

Key Economic Concepts

Introduction

- Economics is the study of choice under scarcity; when a party uses their resources to pursue one course of action, they cannot use those same resources to do something else.
- Given that resources are limited, the key questions that an economy needs to 'decide' on are: (a) what to produce, (b) how to produce it, and (c) who should get what is produced; in modern economies, answers to these questions are largely determined by the market through the interaction of sellers and buyers, however the government can also help to determine the answers to these questions through regulating or intervening in the market.
- Economics has developed a set of analytical tools; these tools are not meant to capture everything that occurs in any given situation, but rather simplify or model complicated and potentially messy real-world issues into a tractable form that can provide valuable insights.

Scarcity and Opportunity Cost

- **Scarcity** is the fact that resources are limited so that not all wants can be met; it means that parties face trade-offs – by choosing one thing, the party must miss out on another.
- The **opportunity cost** of any choice is the value of the next best forgone alternative; explicit opportunity costs involve direct payment (considered as costs by an accountant) while implicit costs are opportunities that are forgone that do not involve an explicit cost.
- **Sunk costs** are those that have been incurred and cannot be recovered no matter what; opportunity cost only includes costs that could change and so sunk costs are not included.

Marginal Analysis

- Typically it is assumed that economic agents are rational and act to maximise the benefit they receive from any economic transactions (e.g. consumers seek to maximise their benefits from consumption and firms seek to maximise their profits from production).
- **Marginal analysis** involves consideration of the additional benefit or additional cost of any action and serves as one way that economic agents can solve the maximisation problem.
- **Marginal benefit** of an extra unit of a good is the benefit derived from one more unit; **marginal cost** of an extra unit is the cost incurred for one more unit (typically its price); if marginal benefit is more than marginal cost then a consumer will be better off buying it.

Ceteris Paribus

- **Ceteris paribus**, 'other things equal', involves examining the impact of one change at a time holding everything else constant so as to determine the impact of a particular event.

Correlation and Causation

- **Correlation** refers to the situation in which two or more factors are observed to move together (or in opposite directions) while **causation** refers to a situation where a change in one factor brings about a change in something else; causation implies correlation.
- Correlation alone cannot prove that there is a causation effect; it can be produced by chance, by the effect of a third 'lurking' variable, or by a cause-and-effect relationship.

Trade and the PPF

Introduction

- Trade makes people better off because there are gains from exchange and specialisation.

Gains from Exchange

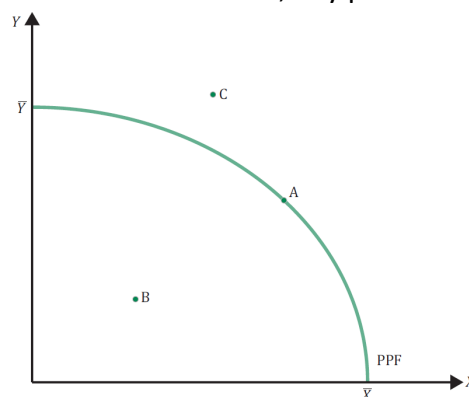
- Trade makes people better off is as it helps allocate goods and services to those who value them most; trade is voluntary thus parties only agree to trade if it leaves them better off.
- The seller's valuation of the item must not exceed that of the buyer's; the seller will not accept a price lower than their valuation; the buyer will not accept one higher than theirs.

$$v_s \leq p \leq v_b$$

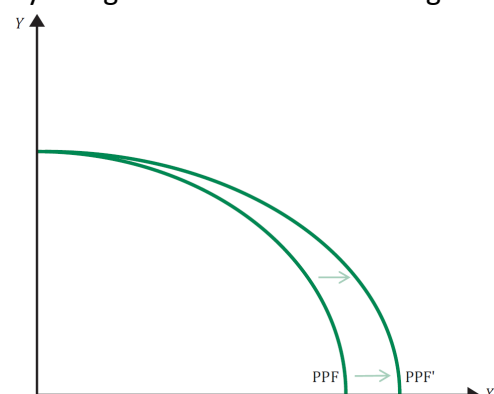
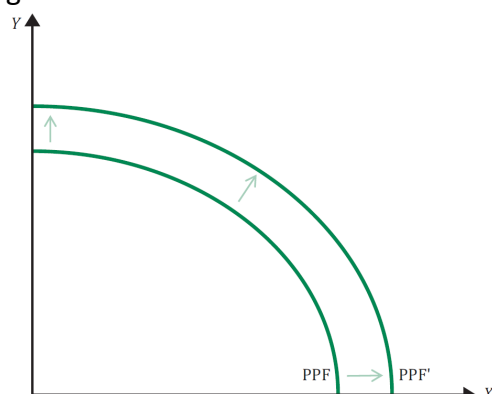
- The exact price at which the item is traded depends on bargaining between the parties.

Gains from Specialisation

- A **production possibility frontier (PPF)** is a graph of output that an individual (or country) can produce for a particular set of resources (trade-offs in production due to scarcity).
- The PPF traces out the combinations of the quantity of two goods that an individual or a country can produce if it uses all of its resources; any point inside the PPF is feasible but inefficient to produce; any point on the PPF is feasible and efficient to produce in the sense that it makes full use of the available resources; any point outside the PPF is not feasible.



- The shape of the PPF is dependent on the current levels of both resources and technology.
- If there is an increase in available resources or an improvement in technology that boosts the production of both goods then the PPF shifts outwards from the origin along both axes; if there is improvement in resources or technology that only affects the production of one good then the PPF will rotate or stretch outwards only along the axis of the affected good.



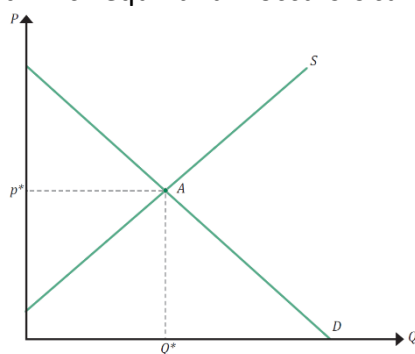
Equilibrium and Welfare

Introduction

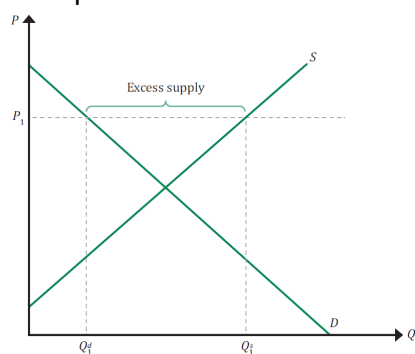
- Demand and supply determine the price and quantity traded of products in a market.

Market Equilibrium

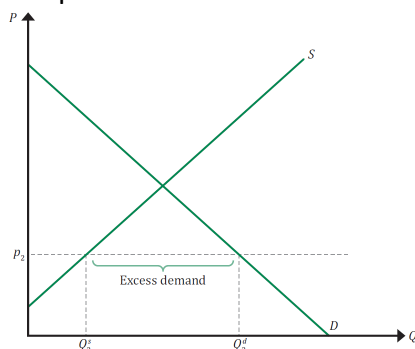
- **Market equilibrium** occurs when the quantity demanded by consumers equals the quantity supplied by firms; the price at which equilibrium occurs is called the **market-clearing price**.



- This point is called an equilibrium because there is no pressure on price or quantity traded in the market to change; if a market is not in equilibrium there will be pressure on both price and quantity to move towards the equilibrium price and the equilibrium quantity.
- When the market price is above the equilibrium price, the quantity supplied exceeds the quantity demanded and so there is **excess supply**; there will be downward pressure on prices as sellers try to bring more consumers into the market, resulting in a decrease in quantity supplied; this downward pressure continues until the excess supply is eliminated.



- When the market price is below the equilibrium price, the quantity demanded exceeds the quantity supplied and so there is **excess demand**; there will be upward pressure on prices as buyers compete for limited units in the market, increasing quantity supplied and decreasing demand; this upward pressure continues until the excess demand is eliminated.



Introduction to Markets

Introduction

- Alternative market structures result in different competitive environments and outcomes.

	Number of firms	Barriers to entry	Power to set price	Product differentiation
Perfect comp.	Many	Low	No	No
Monopoly	One	High	Yes	n/a
Mono. Comp.	Many	Low	Yes	Yes
Oligopoly	Few	High	Yes	Sometimes

- In **perfectly competitive markets** there are many buyers and sellers, low barriers to entry, and all producers sell an identical product; firms do not have the market power to set prices.
- In **monopoly markets** there is only one seller and there are high barriers to entry; consequently, the single producer has the power to choose the price that it charges.
- In **monopolistically competitive markets** there are many firms who differentiate themselves from each other by selling slightly different products; consequently these firms have some scope to set their own prices; there are, however, low barriers to entry.
- In **oligopoly markets** there is a handful of sellers and high barriers to entry; there may or may not be product differentiation; actions of the each firm affects other firms, so firms have some power to set prices but their choices may be dictated by the actions of others.

Externalities

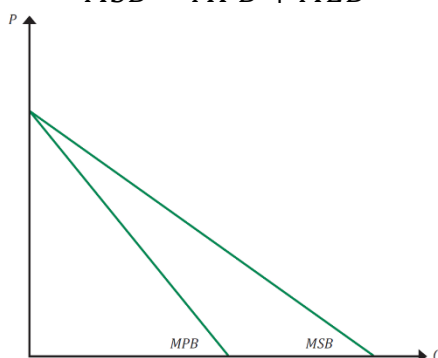
Introduction

- Competitive markets are usually Pareto efficient given that all mutually beneficial trades occur which maximises the gains from trade and hence total surplus; however, there are some situations where the market outcome will not be efficient, termed **market failures**.
- An **externality** is a cost or benefit that accrues to a person who is not directly involved in an economic activity or transaction; a competitive market can end up producing too much of a product (with a negative externality) or too little (when there are external benefits).

External Costs and Benefits

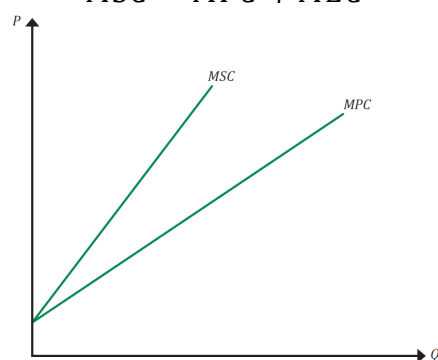
- An externality is a cost or benefit that accrues to a person who is not directly involved in an economic activity; a **positive externality** occurs where there are external benefits for a third party, while a **negative externality** occurs where there are external costs for them.
- In the presence of a positive externality the consumption or production of a good also has external benefits for a third party; social benefit includes consumer and external benefits.
- The marginal benefit to society of an additional unit of a good with positive externality is the **marginal social benefit (MSB)** which comprises the **marginal private benefit (MPB)** enjoyed by the consumer and the **marginal external benefit (MEB)** accrued to a third party.

$$MSB = MPB + MEB$$



- In the presence of a negative externality the consumption or production of a good also has external costs for a third party; social cost includes producer cost and external cost.
- The marginal cost to society of an additional unit of a good with negative externality is the **marginal social cost (MSC)** which comprises the **marginal private cost (MPC)** incurred by the producer in addition to the **marginal external cost (MEC)** incurred by a third party.

$$MSC = MPC + MEC$$



- The size of the externality can increase, decrease, or remain constant with level of output.