

Market Equilibrium

AP Microeconomics | Unit 2 | surplus, shortage, single and double shifts

Running example. Demand: $P = 6 - \frac{Q}{10}$. Supply: $P = \frac{Q}{10}$.

1. Where the curves cross

Equilibrium

The price at which **quantity demanded** = **quantity supplied**. Here the equilibrium price is \$3 and the equilibrium quantity is 30. The market *clears*: no one who wants to buy or sell at that price is left out.

2. Surplus and shortage

Price	Q_s and Q_d	Result	What happens next
\$5 (above equilibrium)	50 and 10	surplus of 40	unsold goods: sellers cut the price
\$1 (below equilibrium)	10 and 50	shortage of 40	buyers compete: the price is bid up

Surplus $\Rightarrow$ price falls. Shortage $\Rightarrow$ price rises. Either way the price moves toward equilibrium and stops there: the market corrects itself.

3. One curve shifts

Three steps, every time: (1) which curve shifts? (2) which way? (3) find the new crossing.

The good becomes popular: demand shifts right to $P = 8 - \frac{Q}{10}$; the new equilibrium is $P = \$4$, $Q = 40$.

	price	quantity
Demand increases	up	up
Demand decreases	down	down
Supply increases	down	up
Supply decreases	up	down

A demand shift moves price and quantity in the *same* direction; a supply shift moves them in *opposite* directions.

4. Both curves shift

Double shift rule

Work out each shift separately. Where the two agree, the result is certain. Where they disagree, it is **indeterminate**. One of price or quantity is always indeterminate.

Demand increases and supply increases: quantity is pushed up twice, so it rises; price is pushed up by one shift and down by the other, so it is indeterminate (it depends on which shift is larger).

Where students lose points

1. Shifting a curve because the price changed: price is the result, not the cause.
2. Mixing up surplus (price too high) and shortage (price too low).
3. Shifting both curves when only one determinant changed.
4. Giving a definite answer for both price and quantity in a double shift.
5. No labels: P_1 , Q_1 , P_2 , Q_2 on the axes, and an arrow on the shift.

Now practise it

Theory sticks once you use it. On **sad-academy.com** you'll find practice questions for this exact subtopic in the AP format, and an AI that grades your free-response answers against the scoring guidelines, the way an AP reader would.

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