THEORY OF THE FIRM AND OF THE MARKETS

Firms are important components of most economic systems

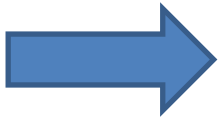
Why do they exist?

How do they operate?

"*But in view of the fact that it is usually argued that co-ordination will be done by the price mechanism, why is such organisation* [the firm] *necessary?*" (Ronald Coase, 1937, The Nature of the Firm, *Economica*, 386-405)

FIRST THEOREM OF WELFARE ECONOMICS:

"Any competitive equilibrium always yields a Pareto efficient allocation of social endowment"



the price mechanism always yields an allocation of endowment that cannot be improved

Price mechanism does not operate inside a firm

May the authority mechanism be more efficient than the price system in the allocation of the resources?

We actually observe both the markets AND the firms

Some job exchanges may take places both in the markets and inside a firm

e.g.: architect and home-building company

THE NATURE OF THE FIRM

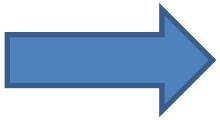
- What is the firm?
- Which is the role of the firm?
- Why do some exchanges take place in the markets and others inside the firm?

  ⇒ For which economic transactions the firm operates better than the market?

- Which is the best contractual relationship in the different situations?
- Which organizational practice is the most suitable to the different circumstances?
- Which is the most suitable financial structure of the firm?

THROUGH THE LENS OF CONTRACT THEORY

"Economics as a science of choice"



dominant paradigm throughout the twentieth century

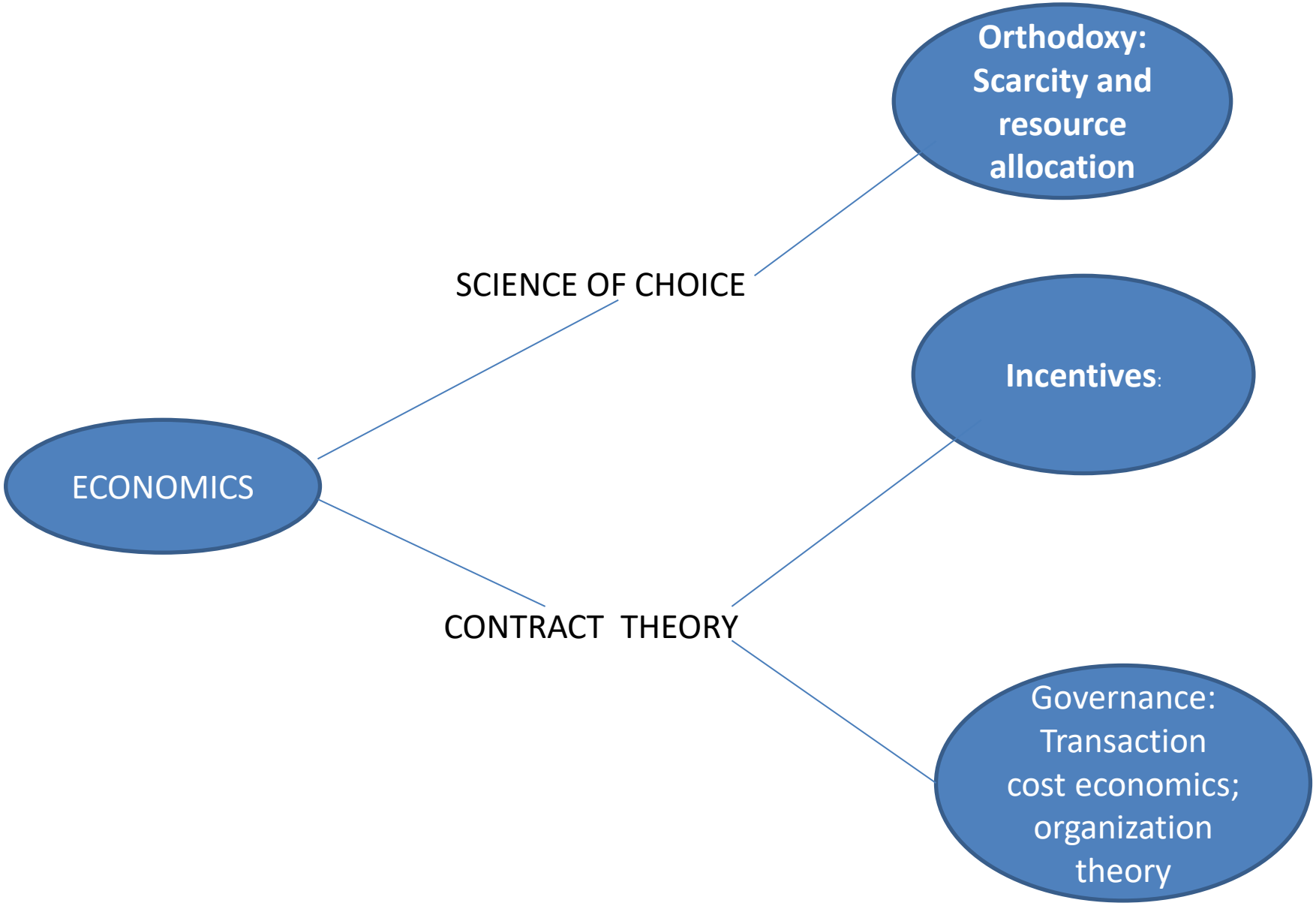
→ theory of consumer behavior

→ theory of the firm as a production function

CONTRACT THEORY

efforts by the parties to a transaction:

- to align incentives
- to design governance structure that are better suited to their exchange needs


ECONOMICS
SCIENCE OF CHOICE
CONTRACT THEORY
Orthodoxy: Scarcity and resource allocation
Incentives:
Governance: Transaction cost economics; organization theory

INCENTIVES

An eternal obstacle to human cooperation is that people have different interests.

→ well designed contracts provide incentives to exploit gains from cooperation

- Labor contracts
- Insurance contracts
- Credit contracts

Classic contracting problem

- A principal (P) engages an agent (A) to take certain actions on the principal's behalf
- The agent's action is hidden → problem of moral hazard

P: main shareholder of a company

A: the company's manager.

“The directors of such companies ... , being the managers rather of other people’s money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private company frequently watch over their own... Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company” (Adam Smith, 1776, *The Wealth of Nations*).

Paying for performance

Optimal compensation schedule must trade off incentive-provision against risk-sharing

Formal results: James Mirrlees 1975,
Bengt Holmström and Oliver Hart 1979

- P→ an employer A → a worker
- P→ a board of directors A → a CEO
- P→ a venture capitalist A → an entrepreneur
- P→ a client A → a lawyer
- P→ a regulator A → a supplier of public services

EXAMPLE:

A is a researcher

his delegated task is to develop a new technology for the P's company

Uncertainties inherent in the R&D process

→ex ante: what should the innovation be?

→ex post: what the impact on P's profits?

→ INCOMPLETE CONTRACTS

Allocation of decision rights

(Oliver Hart - Sanford Grossman - John Moore)

Decision rights are often determined by property rights

In the R&D example two possibilities:

- A (the researcher) is employed with a fixed salary by P
- A independently owns any innovation that he develops

Property rights generate bargaining power, which in turn determines incentives

Allocation of decision rights : Highly influential within corporate finance and organizational economics:

- the costs and benefits of mergers
- the distribution of authority within organizations
- whether or not providers of public services should be privately owned
- how outside owners can control a company's inside managers through the design of corporate governance and capital structure

The relevance of contract theory does not rely on agents being completely rational and selfish

The same theoretical framework is used to derive results for unselfish or boundedly rational agents, or agents with intrinsic non-material motivations

→ why and when material incentives may fail to induce desired behavior

(behavioral economics)

Asymmetric information and adverse selection problems

- The seller of a good often knows more about its quality than the prospective buyer.
- The job applicant typically knows more about his ability than his potential employer.
- The buyer of an insurance policy usually knows more about her individual risk than the insurance company.

Akerlof, Spence and Stiglitz (2001 prizewinners in economics)

- How informational asymmetries can produce adverse selection in markets (Akerlof's model of lemons)

- How informed economic agents in such markets may have incentives to take observable and costly actions to credibly signal their private information to uninformed agents (Spence's model about education as a signal)

- How poorly informed agents can extract information from those who are better informed by offering a menu of alternative contracts for a specific transaction, so-called (screening through self-selection →Stiglitz's model about Insurance companies)

- REFERENCES
- EXAM:

For students attending the course, the examination is structured in two parts:

- 30% through group works
- 70% through a final written examination (one section with multiple choice questions and **one section** with an open-ended question)

The final marking will be the weighted average of the two parts.

For students not attending the course, the exam will be as follow:

- 100% through a final written examination with one section with multiple choice questions and **two sections** with open-ended questions.

The final marking will be the weighted average of the three parts.

- ASSIGNMENTS FOR THE GROUP WORKS

- One or two
- No written paper
- Presentation one week after the assignment through slides (conceptual map of your analysis, highlighting the theories at the basis of your reasoning)
- Team of four/five persons

FREE RIDING