

12C002

Information Economics

3 ECTS

Overview and Objectives

This course analyzes situations of asymmetric information, that is, situations where one economic agent knows something that another economic agent doesn't. For example, a worker might have a better idea of his capabilities than his employer does, managers know more about investment prospects than stockholders or investors. This asymmetric information typically leads to economic inefficiencies.

Two situations are distinguished: moral hazard (informational asymmetries after the agents have started their relationship) and adverse selection (informational asymmetries that exist before starting the relationship). Also the best informed agent could try to signal her information before the contract is signed (signalling) or the worst informed agent can try to learn about the other's characteristics (screening). We are going to study such different versions of the problem and how the economic agents involved might try to control informational asymmetries. Solutions may involve, for example, one (or several) contracts or organizational design solutions (like tournaments). We will start with a setting of a relationship between two parties for a single period and with a single task, and extend it to incorporate more parties, more tasks, and/or more periods of time.

Information economics has been a rapidly growing area in economics in the last decades. Many applications exist in industrial organization, management, finance, accounting, insurance and marketing. In particular, in many regulation problems these elements are present and play an important role. We will include in the presentation examples of such applications.

Course Outline

1. Introduction

- a. The Relevance of Information Economics: Motivational Examples
- b. A Benchmark: Contracts with Complete Information

2. Moral Hazard

- a. One principal and one agent model
- b. A discussion when there are several agents
- c. A discussion when there are multiple tasks

3. Adverse Selection

- a. One principal and one agent model
- b. Several agents and the mechanism design problem

4. Signaling

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Required Activities

There will be problem sets throughout the course.

Evaluation

The solutions to the chosen problems will be graded. The average grade across these will count for 20% of the final grade. The other 80% will be based on the score of a final examination.

Materials

Macho-Stadler, I. & Perez-Castrillo, D., 2005, An Introduction to the Economics of Information. Oxford University Press, 2nd edition.

Bolton, B. & Dewatripont, M., 2005, Contract Theory, MIT Press.

Laffont, J.J. & Tirole, J. (1993), "A theory of incentives in procurement and regulation", MIT Press