Price Controls...

- Are usually enacted when policymakers believe the market price is unfair to buyers or sellers.
- Result in government-created price ceilings and floors.

Price Ceilings & Price Floors

**Price Ceiling**
- A legally established maximum price at which a good can be sold.

**Price Floor**
- A legally established minimum price at which a good can be sold.

Price Ceilings

Two outcomes are possible when the government imposes a price ceiling:
- The price ceiling is not binding if set above the equilibrium price.
- The price ceiling is binding if set below the equilibrium price, leading to a shortage.
A Price Ceiling That Is Binding...

<table>
<thead>
<tr>
<th>Price of Ice-Cream Cone</th>
<th>Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equilibrium price</td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Demand</td>
</tr>
</tbody>
</table>

Quanitity of Ice-Cream Cones: 0
Price of Ice-Cream Cone: 2
Demand: 75
Supply: 125
Equilibrium price: 5.3
Price ceiling: 2
Shortage: 125
Quantity demanded: 75
Quantity supplied: 125

Effects of Price Ceilings
A binding price ceiling creates...
...shortages because $Q_D > Q_S$.
- Example: Gasoline shortage of the 1970s
...nonprice rationing
- Examples: Long lines, Discrimination by sellers

Effects of Price Ceiling
- Notice that even though price ceiling was motivated by a desire to help buyers of ice cream, not all buyers benefit.
- Some buyers do get to pay a lower price, although they may have to wait in line.
- Some buyers do not get the opportunity to purchase any ice cream.

Lines at the Gas Pump
In 1973 OPEC raised the price of crude oil in world markets. Because crude oil is the major input used to make gasoline, the higher oil prices reduced the supply of gasoline.

What was responsible for the long gas lines?
Economists blame government regulations that limited the price oil companies could charge for gasoline.

The Price Ceiling on Gasoline Is Not Binding...

1. Initially, the price ceiling is not binding...
2. When supply falls...
3. ...but when supply falls...
4. ...resulting in a shortage.

The Price Ceiling on Gasoline Is Binding...

1. Initially, the price ceiling is not binding...
2. ...but when supply falls...
3. ...the price ceiling becomes binding...
4. ...resulting in a shortage.
Rent Control

- Rent controls are ceilings placed on the rents that landlords may charge their tenants.
- The goal of rent control policy is to help the poor by making housing more affordable.
- One economist called rent control “the best way to destroy a city, other than bombing.”

Rent Control in the Short Run

- Because the supply and demand for apartments are more elastic...
- ...rent control causes a large shortage

Rent Control in the Long Run

- Keep long waiting lists.
- Give preferences to tenants without children or pets.
- They may discriminate on the basis of race.
- They may take bribes

Price Floors

When the government imposes a price floor, two outcomes are possible.
- The price floor is not binding if set below the equilibrium price.
- The price floor is binding if set above the equilibrium price, leading to a surplus.

A Price Floor That Is Not Binding

- The price floor is not binding if set below the equilibrium price.
- The price floor is binding if set above the equilibrium price, leading to a surplus.
**Effects of a Price Floor**

A binding price floor causes . . .

… a surplus because $Q_S > Q_D$

… nonprice rationing is an alternative mechanism for rationing the good, using discrimination criteria.

Examples: The minimum wage, Agricultural price supports

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**The Minimum Wage**

An important example of a price floor is the minimum wage. Minimum wage laws dictate the lowest price possible for labor that any employer may pay.
The Minimum Wage

- The impact of minimum wage depends on the skill and experience of the worker.
- Workers with high skills are not affected, because they are making considerably more than the minimum wage.
- The minimum wage has its greatest impact on the teenage labor market.

The Minimum Wage

- Studies have shown that a 10% increase in the minimum wage causes a 1 to 3 percent drop in teenage employment.
- Fewer than 1/3 of minimum wage earners are in families with incomes below the poverty line.

Evaluating Price Controls

- “Markets are usually a good way to organize economic activity.”
- Both the rent control and the minimum wage policies have adverse effects. Letting the market work itself out may be a better alternative.

Taxes

- Tax incidence is the study of who bears the burden of a tax.
- Taxes result in a change in market equilibrium.
- Buyers pay more and sellers receive less, regardless of whom the tax is levied on.

Impact of a 50¢ Tax Levied on Buyers...

Government levies taxes to raise revenue for public projects.
What was the impact of tax?

- Taxes discourage market activity.
- When a good is taxed, the quantity sold is smaller.
- Buyers and sellers share the tax burden.

The Effect of Taxes

- Taxes on buyers and sellers are equivalent.
- Regardless of who is taxed, we end up with the same result. In this example, the buyer pays 30 cents of the 50 cent tax and the seller pays 20 cents of the 50 cent tax.

The Incidence of Tax

- In what proportions is the burden of the tax divided?
- How do the effects of taxes on sellers compare to those levied on buyers?

The answers to these questions depend on the elasticity of demand and the elasticity of supply.
So, how is the burden of the tax divided?

The burden of a tax falls more heavily on the side of the market that is less elastic.

Summary

- Price controls include price ceilings and price floors.
- A price ceiling is a legal maximum on the price of a good or service. An example is rent control.
- A price floor is a legal minimum on the price of a good or a service. An example is the minimum wage.

Summary

- Taxes are used to raise revenue for public purposes.
- When the government levies a tax on a good, the equilibrium quantity of the good falls.
- A tax on a good places a wedge between the price paid by buyers and the price received by sellers.

Summary

- The incidence of a tax refers to who bears the burden of a tax.
- The incidence of a tax does not depend on whether the tax is levied on buyers or sellers.
- The incidence of the tax depends on the price elasticities of supply and demand.