(1a) 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, explain why their model can explain positive payments in the "dictator game" in which one person, "the dictator", has to divide an amount of e.g. 100$ between himself and an other person.

(1b) 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 λ_{iji}) depend on players first- and second-order beliefs. Furthermore consider the following "Sequential Prisoners Dilemma":



A player 2 that is motivated by reciprocity à la Dufwenberg and Kirchsteiger (GEB, 2004) will definitely choose defect (d) in history h_2 as (i) he feels unkindly treated and (ii) cooperation is costly. How sensitive to reciprocity does he have to be to choose cooperation (c) with certainty in history h_1? Give the intuition.

(2) Prospect Theory: Against the background of a lot of experimental evidence at odds with "expected utility theory" Kahneman and Tversky (Econometrica, 1979) developed "prospect theory".

(2a) In “prospect theory” it is assumed that people take decisions by first “editing” and then “evaluating”. Explain these two “phases”. State the value function proposed by Kahneman and Tversky (Econometrica, 1979) and explain it. Furthermore, explain the decision weight $\pi(p)$ and its salient properties (e.g. $\pi(p) > p$ for small values of p).

(2b) Describe the “disposition effect” that can be observed on the stock market and how it can be explained by “prospect theory”.

(3) Myopic Loss Aversion and the Equity Premium Puzzle: There is a large discrepancy between returns on stocks and fixed income securities. This discrepancy is difficult to explain with traditional assumptions about choices under risk and uncertainty – the “equity premium puzzle”.

(3a) Explain why traditional expected utility theory is difficult to reconcile with the empirically observed discrepancy between returns on fixed income securities and stocks.

(3b) Explain what myopic loss aversion is and explain intuitively why it can explain the “equity premium puzzle”.