

AAE101: Intro to Ag. & Applied Econ.

Discussion Section 4

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Today's goal

- Understand market failures and externalities.
- Relate market failures and externalities to supply, demand, and equilibrium.

Market Failures

Demand-Side Market Failure: Situation in which demand curves do not reflect consumers' full willingness to pay for a good or service.

Supply-Side Market Failure: Situation in which supply curves do not reflect the full cost of producing a good or service.

Consumer Surplus: The benefit surplus received by a consumer or consumers in a market.

Producer Surplus: The difference between the actual price a producer receives (or producers receive) and the minimum acceptable price that a consumer would have to pay the producer to make a particular unit of output available.

Deadweight Loss: An efficiency loss.

Externality: When some of the costs or benefits of a good or service are passed onto or "spill over to" someone other than the immediate buyer or seller.

The **Optimal Reduction of an Externality** occurs when society's marginal cost and marginal benefit of reducing that externality are equal ($MB = MC$).

*This handout is based on the corresponding handouts from previous years by Felipe Parra Escobar, Matt McKetty & Talita Silva. Modifications and additions in this version by Erick.

More on externalities

Externalities are a source of market failure. It is a cost or benefit accruing to a third party external to the market transaction. For instance, in food production, farmers usually use fertilizers in their fields, which could contaminate water streams and affect several communities. Where there are externalities, the market price usually does not incorporate all the costs/benefits associated to it. This implies that there would be overproduction or underproduction of the good in the market.

When there is a negative externality, there are costs to the society that either the producers or the consumers are not considering. For example, in food production, farmers do not incorporate in their costs the contamination of water streams with fertilizer. In the hypothetical case farmers take into account this cost, the supply curve shifts to the left. Therefore, in the presence of negative externalities, the market produces more of the good than what is desired by the society. Since there is an overproduction of the good, there is an efficiency loss generated by the externality (also known as deadweight loss).

Information problems

Assymmetric Information: Occurs when one party to a transaction possesses substantially more information than the other party. It causes scarce resources to be allocated inefficiently.

Moral Hazard: It is the tendency of one party to a contract or agreement to alter her or his behavior, after the contract is signed, in ways that could be costly to the other party.

Adverse Selection: When information known by the first party to a contract or agreement is not known by the second and, as a result, the second party incurs major costs.