

Market Equilibrium

Market is the place the buyers and sellers make the transactions.

- The place is not necessarily a physical place

Market in this chapter is assumed to be in perfect competition.

Assumptions:

1. Many buyers
2. Many sellers
3. Every seller sells essentially the same product (homogeneous product) that can perfectly substitute each other's.
4. Every seller has the same technology and access to the same quality and prices of economic resources.
5. At a given market price P_0 , the market demand and market supply will respond with quantity demanded Q_D and quantity supplied Q_S .

If $Q_D > Q_S$, then market price increases.

If $Q_D < Q_S$, then market price decreases.

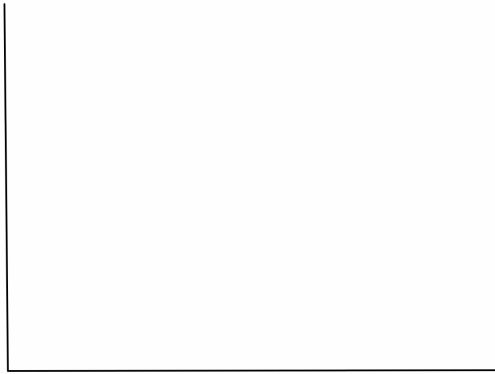
$$\begin{aligned} \text{Excess Demand} &= Q_D - Q_S \\ \text{Excess Supply} &= Q_S - Q_D \end{aligned}$$

Note: $\text{Excess Demand} = - \text{Excess Supply}$

When $\text{Excess Demand} = \text{Excess Supply} = 0$, there is no pressure on the price to change. That is, we have a market equilibrium.

Market Equilibrium is the point $E = (Q_0, P_0)$ where at equilibrium price P_0 the buyers and sellers are willing and able to buy and sell at the same quantity Q_0 .

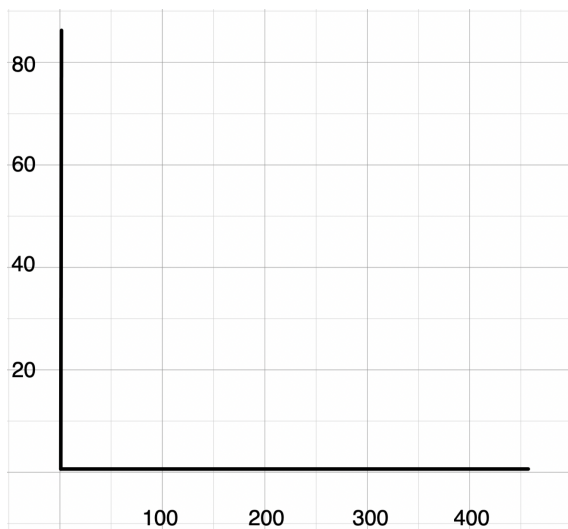
- Why is the market equilibrium is at $E = (Q_0, P_0)$?



Example:

$$\text{Demand: } P = 70 - \frac{1}{5} Q_D$$

$$\text{Supply: } P = 10 + \frac{1}{10} Q_S$$



Change in Market Equilibrium

- How does COVID-19 impact the market demand of a product?

Case 1: Demand decreases



3 other possible changes in Market Equilibrium



When Demand and Supply change at the same time