

## 2. Specialization and Exchange

### 1. Nature of the economic problem: Specialization advantages and exchange costs

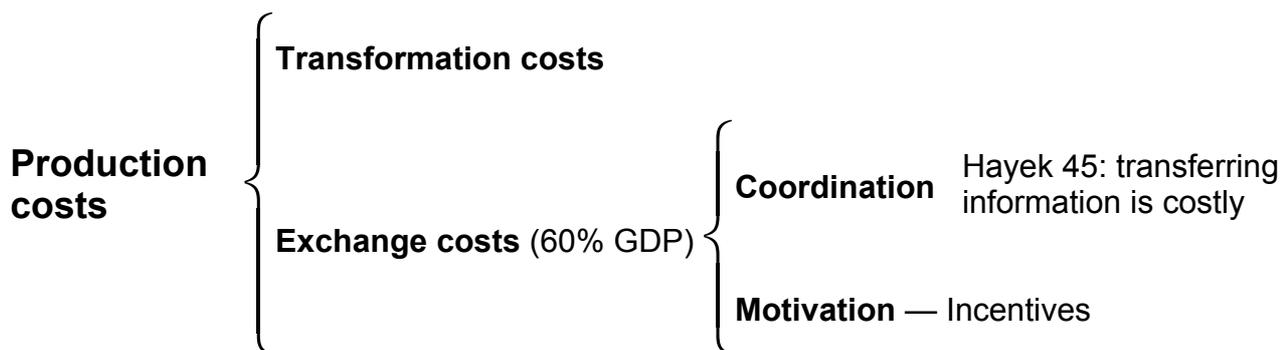
#### 1.1. Meaning of specialization

1.1.1. Comparative advantage → higher productivity

1.1.2. Origin: previous investment

1.1.3. Ambiguity of purpose of specialization

#### 1.2. Transformation and exchange costs → Figs.



#### 1.3. Promises as objects of exchange → importance of information asymmetry → default: (self-interest → opportunism) → SOLUTIONS:

a) safeguarding: “farsighted contracting” *à la* Williamson

b) commitment → screening types

c) “education”, both at social and organization levels

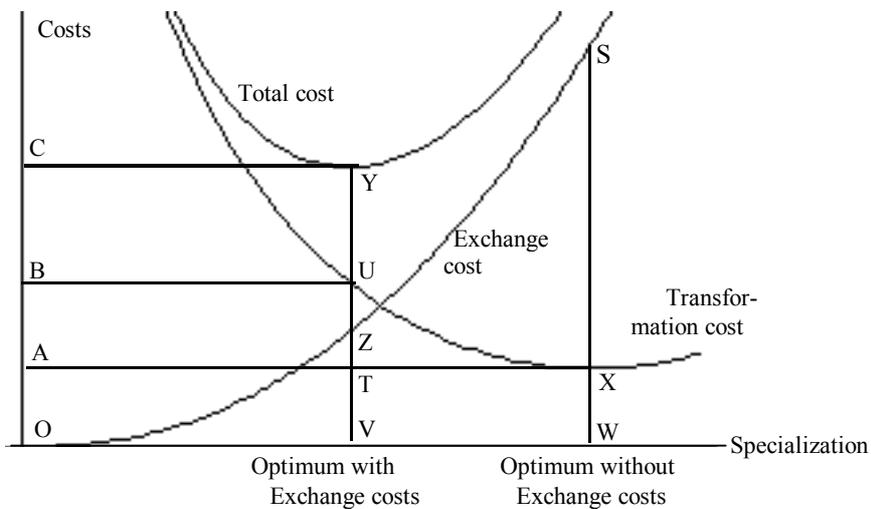
## 1.4. The costs de exchange: co-ordination and motivation

### 1.4.1. What is the economic problem in the Robinson Crusoe story?

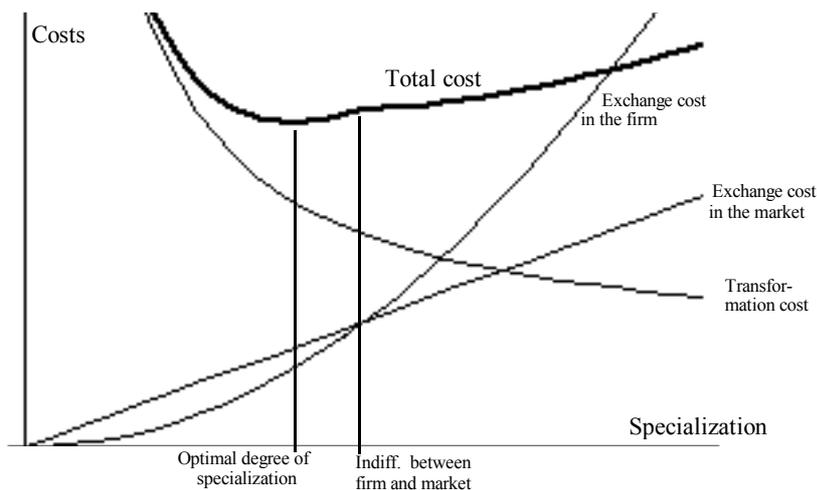
a) *Before Friday comes in? Robbins: optimization*

b) *After Friday comes in? → Hayek: information → Coase: transaction costs*

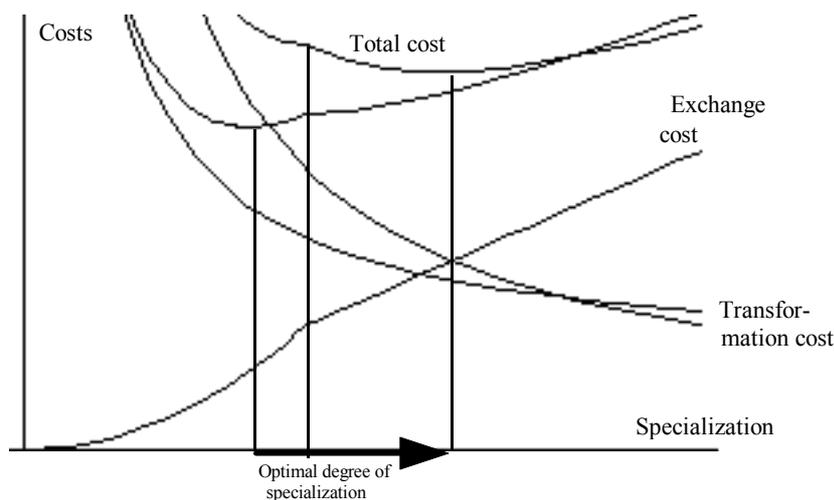
### 1.5. The costs functions: Costs of transformation and exchange as a function of specialization



### 1.6. Costs of exchange under different organizational forms



- *Organizational change as a consequence of a change in the transformation function*



## 2. General solutions to the economic problem

### 2.1. The market solution

**Price system**

**Property rights**

**Terminological note: Price system < Market**

### 2.2. The process of political decision making

**Democracy as a solution to the economic problem**

- *Centralization*
- *Representation*
- *Weighting of information* → *private costs / public benefit* → *collective actions failures*

**Socialist planning**

### 2.3. Combining market and political solutions

#### a) Coase Theorem

Example: Noisy firm causes a negative externality on neighbors.

It is reciprocal.

**Theorem:** if transaction costs are zero, initial allocation of rights does not affect final allocation or the level of activity.

With positive transaction costs → may affect both → political decisions should focus on reducing transaction costs by clear definition (clear who has them) and secure enforcement (no expropriation) of property rights

**Case 1.** (Costs and benefits in current values):

Initial allocation of rights	Profit for firm	Loss for neighbors	Firm	Compensation, $C$	Final allocation of rights
Neighbors	40	60	Closes to avoid paying compensation $60 > 40$	0	Neighbors
Firm	40	60	Closes because neighbors would compensate	$40 < C < 60$	Neighbors
Neighbors	60	40	Continues after compensating the neighbors	40 (*)	Firm
Firm	60	40	Continues	0	Firm

(\*) Assuming that the legal system considers damages as an upper limit of compensation.

**Case 2:** Both can avoid the noise—for 20€ the firm, for €18 the neighbors → optimal to avoid noise

Initial allocation of rights	Profit for firm	Loss for neighbors	Who avoids noise	When is the noise avoided	Compensation, $C$
Neighbors	40	60	Neighbors	After paying compensation	$18 < C < 20$
Firm	40	60	Neighbors	Per se	0
Neighbors	60	40	Neighbors	After paying compensation	$18 < C < 20$
Firm	60	40	Neighbors	Per se	0

In practice, reaching an agreement on the level of indemnity is subject to bargaining costs due to information asymmetries. Questions: What is the expected consequence of a greater difference between the costs and benefits (case 1) or the avoidance costs (2) of both parties? In which cases, (1) or (2), will the problem probably be worse for a given monetary difference? Answer: For case (1), if information asymmetry is greater for costs and benefits than for avoidance costs, which may be more easily observable.

**Case 3:** Firm can avoid noise for 20€ and transaction costs are 25€:

Initial allocation of rights	Profit for firm	Loss for neighbors	Does the firm avoid the noise?	Social surplus
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Neighbors	60	40	Yes (*)	$60 - 20 - 0 = 40$
Firm	60	40	No (**)	$60 - 0 - 40 = 20$

(\*) The firm has to choose between: closing, with a zero profit; avoidance, gaining  $60 - 20 = 40$ €; and continue, in which case would have to pay 40 and get a profit of 20€.

(\*\*) Negotiating is not worthwhile because avoidance costs, 20€, plus transaction of costs of 25€ give a total of €45, greater than the 40€ of damage.

**Case 4:** Neighbors can avoid for 18€ and transaction costs are 25€:

Initial allocation of rights	Profit for firm	Loss for neighbors	Do neighbors avoid the noise?	Social surplus
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Neighbors	60	40	No (*)	$60 - 0 - 40 = 20$
Firm	60	40	Yes	$60 - 18 - 0 = 42$

(\*) The firm can: close, with zero profits; continue, after paying compensation of 40€ and obtaining a profit of 20€ (assuming that neighbors would lose the indemnity if they avoid the noise). Bargaining is not worthwhile because costs ( $25 + 18 = 43$ ) are greater than damages (40). What would happen with transactions costs equal to 20€?

### **Interaction between markets and politics. Examples of political responses:**

- *Taxes and subsidies (proposal for a tax on coal)*
- *Regulation (pollution standards)*
- *Allocation of property rights (e.g., pollution rights)*
- *Reduction of transaction costs (contractible pollution rights)*

### **Public goods**

- *Conditions*
  - Non-rivalry in consumption
  - Non-excludability
- *Lighthouses in economics*

### **The commons problem**

- *Competition → Dissipation*
- *Solutions:*
  - exclusion (private or communal property),
  - regulation

- *Examples: fishing, air, pollution permits, etc.*

**Exercise: Visit [www.perc.org](http://www.perc.org) on the interaction of politics and markets in solving environmental problems**

## b) A description

Decisions	<i>Type of economy</i>		
	<i>Market economies</i>	<i>“Social market” economies</i>	<i>Planned economies</i>
What?	Purchasing decisions	Mixed according to sectors	Politics
How?	Competition amongst businesses	A mix of competition and planning	Central planning
For whom?	Factors’ Markets	Mix of market and political decisions	Politics

## c) A historical perspective on markets, politics and development—Static

Timing	19 <sup>th</sup> century	Since 2 <sup>nd</sup> 3 <sup>rd</sup> of 20 <sup>th</sup> century	
	Liberal State	“Social market” economies	Developing countries
Political systems	“Aristocratic democracy”	Mass democracy	Diverse
Rights	Negative rights: property, freedom, expression, mobility—protect citizens against themselves and, mainly, the State	Mixed: constraints of negative rights and promulgation of positive rights (housing, education, health, etc.)	Emphasis on positive rights at a low level of (a) wealth and (b) institutional development
End results	Institutional development (independent judiciary, competitive political market, civil education)	Consensus: Europe, 2000; etc.; welfare state expanded or reduced only marginally (UK, Thatcher-Blair)	Fear of expropriation: Weimar, 1920s; Spain, 1936; Chile, 1973; etc.—Bolivia?

### **3. Economic development as a case on the nature of the economic problem: interactions of markets and politics and the design of institutions. Factors of development:**

#### **Endowment of natural resources. Examples**

- The form of continents (Diamond's *Guns, Germs and Steel*)
- Determinant at a *very* long term (thousands of years)—Different terms, different factors predominate
- Some cases for discussion: Japan, Argentina, Saudi Arabia, USA

#### **Demography: fertility, mortality, migration**

- By themselves?
- Case for discussion: the Roman empire: infanticide, women's abuse, etc. versus Judaic and Christian morality based on individuals' rights, including the unborn and women, as well as giving priority to mutual help, a crucial trait for surviving on the face of plagues and urban life (see Stark' *The Rise of Christianity*).

#### **Knowledge**

- Technical knowledge (including human capital)
- Advantage: ideas are not a limited resource (Krugman)
- A label issue: Are beliefs knowledge or institutions?
- See it from biology: beliefs are part of the technological "hat" that we use to get adaptation in an environment. They often change too slowly.
- Cases for discussion: Muslim banking, without interest; or, better, sexism, which does not fit current specialization possibilities (families that now externalize much production previously made internally, such as bread, clothes, education, etc.).

#### **Institutions**

- Fashionable: "governance"—often a series of clichés without rigor. For instance: development requires "democracy" understood as 20<sup>th</sup> century parliamentarism, an anachronic idea with dubious empirical support.
- There are not substitutes: even with resources sustained development needs institutional support: Arabia, Argentina
- Cases for discussion:
  - International aid: famines driven by aid; helping the rich in poor countries, etc. Aid versus trade liberalization
  - English versus Spanish English colonies
  - Common versus Civil Law (Shleifer *et al.*)

## **4. Organizational solutions to the economic problem: The nature of the firm**

### **4.1. Organizations as exchange mechanisms**

#### **4.1.1. The nature of organizations: nexus for a set of exchanges**

#### **4.1.2. Why do organizations (firms) exist? Where does the comparative advantage of organizations come from?**

- *4.1.2.1. The role of transaction costs—but market exchanges too*
- *4.1.2.2. Other explanations:*
  - *economies of scale—but may be contracted—example: trucking: intermediaries reach economies of scale and network, specially with respect to returns, but they contract in the market with owner-operators*
  - *risk—also contractible*
- *4.1.2.3. Comparative advantage? It depends:*
  - In motivation, developing better safeguards to reduce motivation-related exchange costs. (Example: in trucking, intermediaries are superior to market coordination because they safeguard exchange better).
  - In coordination .... # to be develop

#### **4.1.3. The cost of exchange is common to organizations and markets**

- *4.1.3.1. A familiar example:*
  - babysitting by older child or by hired person → different exchange (coordination and motivation) costs are present in each solution, but both are positive in both cases
- *4.1.3.2. “Make or buy” decisions in a firm*

#### 4.1.4. Main contractual relations in the firm:

Economic relations		Specialization advantages	Conflicts and exchange costs	Solutions, Palliatives and safeguards
Commercial	Intermediate goods	Originated in the transformation process	Expropriation of specific assets	Vertical Integration
	Final goods		Quality assurance	Long term Contracts
Labor	Team Production	Interaction within the team	Free riding	Residual remuneration of control tasks
	Agency and delegation	Specialization of principal and agent	Suboptimal effort, rent seeking activities	Pay for performance
Financial	Credit	Provision of capital resources	Insolvency	Collateral
	Companies	Risk bearing	Collective action	Relational contracting
	Management	Management tasks	Suboptimal effort	Corporate control market
		Risk bearing	Diversification	
Cooperative	Lack of specialization (workers are also capitalists and exert control)		Palliatives opposed to the cooperative structure	

## 4.2. Comparison of organizations, markets and politics

### 4.2.1. Decision making in organizations

- *Contractual origin (similar to market)*
- *Contractual asymmetry (e.g., labor) ← parties have different reputational capital*
- *Centralization of decisions*
- *Legal fiction:*  
with  $n$  participants,  $n(n-1)/2$  are needed in the market,  $n$  in a firm.

### 4.2.2. Differences between organizations and markets

- *Delegation → control by an artificial system:*
  - *decision rights instead of property rights*
  - *lesser role of prices*
- *Organizations as an outcome of contracts in the markets*
- *Contractual economies of scope:*  
E.g., reputation used in many different contractual relations  
Example: non-audit services provided by financial auditors

### 4.2.3. Organizations born in the market and in politics

- *Difference: extent of voluntary contracting, lower in those born in politics (e.g., National Health System, Iberia)*
- *Firms are not planned economies because:*
  - *created by market decisions*
  - *survived is they satisfy market criteria**BUT both aspects are influenced by politics (e.g., subsidies)*

## 4.3. How Microeconomics deals with organizations

### 4.3.1. Abstraction as scientific tool: Uses and abuses

### 4.3.2. Parallel between consumers (families) and firms

## 4.4. Applications

- *Think in concepts as tools:*

### 4.4.1. The concept of “boundary” in firms and markets

- *Market’s boundaries? → Useful to study the economy*
- *Firm’s boundaries? → Useful to study the market*

### 4.4.2. The concept of “objectives” of the firm

- *The same: firms have not objectives, they reach equilibrium, firms are more like markets than individuals*
- *Strategic management:*
  - *normative: what “the firm” should do?*
  - *positive: why the firm is behaving in a certain way?*

### 4.4.3. Profit maximization as a *constraint*, no as an objective

- *Are firms “rational”? Do they commit suicide? Why?*

## 5. Examples and cases on the nature of the firm

McDonald’s; trucking → taxis; construction, ...

‘Dodotis’: Firms *are not* necessarily the *relevant competitive unit* for competition policy? (Below)



## WHY NOT A CLASSICAL MARKET EXCHANGE?

(Based on Williamson 1985 pp. 23 ff)

### Two kinds of answers to explain Nonstandard contracting:

- *Theories focusing on monopoly*
  - 1. Studying the impact on buyers
    - 1.1. Leverage: to extend monopoly power generally downstream
    - 1.2. Price discrimination: to cash in monopoly power (Stigler's account of block-booking)
  - 2. Studying the impact on rivals
    - 2.1. Entry Firmriers: to extend monopoly power by making entry difficult (Bain)
      - Standard production-function (black box) framework of the firm
    - 2.1. Strategic behavior: to extend monopoly power by raising rivals' costs (new IO)→IO
- *Theories focusing on efficiency (Differences according to the concept of contract they use )*
  - 3. Ex ante incentive alignment
    - 3.1. Property rights
    - 3.2 Agency, which might be divided in
      - 3.2.1. Principal-Agent: Really *ex ante* incentive alignment
      - 3.2.2. Positive: integrative, w. a lot in common with 3.1 and 4.2
  - 4. Transaction cost minimization
    - 4.1. Governance (Williamson)
    - 4.2. Measurement (A&D)

**Alternatively**, the concept of contract is increasingly broader in this order:

- 3'. *Ex ante* incentive alignment assuming zero cost of contract enforcement: Mechanism design theory —>
  - > efficient incentives (Markets and Organization II)
- 4'. Minimization of transaction costs through *contractual patterns* —>
  - > efficient structuring
- 5'. Minimization of transaction costs through “governance structures” —>
  - > relational contracts

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