

# Coase Theorem

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# Property Rights

The concept of property rights needs to be explained prior to the explanation of Coase Theorem.

Property rights are the legal rules that describes what people or firms may do with their property. For example, if one has property rights to land, he/she may build on it or sell it and are protected from interference by others.

If property rights are well specified then economic efficiency can be achieved without government intervention when externalities affects relatively few parties

# Coase Theorem

Coase theorem which was put forward by Ronald Coase states that when parties can bargain without cost and to their mutual advantage, the resulting outcome will be efficient regardless of how property rights are specified. The theorem requires that the property rights are well specified.

# Economic Efficiency and Bargaining

Economic efficiency and bargaining can well be explained by a numerical example:

**Table 1: Profits under Alternative Emissions Choices(Daily)**

	<b>Factory's Profit (Rs)</b>	<b>Fishermen's Profit (Rs)</b>	<b>Total Profit (Rs)</b>
No filter, treatment plant	500	100	600
Filter, No treatment plant	300	500	800
No filter, treatment plant	500	200	700
Filter, treatment plant	300	300	600

# Contd....

- In the table it is shown that a factory effluent reduces fishermen's profit. This negative externality to the fishermen can be minimised either when factory install a filter system or fishermen install water treatment plant.
- The efficient solution maximises the joint profit of the factory and fishermen

# Explanation of the Table

If the factory has the property right to dump effluent into the river. In initial conditions, the fishermen's profit is Rs100 and the factory is Rs 500. By installing a treatment plant, fishermen can increase its profit to Rs 200 and the joint profit is Rs 700. Further the fishermen is willing to pay Rs 300 to the factory to install a filter. Because the factory loses only Rs 200 in profit by installing a filter, it will be willing to do so because it is more than compensated for its loss. In this case both parties gain by cooperating.

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Table 2: Bargaining with Alternative Property Rights

<b>No Cooperation</b>	<b>Right to Dump (Rs)</b>	<b>Right to Clean Water (Rs)</b>
Profit of factory	500	300
Profit of Fishermen	200	500
<b>Cooperation</b>		
Profit of factory	550	300
Profit of fishermen	250	500

# Explanation of the Table

Supposing that the factory and the fishermen agree to split gains equally by having the fishermen pay the factory Rs 250 to install and filter. As the table shows this bargaining solution achieves efficient outcome. In the column right to dump, without cooperation the fishermen earns a profit of Rs 200 and the factory Rs 500. With cooperation the profit increases for both by Rs 50. Further if the fishermen are given the right to clean water, the factory earns a profit of Rs 300 and the fishermen Rs 500. As neither party can be made better off, the factory will install the filter which is efficient.





Thank You