The Interaction of Supply and Demand

- The English historian Thomas Carlyle once said:
  “Teach any parrot the words *supply* and *demand* and you’ve got an economist.”

Equilibrium

- Equilibrium is a concept in which opposing dynamic forces cancel each other out.

Equilibrium

- In a free market, the forces of supply and demand interact to determine equilibrium quantity and equilibrium price.

What Equilibrium Isn’t

- Equilibrium isn’t a state of the world, it is a characteristic of a model.
- Equilibrium isn’t inherently good or bad, it is simply a state in which dynamic pressures offset each other.

Equilibrium

- *Equilibrium price* – the price toward which the invisible hand drives the market.

  • *Equilibrium quantity* – the amount bought and sold at the equilibrium price.
What Equilibrium Isn’t
- When the market is not in equilibrium, you get either excess supply or excess demand, and a tendency for price to change.

Excess Supply
- *Excess supply* – a surplus, the quantity supplied is greater than quantity demanded
- Prices tend to fall.

Excess Demand
- *Excess demand* – a shortage, the quantity demanded is greater than quantity supplied
- Prices tend to rise.

Price Adjusts
- The greater the difference between quantity supplied and quantity demanded, the more pressure there is for prices to rise or fall.

Price Adjusts
- When quantity demanded equals quantity supplied, prices have no tendency to change.

The Graphical Interaction of Supply and Demand

<table>
<thead>
<tr>
<th>Price (per DVD)</th>
<th>Quantity Supplied</th>
<th>Quantity Demanded</th>
<th>Surplus (+) Shortage (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.50</td>
<td>7</td>
<td>3</td>
<td>+4</td>
</tr>
<tr>
<td>$2.50</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>$1.50</td>
<td>3</td>
<td>7</td>
<td>-4</td>
</tr>
</tbody>
</table>
The Graphical Interaction of Supply and Demand

- When price is $3.50 each, quantity supplied equals 7 and quantity demanded equals 3.
  - The excess supply of 4 pushes price down.

- When price is $1.50 each, quantity supplied equals 3 and quantity demanded equals 7.
  - The excess demand of 4 pushes price up.

- When price is $2.50 each, quantity supplied equals 5 and quantity demanded equals 5.
  - There is no excess supply or excess demand, so price will not rise or fall.

Equilibrium (Graph)

<table>
<thead>
<tr>
<th>Price per DVD</th>
<th>Quantity supplied</th>
<th>Quantity demanded</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>$2</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>$3</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

Shifts in Supply and Demand

- Shifts in either supply or demand change equilibrium price and quantity.
**Increase in Demand**

- An increase in demand creates excess demand at the original equilibrium price.
- The excess demand pushes price upward until a new higher price and quantity are reached.

**Decrease in Supply**

- A decrease in supply creates excess demand at the original equilibrium price.
- The excess demand pushes price upward until a new higher price and lower quantity are reached.

**The Limitations Of Supply And Demand Analysis**

- Sometimes supply and demand are interconnected.
- Other things don’t remain constant.
The Limitations Of Supply And Demand Analysis

- All actions have a multitude of ripple and possible feedback effects.
- The ripple effect is smaller when the goods are a small percentage of the entire economy.

Something to think about!

The Limitations Of Supply And Demand Analysis

- The other-things-constant assumption is likely not to hold when the goods represent a large percentage of the entire economy.

Something to think about!

A Price Floor

Rent Controls