Behavioral Economics and Finance

Master's Course

(2-hour, closed book exam)

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

Good luck.

(1) 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".

(**1a**) 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. subadditivity).

(**2b**) Explain the "disposition effect" that can be observed on the stock market and how it can be explained by "prospect theory". Furthermore, describe the evidence for a disposition effect presented in Odean (1998).

(2) 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".

(**2a**) Explain what myopic loss aversion is and explain intuitively why it can explain the "equity premium puzzle".

(**2b**) Describe Bernatzi and Thaler (1995)'s analysis and explain how they explain the equity premium puzzle with the help of myopic loss aversion.

(3) Hyperbolic Discounting/Self Control Problems: Very often we have to take decisions today which might have consequences in the future. The classical model that is used to analyze intertemporal decisions is the discounted utility model.

(**3a**) Explain why the discounted utility model implies time consistent behavior. Is it realistic to assume time consistent behavior? Give an example of time inconsistent behavior.

(**3b**) Laibson (1997) develops a simple model of hyperbolic discounting. He finds that hyperbolic discounting leads a person to consume more than she would like from a prior perspective (i.e. to under-save for e.g. retirement). Furthermore, he explores role of illiquid assets, such as housing, as a commitment technology, emphasizing how a person could limit overconsumption by tying up her wealth in illiquid assets. Explain intuitively why a person that uses hyperbolic discounting under-saves and uses illiquid assets as commitment devices.