Lecture 11: Government Intervention in Competitive Markets

Session ID: ***DDEE***

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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 distortions or imperfections 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)***.

Acceptability of 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.

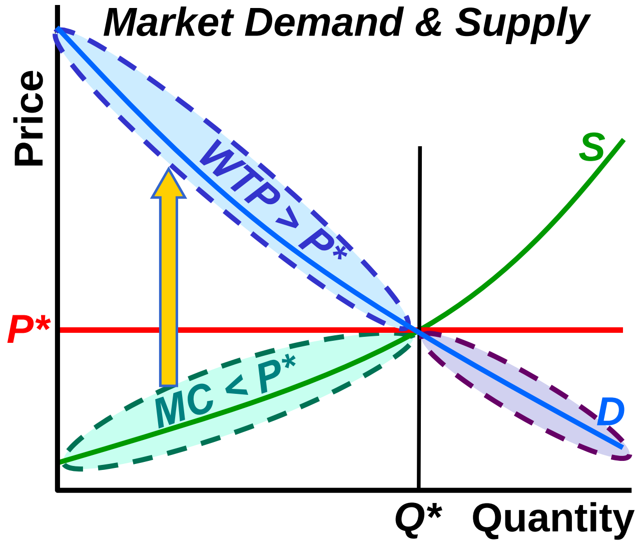
- Also, in many cultures, some markets are thought to be socially undesirable (repugnant):
  - heroin, cocaine, alcoholic beverages
  - prostitution
  - body parts
  - babies
  - babysitting (?)
- For the opinion of a free-market supporter, read Alex Tabarrok, on the subject.
  *[Course Website > Classes > Readings]***.**
- Most economists think that some interference with markets is necessary,…
- but we believe that policymakers should be cautious about doing so.

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.

Allocation with Prices

- When goods are allocated with equilibrium prices ***P****,
- consumers with ***WTP > P****
- acquire goods with ***MC < P****.
- Consumers with lower ***WTP*** 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***.

Government Intervention

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

- Price controls
  - Price controls are an attempt to increase equity by using prices that transfer surplus from *[rich]* sellers to *[poor]* buyers (or the other way around).
  - But there is a large efficiency loss when surplus is transferred.
  - [The “pie” is cut up more fairly, but it may be a much smaller pie.]
- Is there a better way to increase equity?
  - Most economists argue that it is more efficient to transfer money from the rich to the poor,…
  - without directly interfering with market mechanisms.

Government Intervention into Markets

- Frequently, large groups of people are unhappy with the market-equilibrium price.

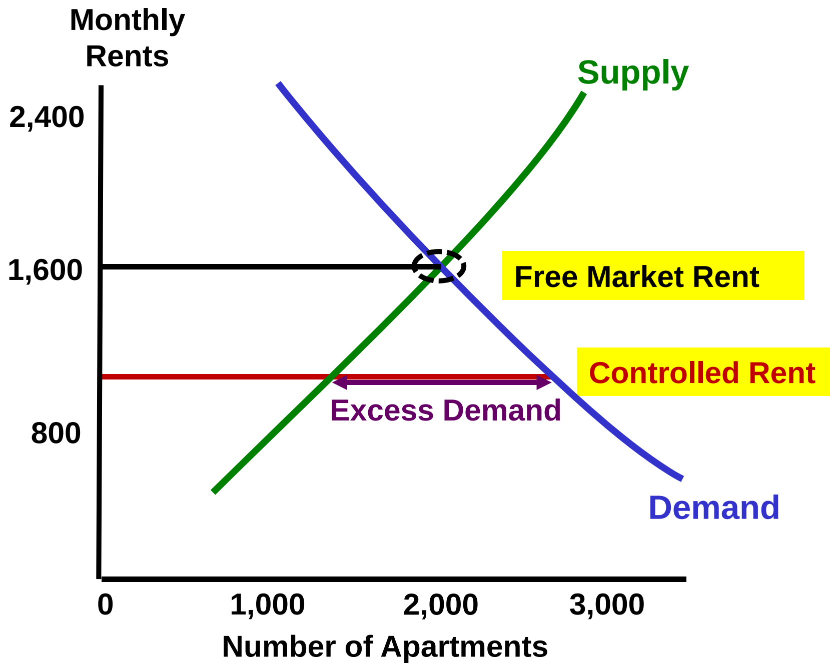
- In such situations, governments may intervene to place ***upper limits*** or ***lower limits*** on prices.

Example: Rent Controls

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

- 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 controls may have a number of positive effects. They may…
  - help poor families pay for their housing,
  - soften the effects of economic shocks, allowing people who lose jobs to stay in their apartments,
  - and prevent neighborhoods from becoming ***mostly rich,***
  - and avoid forcing poor people to move to neighborhoods that are ***mostly poor***.

Negative Effects of Rent Control

- Rent control creates excess demand.
- Some people who would have rented 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

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Price Controls and Other Legal Interventions

- 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 nowadays.
- Other kinds of government interventions:
  - Subsidies **Example:**
  - Quotas **Example:**

Example: Farm Subsidies

- The US Government supplements the prices that farmers receive for their goods.
- Who gains? Is it the small farmer?
- In 2009, more than half of farm subsidies went to 10% of recipients.

Top 10% of Recipients: 61% of Subsidies

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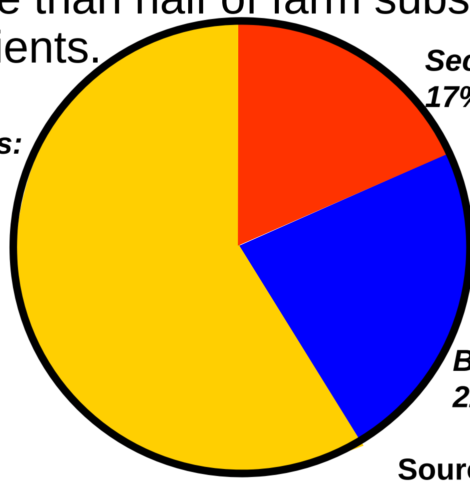

Source: Environmental Working Group, www.ewg.org

- Of course, the US is not the only developed country that provides farm subsidies.
- Other countries: EU countries, Japan
- Not only do most US farmers gain little, but farmers in developing countries are hurt a lot.
- Bottom Line: Price intervention in markets may help poor consumers, struggling businesses,…
- but intervention can also lead to all kinds of undesirable outcomes by helping economically and politically powerful groups.
- What about the new rules in the US for intervention in financial markets?

Nonprice-Rationing Mechanisms

- Nonprice rationing occurs when the prevailing price creates excess demand and 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 markets.
  - Distribution of food during wars or famines.
  - Vaccinations to prevent disease.
- Nonprice rationing may increase efficiency when people 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 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 ***transactions costs***.
  - Transactions costs lower consumer surplus.

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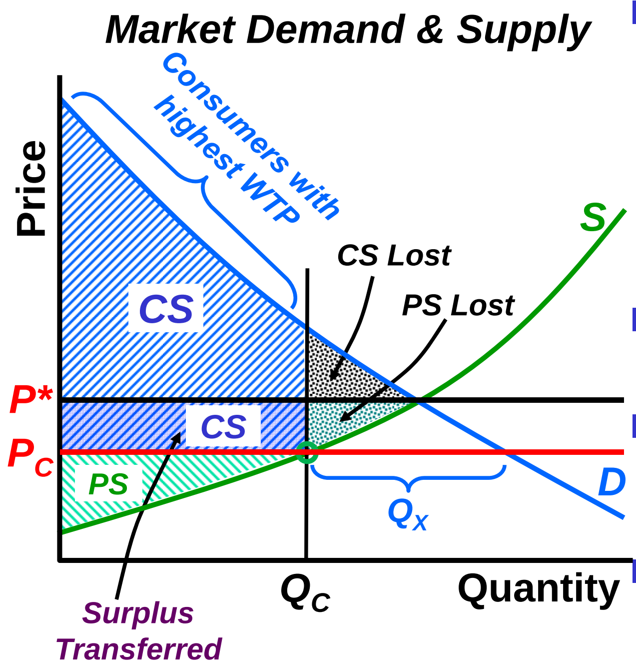
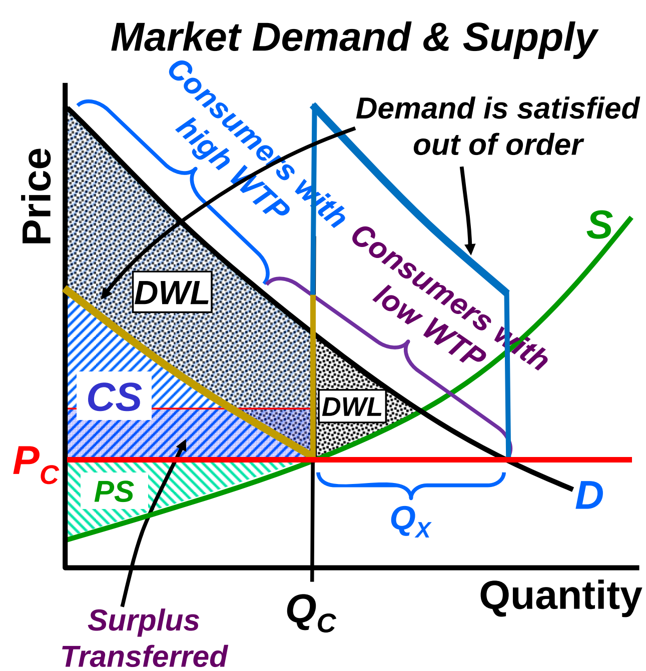
Example: Rent Controls for Apartments



- The market for apartments:
  - equilibrium rent ***P****
  - controlled rent P_C
  - transacted quantity Q_C ("short-side rule")
  - excess demand Q_X
- Suppose consumers with highest WTP get apartments.
- Rent controls have caused a transfer of surplus from landlords to renters,
- but controls also cause both renters and landlords to lose surplus because quantity is reduced.
- Total surplus has decreased, (deadweight loss) but ***CS*** may increase.

- The previous graph of rent controls showed DWL from quantity reduction,…
- but did not include efficiency losses from nonprice rationing.
- In reality, rent controls create even less surplus than was indicated there.
- **Example:** The guys with low WTP may get the apartments...
- …instead of the guys with high WTP.
  - Demand would be satisfied out of order.
  - A lot more surplus will be lost!



- 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.

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.

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