Law and Economics
Session 6
Bargaining and the Coase Theorem

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Bargaining Theory

- Theory about how individuals bargain.
- Any reasonable theory of bargaining predicts that (1) when there are clear property rights and (2) zero bargaining cost, individuals bargain "efficiently."
- Nash Bargaining Solution ("Cooperative solution" in the text book) predicts additional that individuals "split the surplus relative to their status quo payoffs."

Example

- Adam has a car he values at \$3,000.
- Blair values it at \$5,000.
- Status quo payoffs:
    - A = \$3,000
    - B = \$0.

Example

- Who should own it? ("efficiency")
- A owns ("no transfer")
  - Social value = ?
- B owns ("transfer")
  - Social value = ?
- What does efficient bargaining mean?

Example – Nash Bargaining Solution

- Nash Bargaining Solution:
  - Adam sells the car to Blair at $p =?$
  - Blair receives from bargaining $U_B =?$
- Notice the two properties:
  1. efficient bargaining
  2. split the surplus relative to the status quo payoffs.

Coase Theorem

- Given negligible transaction costs, the initial allocation of property rights does not affect efficiency. The efficient outcome will arise through voluntary negotiation, given **any** "well-developed property right allocation."

Coase Theorem Explanation

- How does the Coase Theorem work?
  - Pareto Optimality

Coase Theorem Example

- Facts: Cattle can wander into the farm and damage \$100. Putting a fence (around the ranch) costs \$50 to the rancher; putting a fence around the farm costs \$150 to the farmer.
- Issue: How broad should the farmer's right be?

Rancher-Farmer Regimes

- Assume that there are two possible legal regimes:
  - **Ranchers' rights**: cattle ranchers have no legal duty to supervise their cattle. Therefore, if their cattle cause damage to someone else's property, the ranchers are not liable for compensation to the injured property owner.
  - How is this a "narrow rights" regime?

  - **Farmers' rights**: if a farmer suffers damage from trespass to his property, he is entitled to compensation to make him whole. Trespassers are liable for the damage that they do.
  - How is this a "broad rights" regime?

Case 1: Individuals cannot bargain

- Who builds a fence?
  - Rancher's right
  - Farmer's right

Case 2: Low-cost bargaining

- Who builds a fence?
  - Rancher's right
  - Farmer's right

Another Example

- New set of costs and benefits:
  - Cattle can wander into the farm and damage \$100.
  - Putting a fence around the ranch costs \$150 to the rancher
  - Putting a fence around the farm costs \$50 to the farmer.
- The farmer building the fence is efficient now.

Outcomes

- Under new cost structure who builds a fence?
- No bargaining:
  - Rancher's rights
  - Farmer's rights
- Low-cost bargaining:
  - Rancher's rights
  - Farmer's rights

"Super Farmer's Rights"

- Imagine a legal regime in which Farmer is entitled to receive treble damages ($300) if the cattle trample the crops.
  - What will occur in this circumstance?
  - Will the rancher build a fence?
  - Will there be the same outcome as if, given these new costs and benefits, other legal regimes were in force?
- The outcome is the same, as the Coase Theorem suggests.

Coase Theorem with Wealth Effects

- In previous discussions we said that the outcome was the **same** regardless of the legal regime.
- It's more accurate to say that there will be an **efficient** outcome regardless of the legal regime.

- Why might the outcomes be different, but efficient?
  - A legal entitlement makes its recipient more wealthy, so there are wealth effects of how we assign a legal entitlement
  - Demand changes as wealth changes.

  - Suppose that with "Farmers' Rights" farmers become more wealthy – they become ranchers and need to build fences themselves.

Coase Theorem and "Most Valuable Use"

- Alternative interpretation of the Coase Theorem:
  - When transaction costs are zero, the more valuable use will prevail, regardless of the law.
- What are the competing uses in our Rancher-Farmer example?
- Which of those values is greater? Did that value prevail?

Implications of the Coase Theorem

- The Coase Theorem highlights the importance of figuring out:
  - when voluntary bargaining can solve problems of moving resources to their highest-valued use, and
  - when it cannot do so.
- The significance and structure of transaction costs are extremely important in designing laws:
  - Law can assist private parties to make efficient use of resources when transaction costs are so high as to prohibit bargaining.

Relevance of Subjective Valuations

- Another benefit of determining outcomes by voluntary bargaining is that individuals' subjective valuations of various goods and activities are protected.
- Even if the government wanted to assign rights to their highest value, it might not know that because it only knows market values, not subjective values.

Factors determining transaction costs

- The number of people involved.
  - The fewer the number of transactors, the lower the transaction costs.
  - Reduce transaction costs by organizing people into bargaining groups with a representative.
- Homogeneous (or fungible) versus unique or hard-to-replace goods and services.
  - Transaction costs are generally lower when there are many competitors selling the same good and higher when there is only one or a few selling a unique good (one with no substitutes).

Factors determining transaction costs

- The timing of the transaction.
  - Spot (or immediate) transactions generally have lower transaction costs than transactions that will take place at some future date but about which the parties agree today.
- The complexity of the transaction.
  - Many steps in the completion of the transaction or is it a simple matter?
  - Will someone have to bear extensive monitoring costs to see if the terms and conditions have been scrupulously adhered to?
- Aside from these general factors, transaction costs are to be determined on a case-by-case basis.

Transaction costs versus preferences

- Keep the categories of "transaction costs" and "tastes and preferences" apart.
  - Transactions can fail because there is no cooperative surplus, even if transaction costs are zero.
  - Do not infer that a failure to transact necessarily means that transaction costs are high.
- Transaction costs are, generally, objective factors about the circumstances surrounding a potential transaction.
- Tastes and preferences are subjective (internal psychological) factors of the parties.