ECON 522 - SECTION 2 - COASE THEOREM AND TRANSACTION COSTS

I Coase Theorem

The point of the Coase Theorem is that *if there are no transaction costs*, then as long as property rights are well defined and tradable, then for *efficiency* it doesn't matter who owns property rights initially; people will trade with each other until the individuals who value certain property the highest own that property (this is exactly the intuition behind Adam Smith's "invisible hand" of the market). However, even with zero transaction costs, who has initial property rights definitely matters for distribution; if I own a car that you value more, I will sell you the car and earn a profit, but it is just as efficient for you to own the car in the beginning and reap the entire surplus, leaving me with no wealth.

II Transaction Costs

Think of transaction costs as anything that makes it difficult to trade, or as any cost you have to pay that you're not exchanging for something you value. For example, if you want to buy a car you have to find someone to buy it from. Searching for a seller is a real cost, but you don't really gain any value from paying that cost; you would have had higher net utility making the same purchase if you didn't have to search for a seller. There are three cost categories:

- Search: you have to find someone to buy from, educate yourself about a product, etc.
- Enforcement: there must be ways to enforce the laws governing property rights and exchange.
- Bargaining: this seems to be most relevant for our class.
  - Private information is when individuals have secret but symmetric information, such as their own valuations.
  - Asymmetric information is when one individual has more/less information than the other. Both of these situations can lead to inefficiency. Remember the lemon example, but there are "lemon laws" that try to deal with this kind of problem.
  - Uncertainty about the law and property rights can be a problem, but one way to reduce this transaction cost is by relying on *precedent* in rulings.
  - Large numbers of people can also lead to problems. Remember the smoking ban example: as far as the Coase Theorem is concerned, who has smoking rights is irrelevant for efficiency, but since there would be many people involved in any negotiation for smoking rights in a public area, it may be more efficient for the government to try to give the rights to the people who value them most (a *normative Hobbs* approach).

Example from class: Take a look at the example from class with the electric plant and the laundromat. The story is that the electric company pollutes, and the pollution reduces the laundromat's profits from \$300 to \$100. Meanwhile, the electric company has profits of \$1000. In order to stop the pollution, either the electric company can install filters on its smokestacks, at a cost of \$500, or the laundromat can install filters in its vents at a cost of \$100. Look at the notes to see the payoffs.

Things to note:

- The electric company prefers the world where it has the right to pollute, but after that it prefers the world in which it has to pay damages rather than the world in which the laundromat has an injunction right to shut down the plant. The reason is that having to pay damages gives the electric company more options versus facing an injunction; it can choose to pollute and pay damages, or install the filters itself, or negotiate to have the laundromat install filters. When facing the injunction it can only negotiate or install the filters (or shut down).
- The laundromat prefers the world in which it has the injunction right to the world in which the electric company must pay damages. This is for the exact same reason that the electric company prefers the opposite.
- As Coase explains, as long as the two parties can negotiate, and transcation costs are low, the efficient outcome results (in this case any outcome with \$1200 total profit is efficient). The reason is that no matter what, the laundromat will install filters in the efficient situation: if the polluter has rights to pollute, the laundromat will install filters at cost to itself, and if there are injunction/damages rules, then the electric company will realize that it's cheaper for the laundromat to install filters, so it will pay the laundromat to do so and give it some extra money to ensure that the laundromat agrees.