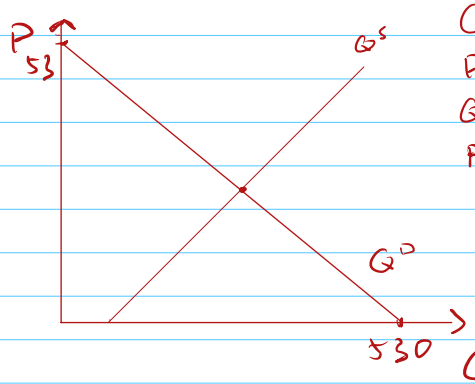
Demand

- how much the market will buy for any given price
- the market's willingness to pay for each unit of the good.
- the law of demand: quantity demanded is decreasing in it price increased (assuming all else keep constant).

Ex.



$Q^D(P) = 53 - 0.1P$

$P^{(D)}(Q) = 53 - 10Q$ → inverse demand.

$Q^S(P) = 0.15 + P$

$P^S(Q) = P - 0.15$ → inverse supply

Supply

- how much the market supplies at any given price.
- the market's willingness to supply each unit.

Market equilibrium.

the point at where $Q^D(P) = Q^S(P)$

equilibrium consist of both quantity and a price.

Ex: $Q^D(P) = 500 - 4P$

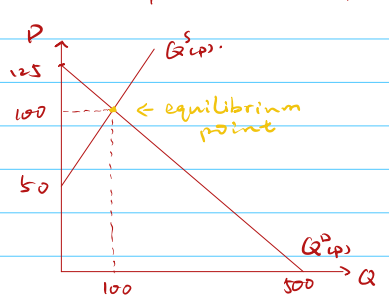
$Q^S(P) = 2P - 100$ if $P \geq 50$

$= 0$ if $P \in [0, 50)$ ⇐ there's no negative supply.

Equilibrium is at p such that $Q^D(P) = Q^S(P)$,

$500 - 4P = 2P - 100$

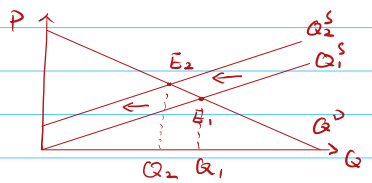
$P = 100$ $\quad Q^D(P) = Q^S(P) = 100$



Shift in demand & supply.

If anything other than price changes, demand / supply shift.

For example: an increase in the cost in a factor of production will decrease supply for every price i.e. a shift left of the curve.



⇐ the equilibrium point shift left.

Exercise:

1. Increase in just supply ↘
2. demand →
3. Decrease supply ↑
4. demand ←