

Lecture 11: Government Intervention in Competitive Markets

Monday's classes next Tuesday:
No EC101 DD/EE Lectures or
Discussion Sections



Clicker Question

Social Surplus and Deadweight Loss (*DWL*)

- Social Surplus (*SS*) is the sum of Consumer Surplus (*CS*) and Producer Surplus (*PS*).

$$SS = CS + PS$$

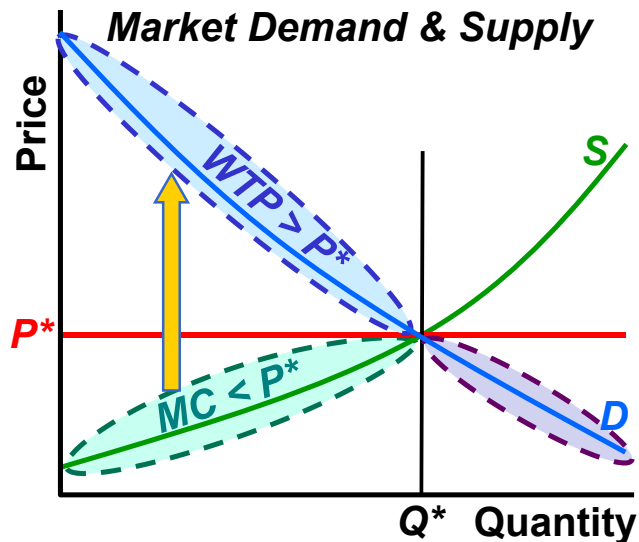
- In ideal conditions, perfect competition creates the maximum possible social surplus.
- However, market imperfections or government intervention can reduce the social surplus to a level below the maximum.
- In that case, the social surplus that is missing is called the deadweight loss (*DWL*).

Free Markets: Allocation with Prices

- Every economic system has a process for deciding on the allocation of goods and services (who gets what, who does the work).
- In a free-market system, this is normally done with prices.
- If the system is competitive, using prices will maximize social surplus.
- Of course the results may not be equitable or the markets may be socially undesirable,...
- ...so governments may decided to intervene into the market even if *DWL* is created.

Review: Social Surplus at Equilibrium Prices

- When goods are allocated with equilibrium prices P^* ,
- consumers with $WTP > P^*$
- acquire goods with $MC < P^*$.
- Consumers with WTP less than prices do not acquire any goods.
- Allocation with prices maximizes surplus, because the competitive-equilibrium quantity Q^* is produced,...
- and goods with the lowest MC go to consumers with the highest WTP .



Dissatisfaction with Market Outcomes

- Free markets are very good at creating surplus and reducing deadweight loss,...
- ...even when they deviate from the perfectly competitive model.
- But sometimes free markets fail (e.g. economic crisis of 2008-10),...
- or they may produce unacceptable results.
- Free-market economies may have outcomes that seem unfair (inequitable), because free markets may yield
 - many poor people who lack basic necessities, or
 - individuals receiving more (or less) than they deserve.

- Also, in many cultures, some markets are thought to be socially undesirable (repugnant):

- heroin, cocaine, alcoholic beverages
- prostitution
- body parts
- babies
- babysitting (??)



Alvin Roth, awarded Nobel Prize in Economics in 2012, figured out how to distribute kidneys without markets.

- For the opinion of a free-market supporter, read Alex Tabarrok on the subject [*Course Schedule*].
- Most economists think that some interference with markets is necessary,...
- but we believe that policymakers should be cautious about doing so, because of efficiency loss.

Government Intervention

- Can government intervention into competitive markets create outcomes that are more acceptable to members of society?
- Common forms of government intervention:
 - price controls
 - nonprice rationing
 - taxes and subsidies applied to specific goods and services
 - income and wealth redistribution

Price Controls

- Large groups of people are often unhappy with the market-equilibrium price.
 - Farmers, when the price of corn is too low.
 - Renters in New York City, when apartment rental prices are too high.

- In the past, consumers have become violent when the prices of bread and other food items was too high.



- In such situations, governments may intervene to place **upper limits** or **lower limits** on prices.

Types of Price Control

- Price Ceiling (effective if *below* the equilibrium price)
 - A government-set **maximum** price
 - **Example:** rent control
- Price Floor (effective if *above* the equilibrium price)
 - A government-set **minimum** price
 - **Example:** legal minimum wages
- In the past, these were common market interventions, even in wealthy countries,...
- ...but they are much less common these days.
- Now, in 2019 rent controls are again being considered for Massachusetts cities and towns.

Example: Controls on Housing Prices

- When apartment rental prices are too high, or rise too quickly, local governments sometimes impose **“rent controls.”**

IMP-P22 (1-65)
**TENANTS IN THIS AREA
ARE PROTECTED BY
OPA RENT CONTROL**

***If you have questions about
your rent call or write
your nearest OPA office***

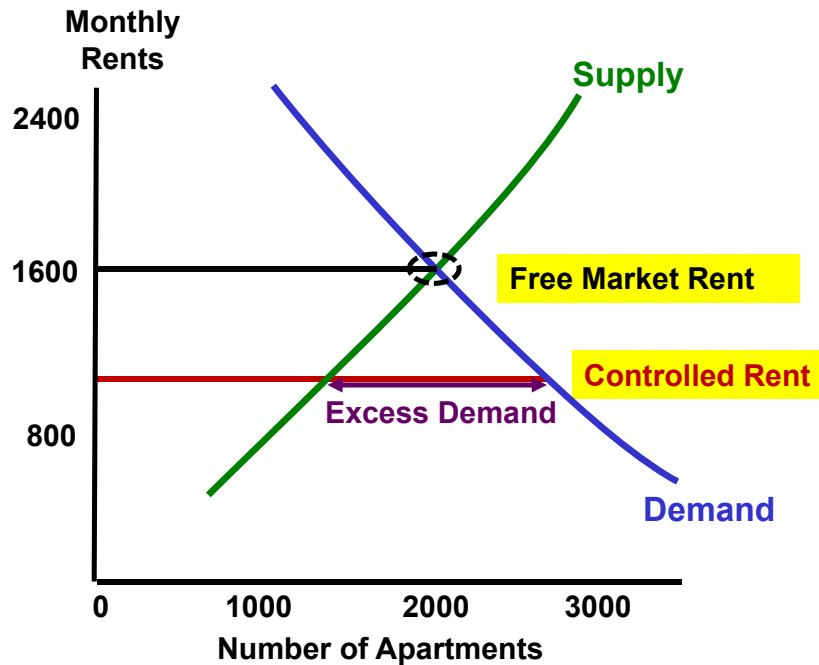
U. S. OFFICE OF PRICE ADMINISTRATION

**RENTS FOR MOST HOMES, APARTMENTS,
ROOMING HOUSE AND HOTEL ROOMS HAVE
NOT GONE UP IN ALMOST 3 YEARS**

DISTRIBUTED BY OPA

- Rent controls are legal regulations that control apartment rental prices (a type of *price ceiling*).
- They are often enacted in times of emergencies or crises, (for example, during wars).

Graph of Rent Controls



Positive Effects of Rent Control

- Rent control may...
 - help poor families pay for their housing,
 - soften the effects of economic shocks, allowing people to stay in their apartments when rents would rise.
- In the short run, rent controls may make neighborhoods more stable,
 - preventing them from becoming **mostly rich**
 - or **mostly poor**.

Negative Effects of Rent Control

- Rent control creates excess demand.
 - Some people who would have been able to rent apartments without rent control...
 - ...will not be able to find them with rent control.
- Other possible negative effects of excess demand:
 - bribes or illegal payments that exceed rent limits
 - poor maintenance of existing apartments
 - decline in number and quality of new apartments
 - difficulty in changing apartments
 - discrimination by landlords against racial or religious minorities

Clicker Question

Nonprice-Rationing Mechanisms

- Distributing goods without using prices (nonprice rationing) occurs when the prevailing price creates excess demand.
- When there is excess demand, the price does not determine who gets what.
- Many possible mechanisms can be used for nonprice rationing.
For example,
 - Ration books
 - Queues (lines)

- Other nonprice-rationing mechanisms:
 - first-come, first-served
 - bribery and “under-the-table” payments
 - personal connections

Nonprice Rationing: Advantages

- In situations of uncertainty and danger, nonprice rationing may be safer than giving people money to buy what they need.
 - Distribution of food during wars or famines.
 - Vaccinations to prevent disease.
- Nonprice rationing may increase efficiency when people are asked to pay less than cost.
 - General medical services.
- In emergencies, nonprice rationing may work faster than markets.
 - Police and fire department services.

Nonprice Rationing: Disadvantages

- Nonprice rationing is usually not efficient.
- *People with lower WTP may be more successful at obtaining goods than those with higher WTP.*
 - This lowers consumer surplus.
- Nonprice rationing mechanisms are costly to use.
 - **Example:** Under rent control, potential renters may waste a lot of time trying to convince landlords to let them have apartments.
 - These costs are called **transaction costs**.
 - Transaction costs lower consumer surplus.

- But keep in mind that free rental markets are not a Pareto improvement over rent-controlled markets,...
- ...because some renters would be worse off if rent controls are removed.
- This means that there will be strong opposition to removing rent controls once they are in place.

Summary of DWL from Price Controls

- When the distribution of income is very unequal, WTP is not a good measure of consumer value .
 - Then CS and SS isn't a great measure of efficiency.
- But suppose the distribution of income is equitable and WTP is a good measure of consumer value.
- $SS = WTP - MC$
- Raising or lowering the price with price controls, causes a fall in the quantity sold from Q^* to Q_C .
 - This reduces social surplus by the DWL (the area of the triangle between Q^* and Q_C).
- If price controls reduce the price, then there is excess demand and nonprice rationing.
 - If the goods are obtained by those with the highest WTP, the only DWL is the area of the triangle and transaction costs.
 - But if the goods are obtained by those with a lower WTP, there will be more DWL, and social surplus is reduced even more.

Taxes on Goods and Services

- Like other kinds of government intervention in markets for goods and services, taxes tend to reduce social surplus.
- But in general, economists prefer taxes to other kinds of intervention...
- ...because taxes lead to market-clearing* prices (*no excess demand or supply),...
- ...and do not result in nonprice rationing.

Clicker Question

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