Organizational Theory and Decision Making

Part I: Foundations and Boundaries of Organizations

Christian Zehnder
Department of Management
HEC, University of Lausanne
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Part I: Foundations & Boundaries of Firms

Foundations

- Why do firms exist in a market economy?
  - What is the difference between firms and markets?
  - How are transactions organized in firms and markets?

Boundaries

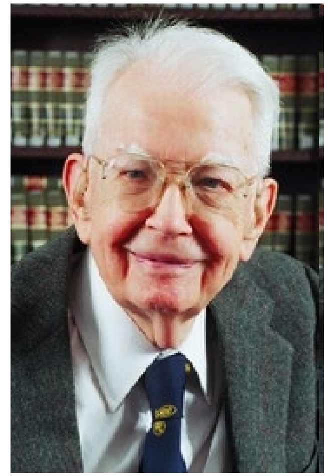
- What defines the size and the scope of a firm?
  - When should a transaction be integrated in a firm?
  - When should a transaction be outsourced to the market?

Part I.A:
Transaction Cost Economics

Video 1:
Incomplete Contracts & Specific Investments

Early Ideas: Ronald Coase

- Ronald H. Coase
  - 1910-2013
  - Nobel Prize in 1991
  - University of Chicago



  - Best known for the following two articles:

    "The Nature of the Firm“, Economica (1937)
    - Why do firms exist? What defines their boundaries?
    - How do firms differ from markets?

    "The Problem of Social Cost“, J Law Econ (1960)
    - The Coase Theorem: Efficient Bargaining

Early Theory of the Firm: Existence of Firms

- Coase (1937), page 390:

  Why do firms emerge at all in a specialized exchange economy?

  Interesting question: If markets are so great in allocating resources (as economists usually claim), why do we need firms?

- Relying on the price mechanism can be costly
  - Cost of negotiating a contract for each exchange transaction (haggling costs)
- Haggling costs are reduced inside the firm because bargaining is replaced by authority
  - An employer can tell an employee what to do (within limits)

Early Theory of the Firm: Boundaries of Firms

- Coase (1937), page 394:

  Why is not all production carried on by one big firm?

- Authority is also costly
  - Intellectual capacity of manager limits firm size
  - Manager makes more mistakes when the firm growth
- Co-existence of firm-based and market transactions
  - Costs of authority prevent firms from growing infinitely
  - Multiple firms emerge
  - Transactions between firms are market transactions

Limits of the Early Theory of the Firm

- Coase's questions are brilliant, his answers are less satisfactory
- Three major problems:
  - No level playing field for firms and markets

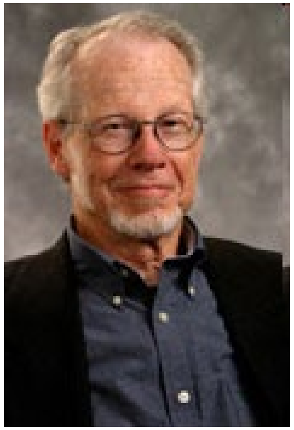
    Coase simply assumes that placing transactions inside a firm eliminates all haggling → this is a strong and unrealistic assumption.
  - Costs of using the firm are not very convincing

    Coase's argument is mainly based on the assumption of capacity constraints of managers → Why not hire additional (sub)managers?
  - Formalizing haggling costs has proven to be difficult

    Why? Because of the Coase (!) theorem. Coase (1960) implies that rational parties will avoid, or bargain around, haggling costs "in the twinkling of an eye".

Transaction Cost Economics (TCE)

- How did the theory of the firm proceed after Coase (1937)?
- Transaction cost economics
(Oliver Williamson, Nobel Prize 2009)



- Has revived some of Coase's ideas
  - Bargaining costs ("Haggling Costs") in markets
  - Bureaucracy & motivation costs in firms
- But transaction cost economics also emphasizes important new features
- In particular, it has been argued that firms can be superior to markets when
  - … the trading parties cannot write "good" contracts and
  - … relationship-specific investments are important

TCE: Problems of Complete Contracts (1)

- Textbook economics theory treats transactions as simple this-for-that exchanges
  - One party pays the other party a price *p* to obtain a product *x*
  - Both parties know all characteristics of *x* and the transaction is completed virtually instantaneously
- For some transactions this is an accurate description
  - Buying milk at Migros
  - Taking the metro to the train station
- But many transactions are much more complex than this, especially if they involve a long-term contract
  - Employment contracts
  - Hiring a lawyer to represent you in court

TCE: Problems of Complete Contracts (2)

- To see why complete contracts may be hard to achieve in many situations it is useful to come up with a definition:

Definition of a Complete Contract

A complete contract specifies precisely what each party is to do in every possible circumstance. Furthermore, it arranges the distribution of realized costs and benefits in each contingency and defines the punishment for each possible violation of contract's terms, so that each party individually finds it optimal to abide by the contract's terms.

- The contract is enforceable by court
- Complete plan of actions, distributions and punishments
- No motivation problem: Parties want to honor the contract

TCE: Requirements for Complete Contracts

- Perfect Foresight

  The parties must foresee all the relevant contingencies that arise over the duration of the contract

- Perfect Description

  The parties must be able to provide an accurate description of each possible contingency

  These description must be precise enough to ensure that the parties always know which contingency has occurred

- Perfect Communication

  The parties must be able to communicate the descriptions of the contingencies to outsiders (e.g., the court), so that also outsiders can distinguish the different contingencies

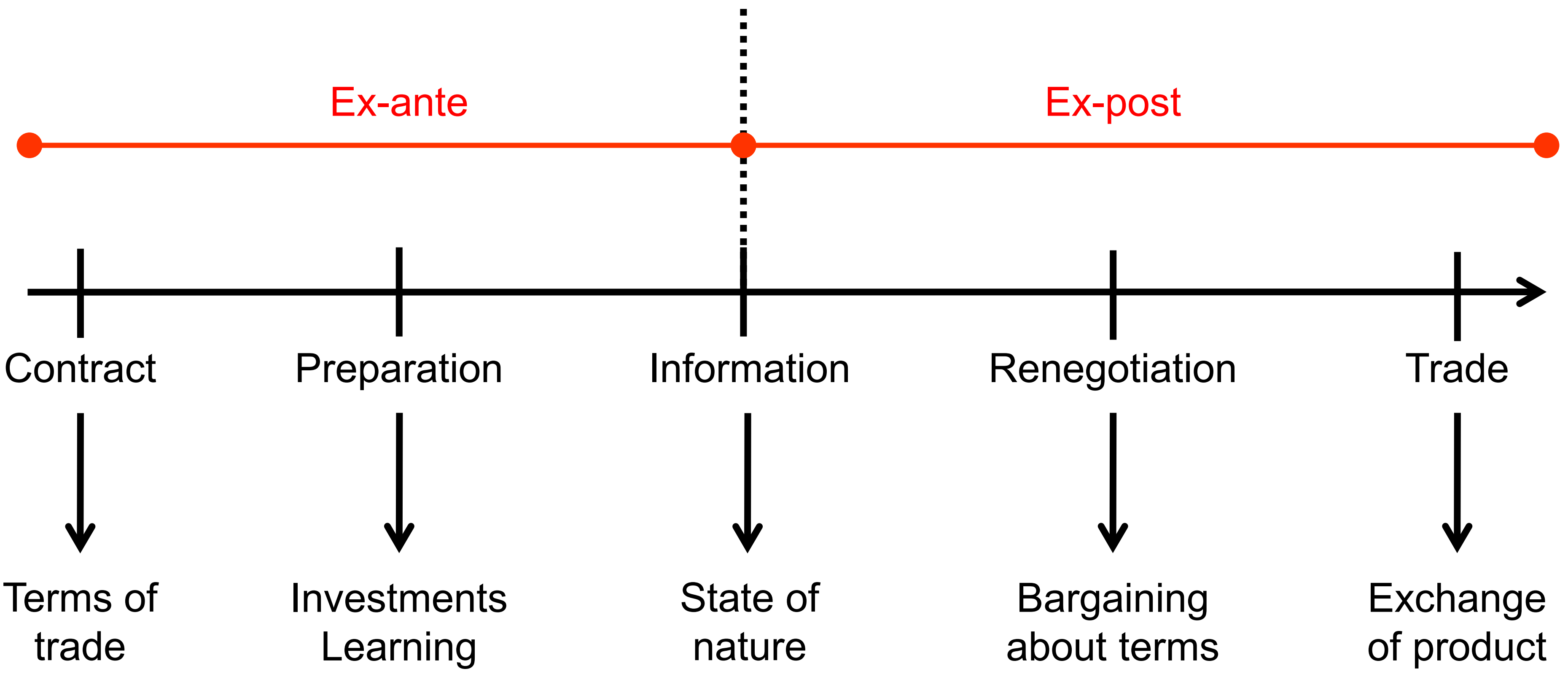
TCE: Reasons for Contractual Incompleteness

- The problem is that even in many everyday situations it is extremely hard to write a complete contract
- The reason is that the world is complex, and people are only boundedly rational (and they know it)
  - Limited foresight
    - Cannot anticipate any possible contingency
  - Limited problem-solving capacity
    - Cannot remember unlimited amounts of information
    - Limited information processing abilities
  - Limited communication abilities
    - Language is imprecise
    - Information transmission is costly and imperfect

TCE: The Need for Renegotiation

- Most contracts on non-trivial transactions are incomplete
  - Since people cannot perfectly foresee the future, these contracts are characterized by gaps and missing provisions
- Contractual incompleteness implies that contracts need to be renegotiated over time
  - As time passes, new information becomes available
  - The trading parties learn how the characteristics of their environment look like
  - In order to integrate these new insights into their relationship, the trading parties need to renegotiate and refine their contract
  - In other words: There is ex-post bargaining about the details of the contract terms

TCE: Timing of Complex Transactions



TCE: Relationship-Specific Investments

- Many complex transactions require relationship-specific investments

Definition of Relationship-Specific Investments

A relationship specific investment is an investment that is most (or even only) valuable in a specific setting or relation-ship.

- Typical examples:
  - Training in specific skills: Some skills are only (or at least especially) useful in a specific factory or firm (for example: skills in high-tech, firm-specific computer systems)
  - Machines to produce specific components

TCE: Implications of Specific Investments

- Specific investments make the investor vulnerable:

  Since the investment is only valuable in combination with the technology of the other party, the investor becomes dependent on the other party

  There is a specific rent: The value of the investment is higher inside the relationship than outside.

- Investor is in a weak bargaining position

  Once the investment is undertaken, the other party can force the investor to accept unfavorable conditions

  Since the investment is specific the investor cannot walk away (he is held-up by the other party)

Key Takeaways

- Coase: Co-existence of markets and firms
  - Using the price mechanism is costly: search and haggling
  - Authority relations in firms can help to reduce these costs
  - Not only one firm: cognitive limits of managers
- Williamson: Incomplete contracts & specific investments
  - Complex transactions imply that contracts are incomplete
    → Regular renegotiation is necessary
  - Complex transactions often require relationship-specific investments
    → Specificity makes renegotiation difficult
- Next video: The Hold-Up Problem