Supply and Demand: Price and Quantity Determination in Competitive Markets
Starring

◆ Changes in Equilibrium
Featuring

- Increases in Demand, c.p.
- Increases in Supply, c.p.
- Decreases in Demand, c.p.
- Decreases in Supply, c.p.
- Simultaneous Changes
Changes in Equilibrium

- Remember that Supply and Demand are drawn under the ceteris paribus assumption.
- Any factors which cause Supply and/or Demand to change will affect equilibrium price and quantity.
Change in Demand

- Demand will change for any of the factors discussed previously.
- Remember PINTE (except for the price of the good itself)
- For instance, let’s say the demand for CDs increased due to an increase in income
Increase in Demand

Increase in Demand
Change in Supply

- Supply will change for any of the factors discussed previously
- Remember PENT (except for the price of the good itself)
- For instance, let’s say that the government lowers taxes on CDs
Increase in Supply

The diagram illustrates the effect of an increase in supply on the market. The original supply curve is S, and the new, increased supply curve is S'. Initially, the market is at equilibrium point E with price P* and quantity Q*. After the increase in supply, the equilibrium shifts to point E' with a new price P*' and quantity Q*'.
Changes in Demand and Supply

To determine the impact of both supply and demand changing:

- First examine what happens to equilibrium price and quantity when just demand shifts.
- Second, examine what happens to equilibrium price and quantity when just supply changes.
- Finally, add the two effects together.
Changes in Demand and Supply

- When supply and demand move in the same direction, equilibrium price is ambiguous.
- When supply and demand move in opposite directions, equilibrium quantity is ambiguous.
- If P and Q both increase, the dominant force must have been an increase in D.
- If P and Q both decrease, the dominant force must have been a decrease in D.
- If P increases and Q decreases, the dominant force must have been a decrease in S.
- If P decreases and Q increases, the dominant force must have been an increase in S.
Explaining Changes in Equilibrium Price and Quantity

Moving to quadrant B implies the dominate force was an increase in demand. To quadrant C, the dominate force is a decrease in demand. Moving to quadrants A or F implies the dominate force was supply (decrease for A, and increase for F)
Increase in Supply and Demand: \( \uparrow Q, \Delta P \) ?

\[ \Delta D > \Delta S > 0 \]

\[ 0 < \Delta D < \Delta S \]
Decrease in Supply and Demand: $\downarrow Q, \Delta P$?

| $\Delta D > \Delta S > 0$ | $0 < \Delta D < \Delta S$ |
Increase in Supply and Decrease in Demand: \( \downarrow P, \Delta Q \) ?

\[ \begin{align*}
\Delta D & \text{ dominates, } \Delta Q < 0 \\
\Delta S & \text{ dominates, } \Delta Q > 0
\end{align*} \]
Decrease in Supply and Increase in Demand: \( \uparrow P, \Delta Q > 0 \) ?

\[ \Delta D \text{ dominates, } \Delta Q < 0 \]

\[ \Delta S \text{ dominates, } \Delta Q > 0 \]
Helpful Hints

- Know how each of the main Demand Shifters, PINTE, and Supply Shifters, PENT, excluding the price of the good itself, effect equilibrium price and quantity.
- For an income change, you also need to know whether the good is “normal” or “inferior.”
- Be able to show graphically how a change in one of these shifters affects equilibrium.
- Practice, Practice, Practice, Practice, Practice.
The End