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# Chapter 1: Economics – Foundations & Models

<b>WORD</b>	<b>DEFINITION/EXPLANATION</b>
<b>Scarcity</b>	A situation in which <u>unlimited</u> wants exceed the limited resources available to fulfil those wants.
<b>Economics</b>	The study of the choices people and society make to attain those unlimited wants, given the <u>scarce</u> resources available.
<b>Models</b>	Simplified versions of reality used to analyse real-world situations.
<b>Market</b>	Group of buyers and sellers of a good/service, and the institution/arrangement by which they come together to <u>trade</u> .
<b>Marginal benefit/cost</b>	Additional benefit or cost of a decision. EG: Additional revenue earned from the selling of goods, over the cost to produce such – wages, parts etc.
<b>Marginal analysis</b>	Comparing marginal ('added') benefits and marginal costs.  Note: When considering <b>marginal analysis</b> , ask whether one should do a bit more or a bit less, given the benefit or cost of the scenario. <b>Total analysis</b> , on the other hand, is the 'all or nothing' principle – either something is done, or it isn't.
<b>Trade-offs</b>	Producing more of one good/service means producing less of another good/service.
<b>Opportunity cost</b>	The highest valued alternative that <u>must</u> be given up to engage in an activity i.e. diverting resources from one product/service into another.
<b>Positive analysis</b>	Concerned with 'what is' i.e. a value-free statement that <u>can</u> be checked by reference to facts eg. 'Reduction in tax rates will lead to an increase in individual spending' – value free, can be checked by facts. Economics is concerned with positive analysis, making models to test value-free statements. Can only show effects of a situation/policy, cannot determine whether something is 'good' or 'bad'.
<b>Normative analysis</b>	Concerned with 'what ought to be' – a value/judgement filled statement that <u>cannot</u> be tested/checked with facts eg. 'Individual should receive reduced taxes as they able to decide how to spend their money better than the government' – judgement filled, cannot be factually analysed. Takes positive analysis a step further, determining whether something is 'good' or 'bad', 'right' or 'wrong'.

## GENERAL NOTES

### Three important assumptions/ideas of economics:

#### 1) *People are rational*

Economists believe consumers/firms use as much of the available info. as they can to achieve their goals, and choose an action only if **benefit outweighs cost** – applies to selling prices to gain optimum profit, purchases of products/services at reasonable costs etc.

*People respond to economic incentives*

- Consumers/firms consistently respond to economic incentives – however, if products/services were free, consumers/firms would have no incentive for using them wisely.

*Optimal decisions are made at the margin*

- Refers to the extra benefit or cost of an economic decision, such as the extra benefit of producing and selling more of a good/service (**marginal benefit**), over the cost to produce that good/service (**marginal cost**) – wages, supplies etc.

Note: Economists reason that the **optimal decision** is to continue an activity up until **marginal benefits = marginal costs** – any further = reduction in total profits.

### Scarcity, trade-offs, and the economic problem that societies must solve

- Problem: Every society only has a limited amount of resources, and therefore can only produce a limited amount of goods/services → face **trade offs**.

Three fundamental questions when facing trade-offs:

#### 1) **What goods/services are being produced?**

- When deciding between goods/services to be produced/provided, companies face an **OPPORTUNITY COST** – the highest valued alternative that must be given up to produce/provide that good/service.

## **EXAMPLE**

Suppose a financial consulting firm wants to run a short economics course – lasts 5 days, expect 30 people to attend.

- Accounting costs include: Room, \$500/day = \$2500; Equipment, \$50/day = \$250; Advertising = \$500; Refreshments = \$20/day (5)/person (30) = \$3000; Materials \$20/person = \$600. Total costs = **\$6850**. However, total revenue = **\$9000**. From an accounting perspective, the course seems to make a **\$2150 profit**.
- BUT! Not all costs have been taken into account.
- If the employee who runs the course works 20 hours/week, and brings in \$250/hour, in one week, they earn the company **\$5000**. Also, the employee will need half a week to prepare = **\$2500**. And they will require the aid of a research assistant, who if he works for the company for 10 hours/week, earning the

company \$100/hour, he earns the company **\$1000/week** – Total costs = **\$8500** – the money that the company could have earned had the course not gone ahead, will be lost.

- Therefore, considering accounting costs of **\$6850** and the **opportunity cost** (money forgone in allowing course to go ahead) of **\$8500**, **\$15350** cost - **\$9000** revenue = LOSS of **\$6350** – course may not be a good idea after all when all costs are taken into account.

Individuals and companies always face trade-offs when making a choice, having to forego the next best alternative choice. This can apply to everyday life, such as watching 1 extra hour of TV will have the **opportunity cost** of having 1 less hour to study/read a book/go out etc.

## 2) How will they be produced?

- Trade-off is usually faced between using workers v. Machines. Machines = precision, but higher cost (opportunity cost), while workers = less cost, but less precision (opportunity cost).

## 3) Who will receive the goods/services?

- Usually those with the highest incomes, and therefore, the ability to purchase goods/services, but wealthy can provide charity, which increases those lower incomes ability to purchase said goods/services.

### Centrally planned economies v. Market/Mixed economies

Economies organised in one of three ways:

*Centrally planned economies* – government decides how resources will be produced/allocated = objective – follow government's orders, not satisfy consumer wants eg. Former Soviet Union

- Generally unsuccessful in producing low-cost, high quality goods/services – standard of living = low.

*Market economies* – decisions of households/firms, but not the government, interacting in markets allocate resources. Reliant on private firms to produce goods/services that meet wants of consumers eg. Australia

- Ultimately, consumers decide what goods/services are produced – **consumer sovereignty**.
- In market economy, income = payments received for goods/services sold – reward hard work, more work = more income.
- Those willing and able receive goods produced.

*Mixed economies* – most economic decisions result from buyer-seller interaction, but the government plays significant role in allocation of resources.

- Government contributes in areas such as provision of welfare services, roads, health services, education etc.
- Economists argue that it's inaccurate to refer to market economies today - most are *mixed*.

### Efficiency and equity

Market efficiency is promoted by **voluntary exchange** – situation where the buyer and seller are both made better off by a transaction - is obvious because transaction would not have occurred if one party lost out.

Market efficiency falls into three categories:

#### *Productive efficiency*

- Goods/services are produced using the least amount of resources.
- Achieved: When competition between firms in markets forces those firms into producing goods/services using the least amount of resources, with the lowest cost.

#### *Allocative efficiency*

- Goods/services are produced that reflect consumer preferences, and allocation occurs throughout economy to produce consumer demand.
- Achieved: When combination of competition between firms & voluntary exchange between firms and consumers, results in the production of goods/services that consumers prefer/demand.

#### *Dynamic efficiency*

- New technologies/innovations are adopted over time.
- Achieved: When firms seek to adapt products/use new technologies to secure share of sales.

**Core idea:** Firms will continue providing goods/services as long as the additional benefit (*marginal benefit*) of production is greater than the additional costs (*marginal cost*) of production – goods/services will reflect consumer preferences (*Allocative efficiency*).

However,

- Even if an economic outcome is efficient, does not mean that it is desirable. People prefer economic outcomes that are **equitable**, even if less efficient;
- **Equity** – ‘fair’/‘equal’ distribution of economic benefits eg. Higher taxes for people with higher incomes so that programs can be constructed that aid the poor.
- **Decisions which are equitable can lead to inefficiency** – in the above eg, people would have less incentive to open businesses if more of their money would be taken by the government = fewer goods/services available.
- Therefore, there is often a **trade-off** between efficiency and equity – in the above eg, goods/services fall, leading to a drop in efficiency, but distribution of income between rich and poor becomes more equal, leading to a rise in equity.

### **Microeconomics v. Macroeconomics**

#### ***Microeconomics***

- The study of how households/firms make choices, how they interact in markets, and how the government influences choices.
- Deals with: Consumers reactions to product prices, what prices firms decide to charge for products (eg. Supply and demand), governmental policy issues.

#### ***Macroeconomics***

- The study of an economy as a whole.
- Deals with: Issues such as inflation, unemployment, economic growth overall.

## Chapter 2: Choices and Trade-Offs in the Market

WORD	DEFINITION/EXPLANATION
<b>Production possibility frontier</b>	Curve showing the <b>maximum attainable combinations</b> of two products that may be produced with <b>available resources</b> .
<b>Capital goods/stock</b>	Goods used to produce other goods. Eg. Machines
<b>Trade</b>	Act of buying and selling, or any exchange. Involves trading for money or any other goods, such as barter or satisfaction. Has to be a <b>voluntary exchange</b> in which all parties are left <b>better off</b> .
<b>Absolute advantage</b>	Ability to produce more of a good/service than competitors <u>using same amount of resources</u> (eg. Workers, time etc).
<b>Comparative advantage</b>	Ability of a party (individual, firm, country) to produce a good/service at a <i>lower opportunity cost</i> than other producers.
<b>Market</b>	A group of buyers and sellers of goods/services, and the institution/arrangement by which they meet to trade.

### GENERAL NOTES

#### Production Possibility Frontiers and real-world trade offs

- All combinations on or inside the frontier are attainable/possible with resources available.
- Combinations on frontier – efficient = all resources fully utilised, fewest resources used to produce a given output.
- Combinations inside frontier – inefficient = maximum output is not being obtained from available resources.
- Combinations outside/beyond frontier – unattainable = not enough resources are available to produce a certain output – more resources required to reach that level of output.
- Best combination? Depends on demand – if for one product, closer to maximum production of that product. If for another, closer to maximum production of the other product.

**Core principle:** Only way to produce more of one product is to produce less of another – **trade-off**.

#### Increasing marginal opportunity costs

##### **Core principles:**

- 1) As an economy moves down the Production Possibility Frontier, it experiences *increasing marginal opportunity costs* i.e. increasing production of one product by smaller and smaller amounts results in larger and larger decreases in production of another product. This occurs because resources are better suited to producing one product than another.
- 2) The more resources already devoted to one activity, the smaller the payoff (i.e. benefit) in devoting additional resources to that activity, and the greater the opportunity cost in other activities.

- Eg. The more hours spent studying = smaller & smaller increases in the overall grade but larger and larger opportunity cost in time spent on other activities.

### Economic growth

#### **'Shift outwards of P.P.F.'**

- Resources in an economy may increase over time – labour force, capital stock.
- Increases in available resources = **shift outwards** of the P.P.F, making possible to produce more of two kinds of goods – raising standard of living.
- Technological advance enables production of more goods with same resources, but does not affect all areas equally.

#### **'Shift inwards of P.P.F.'**

- Reduction in productive resources – maximum output falls. Occurs after natural disasters or wars.

### Comparative advantage and trade

#### **3 different types of trade:**

##### *Different 'starting bundles'*

- If one person has one good, say, apples, and another has another good, say, lemons, and both would **prefer** some apples and some lemons = **better off if they trade.**

##### *Fixed costs of tasks*

- If two people, who are equally talented, want to manufacture two types of goods, such as clothes and furniture, but it would be too costly to produce i.e. in terms of time, equipment etc., they can produce more of less if **each specialises in producing one item, and they trade.**

##### *Absolute advantage v. Comparative advantage*

- If a person is able to produce more of a good/service than their competitors, using the same amount of resources, they are said to have an **absolute advantage**.
- **Adam Smith** theorised that if two parties were to produce the good/service that each has an *absolute advantage* in, trading for items they had an *absolute disadvantage* in, **both would be better off.**

**BUT!** Absolute advantage has nothing to with **gains from trade!**

As a result, **David Ricardo** theorised that if two parties who have different opportunity costs were to specialise in an area in which they had a *lower cost*, then trade for a product in which they have a *higher cost*, or products/services they need, both parties would be better = **COMPARATIVE ADVANTAGE**.

- **Core idea:** The basis for trade is comparative advantage, not absolute advantage.

## The market system

### *Two types of markets*

- 1) **Product markets** – markets for goods/services.
  - **Demanders** = buyers.
  - **Suppliers** = sellers.
- 2) **Factor markets** – markets for the factors of production i.e. inputs of goods/services. 4 categories of factors:
  - a) **Labour** – all types of work.
  - b) **Capital** – goods used to make other goods eg. Machines.
  - c) **Natural resources** – Raw materials used in production eg. Minerals.
  - d) **Entrepreneurial ability** – ability to bring together the other factors of production to produce & sell goods/services. Note: Entrepreneurs = someone who operates a business.
  - **Suppliers** = households.
  - **Demanders** = firms.

### *The market mechanism*

- **Adam Smith** theorised that prices would do a better job of co-ordinating activities of buyers and sellers than dictators would → later developed by **Friedrich Hayek**, who expanded the idea to say that it was so because the *dictator never has enough information to make the right choices*.
- **Smith** based this idea on the assumption that *individuals usually act in a rational, self- interested way* i.e. take those actions most likely to leave them better off financially – don't need dictators/governments to tell them how to spend = **core principle of economics**.
- Further, Smith coined the theory of **price mechanism** – price changes affect the behaviour of firms and consumers i.e. firms respond to change in prices by making decisions that satisfy the wants of consumers.

## Legal basis of a successful market system

### *Protection of private property*

- **Core idea:** Market systems won't work unless parties are willing to risk funds by investing in business.
- However, to protect interests of investors, **property rights** have been developed.
- **Property rights** = rights individuals/firms have to the exclusive use of their property, including the right to buy/sell it.
- **Property** includes:
  - *Tangible, physical property* – eg. Shops/factories/goods.
  - *Intangible property* – eg. Ideas.
  - *Intellectual property* – eg. Books, films, music, ideas for products.
- **Protection** – government granting patents & copyrights to inventor/producer for a period of years from date of invention/production – results in firms spending money on research/development of products and ideas.



*Enforcement of contracts, property rights*

- Enforcement will only be successful if the court system is independent and able to make impartial decisions based on law.
- If **not well enforced** = production of goods/services will be reduced → reduction in efficiency = economy inside P.P.F.



← Adam Smith



David Ricardo →