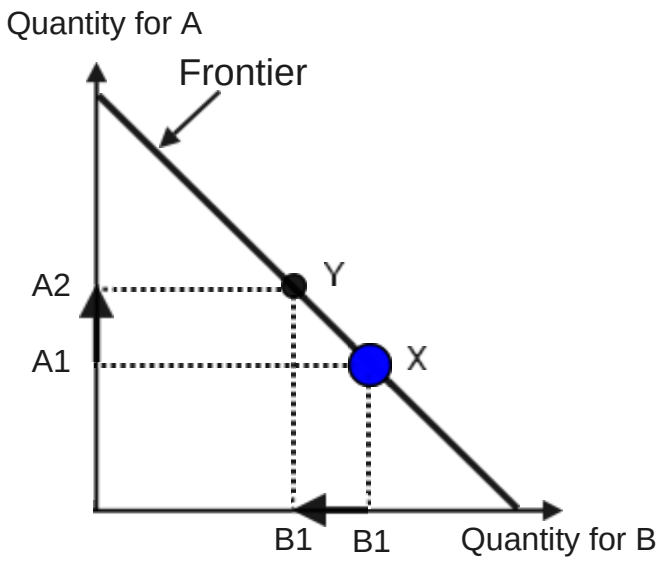
Pareto Efficiency

1 Efficient allocation

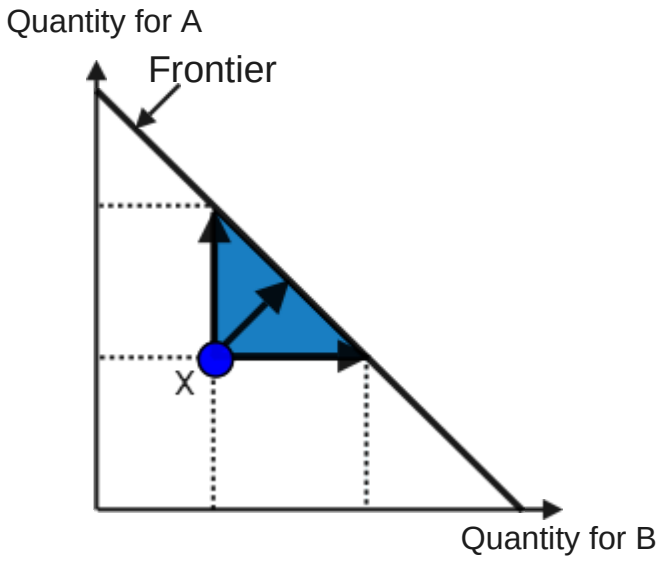
11 Pareto efficiency

Example: one good, two persons (A and B)
Question: How can the good be allocated to 2 persons (irrespective of utility and income)?



- Starting points on the frontier are **Pareto efficient**: It is impossible to make one person better off without making another one worse off.
- Starting point X is Pareto efficient. If we make A better off (A2 > A1), B is worse off (B2 < B1).
  → Point Y is not Pareto efficient in relation to X.

12 From inefficiency to efficiency

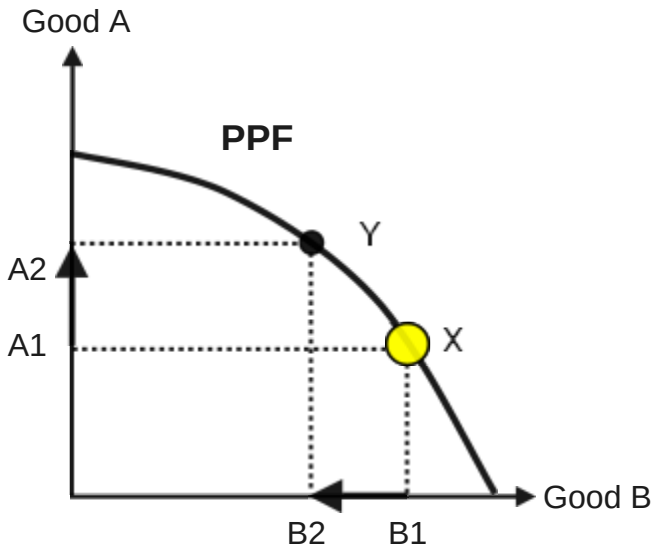


- Starting point X is inefficient.
- Both A and B can be made better off moving within the triangle towards the frontier.
- The movements towards the frontier are **Pareto improvements** and the points on the frontier are **Pareto optimum** points.

2 Efficient production

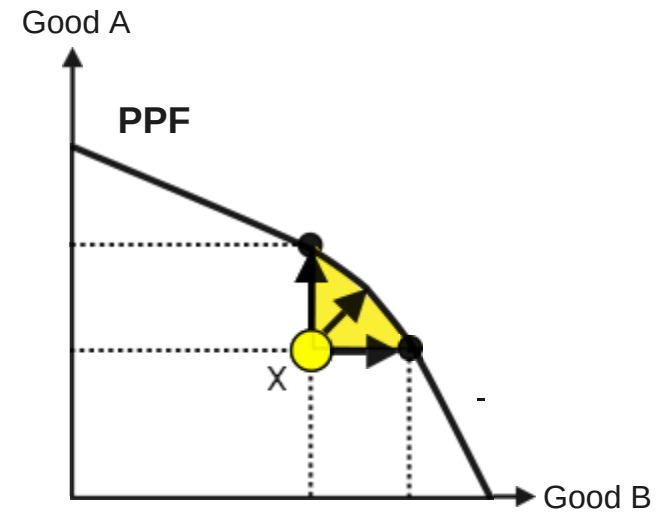
21 Production possibility frontier (PPF) and Pareto efficiency

Example: two goods (A, B) in an economy



- Starting points on the PPF are **Pareto efficient**: It is impossible to produce more of one good without producing less of another one.
- Starting point X is Pareto efficient. If we produce more of A (A2 > A1), less of B (B2 < B1) can be produced.
  → Point Y is not Pareto efficient in relation to X.

22 From inefficiency to efficiency



- Starting point X is inefficient.
- More of A **and** more of B can be produced moving towards the PPF. These movements are **Pareto improvements** and the points on the PPF are **Pareto optimum** points.