Econ 1115: Principles of Macroeconomics

Lecture 6: Market Failure and Government

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Outline

1. Review
2. Market Failure
    - Externalities
    - Public goods
3. Taxes

If Iowa's opportunity cost of corn is lower than Oklahomas opportunity cost of corn, then

a. Iowa has a comparative advantage in the production of corn.
b. Iowa has an absolute advantage in the production of corn.
c. Iowa should import corn from Oklahoma.
d. Oklahoma should produce just enough corn to satisfy its own residents' demands.

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c. Iowa should import corn from Oklahoma.
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Answer: a: Iowa has a comparative advantage in the production of corn.

Market Forces and the Invisible Hand

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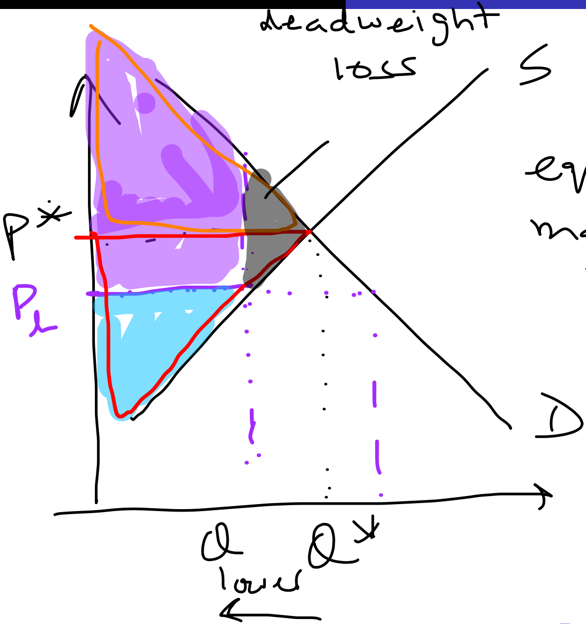
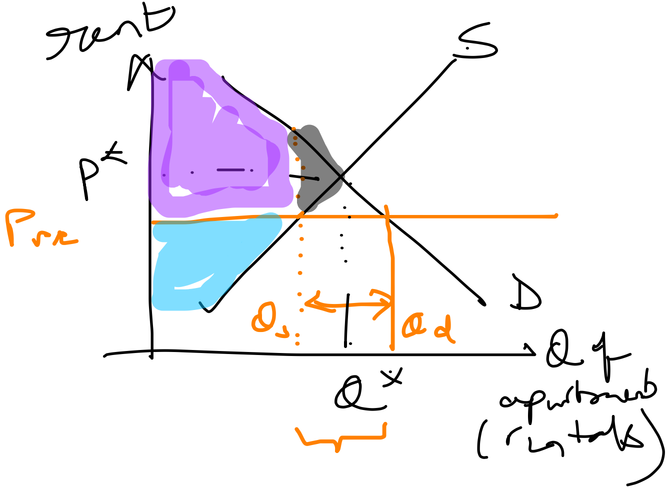
- Leads to the best outcome
- Economic efficiency
- Competitive free markets is thus usually the best way to organize economic activity



eq. price maximizes TS

Governments can intervene in a market if it feels that the market is not functioning as it is supposed to, or if it wants to make it more equitable. One way the government can regulate a market is using price controls.

- Price ceiling



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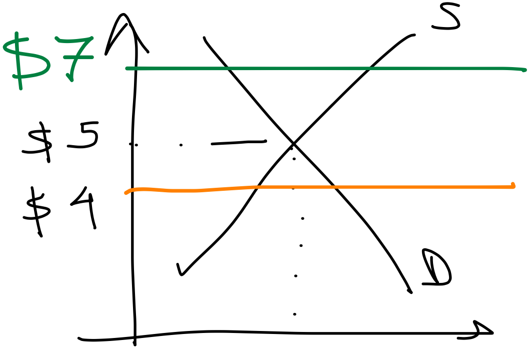
- Price ceiling
- Price floor



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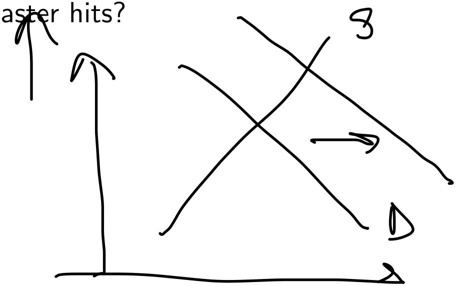
- Price ceiling
- Price floor
- Does it bind?

Efficiency, Price gouging and Uber surge pricing in Massachusetts

- Prices in the free market adjust to clear the market, allocate scarce resources and is efficient. But is it always fair? What about when a disaster hits?



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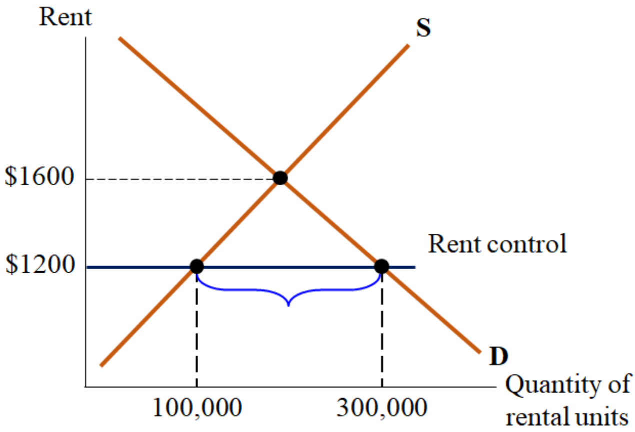
- Prices in the free market adjust to clear the market, allocate scarce resources and is efficient. But is it always fair? What about when a disaster hits?
- Surge pricing and Uber
- Mass state laws passed forbid driving up prices during a declared state of emergency
- Thus Uber is being investigated for surge pricing during the last snowstorm in March

Other applications

- Rent control
- Minimum wages
- Turing Pharmaceuticals and the Pharma Bro

Rent control



Rent control

- Price ceiling

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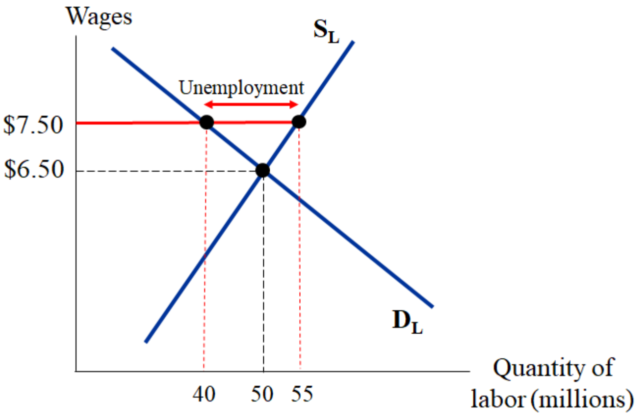
Minimum wages



Minimum wage law

- Price floor

Minimum wage law

- Price floor
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Minimum wage law

- Price floor
- May create more unemployment
- Conflicting research results, and many economists still support minimum wage laws.

Turing Pharmaceuticals and Pharma Bro

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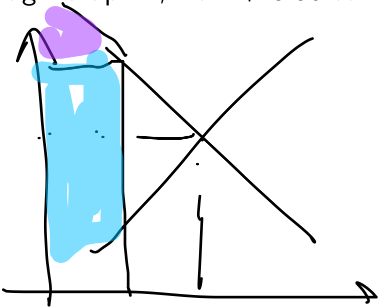
- Raises price of antiparastic drug Daraprim, from $13.50 to $750



Turing Pharmaceuticals and Pharma Bro

- Martin Shkreli, CEO
- Raises price of antiparastic drug Daraprim, from $13.50 to $750
- Patents give a legal monopoly, but even with exclusive licensing (without a patent) you can create a monopoly.

Price controls are usually enacted

a. as a means of raising revenue for public purposes.

b. when policymakers believe that the market price of a good or service is unfair to buyers or sellers.

c. when policymakers tax a good.

d. all of the above are correct.

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d. all of the above are correct.

Answer: b. when policymakers believe that market prices of a good or service is unfair to buyers or sellers.

The particular price that results in quantity supplied being equal to quantity demanded is the best price because it

a. maximizes costs of the seller.

b. maximizes tax revenue for the government.

c. maximizes the combined welfare of buyers and sellers.

d. minimizes the expenditure of buyers.

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Answer: c. maximizes the combined welfare of buyers and sellers.

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- Forces of supply and demand allocate resources efficiently
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- No externalities aka the economic activity only affect the buyers and sellers
- If these assumptions do not hold, markets may no longer be the most efficient solution.

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If those earlier assumptions don't hold and the free market no longer leads to the most efficient outcome, we call it "Market Failure".

Markets fail because of

- Market power

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- Market power
- Externalities
- Public goods
- Asymmetric information (but we won't get into this)

Externalities

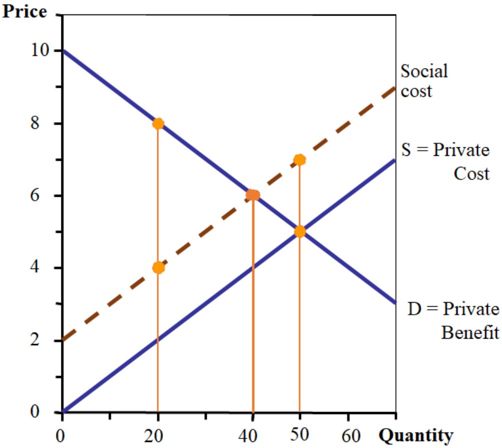
When a transaction or an economic activity affects someone who is neither the buyer or the seller (not a market participant).

- The presence of externalities leads to market failure
- Does not lead to optimal social outcome (maximum social welfare or well-being)
- Can be positive or negative.

Imagine a benevolent social planner who knows best.

- Supply curve shows private cost
- Demand curve shows private benefit or value
- Social cost = Private cost + Negative externality
- Social benefit = Private benefit + Positive externality

A negative externality is **a cost** incurred by an economic agent who is neither the buyer or seller, but rather a 3rd party.



Examples of negative externalities

- Air and water pollution from a neighboring power plant.

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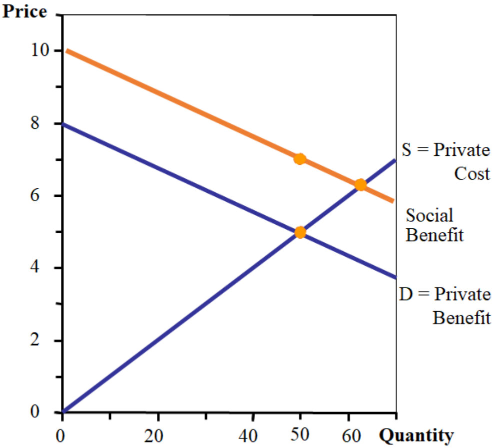
- Drunk driving

A positive externality is a benefit enjoyed by a 3rd party, who is neither the buyer nor seller in a given transaction.



Examples of positive externalities

- Education

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- Education
- Vaccination

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- Planting trees in your garden/backyard

Examples of positive externalities

- Education
- Vaccination
- Planting trees in your garden/backyard
- Beekeeping

Public Goods

Public goods are non-rivalrous and non-excludable.

	Excludable	Non-excludable
Rivalrous	Private goods	Common goods
Non-rivalrous	Club goods	Public goods

The "free-rider" problem

Examples of public goods

- Fireworks

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- Clean air

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- Fireworks
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- Government statistics

Examples of public goods

- Fireworks
- Clean air
- Government statistics
- Lighthouses

Which of the following is an example of the free-rider problem?

a. Both JD and Turk receive low-cost dental care at the local dental school, so neither of them pays the full cost of the care.

b. Andy owns Champion, a large three-legged dog who barks whenever anyone walks near his house. Leslie lives next to Andy, and Champion's barking can be heard whenever anyone walks near her house, too. Thus, Leslie receives free protection from burglars because of Champion's barking.

c. Kimmy purchases a hot dog at Five Guys and gets a second one for free because the restaurant is having a buy one, get one free sale.

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Answer: b

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- In the case of negative externalities, a tax can be imposed on the consumption or production of the good
- Alternatively taxes can be imposed on income.
- Ideally, the tax revenues are then used to compensate or clean up after the externalities.

Subsidies

When markets fail in the presence of positive externalities, governments can intervene by providing subsidies.

A positive externality essentially means the free-market equilibrium quantity is too low.

Regulations

Instead of taxes or subsidies, the government can also enact new regulations.

Economists prefer taxes and subsidies over regulation.

Suppose that flu shots create a positive externality equal to \$8 per shot. Now if government offers a \$12 per shot subsidy to producers, what is the relationship between the equilibrium quantity and the socially optimal quantity of flu shots produced?

a. They are equal.

b. The equilibrium quantity is greater than the socially optimal quantity.

c. The equilibrium quantity is less than the socially optimal quantity.

d. There is not enough information to answer the question.

Externalities

Quantity	Private Value	Private Cost	External Cost
	$	$	$
1	14	10	2
2	13	11	2
3	12	12	2
4	11	13	2
5	10	14	2
6	9	15	2
7	8	16	2

What is the market equilibrium?
What is the socially optimal equilibrium?