AQA A Level Economics Course Companion

Year 2 Topics

Microeconomics

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Individual economic decision making

The concept of utility

- Utility is a measure of the satisfaction that we get from purchasing and consuming a good or service
- Total utility:
    - The total satisfaction from a given level of consumption
- Marginal utility
    - The change in satisfaction from consuming an extra unit
- Standard economic theory believes in the idea of diminishing returns i.e. the marginal utility of extra units decline as more are consumed

Utility is a measure of satisfaction from consumption

Does the utility we get affect our willingness to pay?

Diminishing Marginal Utility and Demand Curve

- Marginal utility is the change in total satisfaction from consuming an extra unit of a good or service
- Beyond a certain point, marginal utility may start to fall (diminish)
- This happens with the 4th unit where MU falls to 12
- The 8th unit carries zero marginal utility i.e. total utility is constant
- If marginal utility is falling, then consumers will only be prepared to pay a lower price
- This helps to explain the downward sloping demand curve for a good or service

Quantity Consumed	**Total Utility (TU)**	**Marginal Utility (MU)**
1	10	10
2	24	14
3	40	16
4	52	12
5	61	9
6	68	7
7	72	4
8	72	0

The Paradox of Value

Cheap water

Expensive jewelry

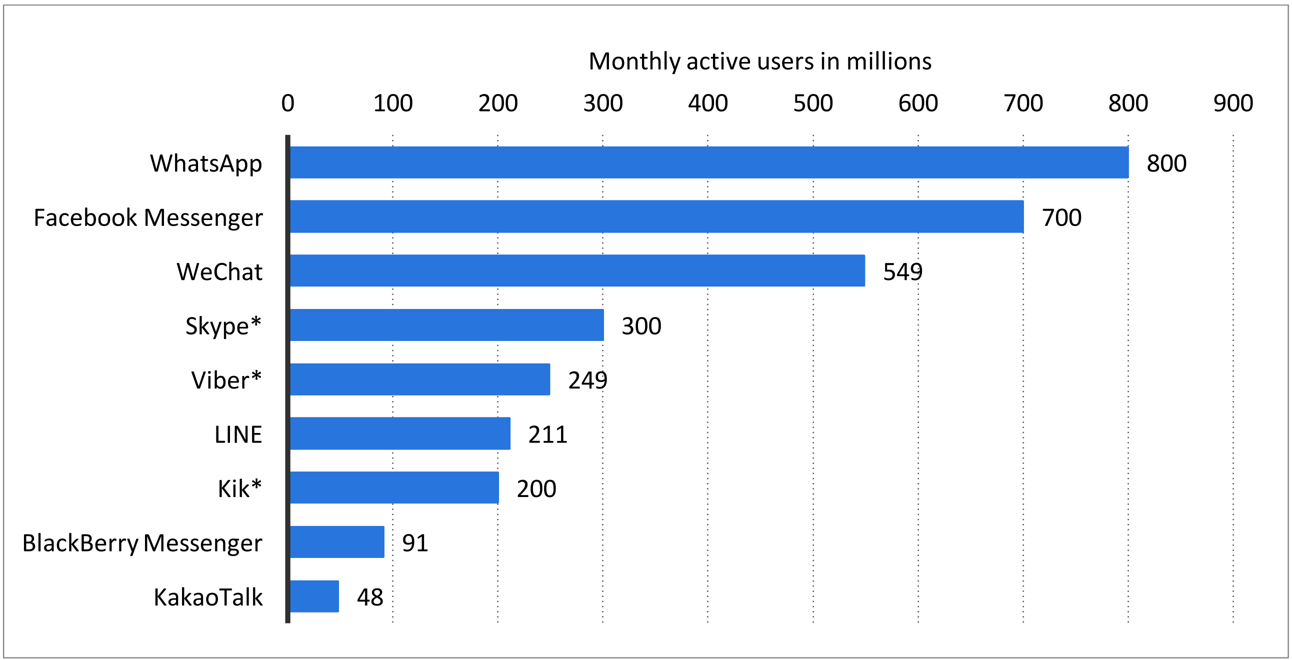
- The Paradox of Value is also known as the diamond-water paradox
- We understand that water is necessary to sustain life and that ornaments such as diamonds are just that – certainly life sustaining.
- But water typically has a low price, while a piece of diamond jewelry has a high market price.
- One reason is that water is abundant relative to demand whereas diamonds are scarce relative to demand
    - **Value in use** i.e. drinking water to satisfy your thirst
    - **Value in exchange** – what a resource can be sold for in exchange for other products. Nothing is more useful than water: but it will purchase scarce anything. The reverse is usually true for expensive jewelry

Social & Emotional Factors Influencing Demand

- **Social factors:**
    - Social awareness e.g. awareness of health risks from smoking, gambling
    - Social norms - changing norms of behaviour e.g. demand for recycled bags
    - Social pressures e.g. peer pressures affecting demand for legal highs & other drugs
- **Emotional factors:**
    - Emotional arousal can affect the demand for health insurance after major incidents
    - Binge drinking and eating at times of personal insecurity
    - Demand for products such as football season tickets and antiques also has a strong emotional attachment

Networks and demand choices by consumers

Increasingly in the digital economy, the choices made by consumers are influenced by the decisions of others. A good example is the decision about which messenger app to use – the data below is taken from figures published for July 2015.



Imperfect Information

- Information failure occurs when people have inaccurate or incomplete data and so make potentially ‘wrong’ choices / decisions
- In competitive markets, it is assumed there is perfect information – i.e. consumers and producers have full knowledge about prices, benefits and costs of the goods and services available.

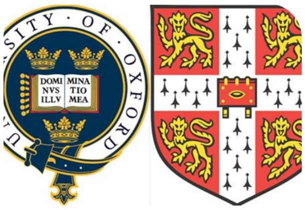
There are many causes of information failure

1. Long-term consequences: Information gaps about long term benefits of costs of consuming a product e.g. consumption of legal highs
2. Complexity: Information failure when a product is highly complex e.g. understanding the best pension product to buy (if at all!)
3. Unbalanced (asymmetric) knowledge: i.e. when the buyer knows more than the seller, or the seller knows more than the buyer
4. Price information: When consumers are unable to quickly / cheaply find sufficient information on the best prices for different products

In nearly every market we find examples of “information gaps”

Risks from using tanning salons


Addiction to painkillers & other drugs



Gaining entry to elite degree courses

Complexity of pension schemes

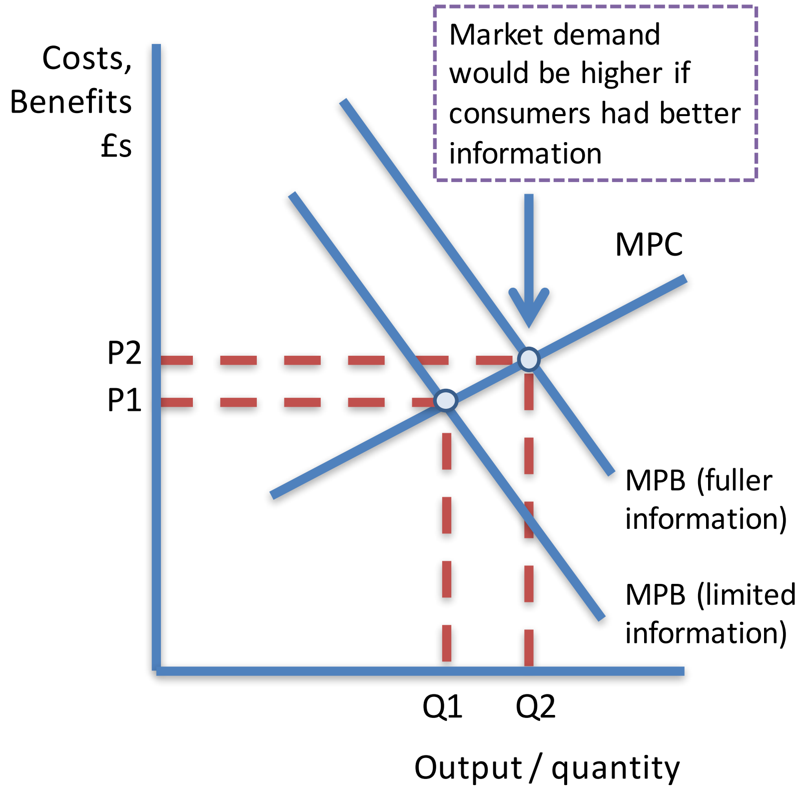
Uncertain quality of second hand products


Knowledge of the nutritional content of foods


Cowboy builders or other “rip-off merchants”


Tourist Bazaars or buying and selling antiques

Information gaps and market failure



Individuals may have **imperfect information** about their own private benefits. If they had better information on the **benefits to themselves** of consuming a good or service, the **marginal private benefit curve** would shift outwards leading to a **higher equilibrium quantity**

Asymmetric Information in Markets

Asymmetric information is when there is an imbalance in information between buyer and seller which can distort choices, Examples of asymmetric information include the following:

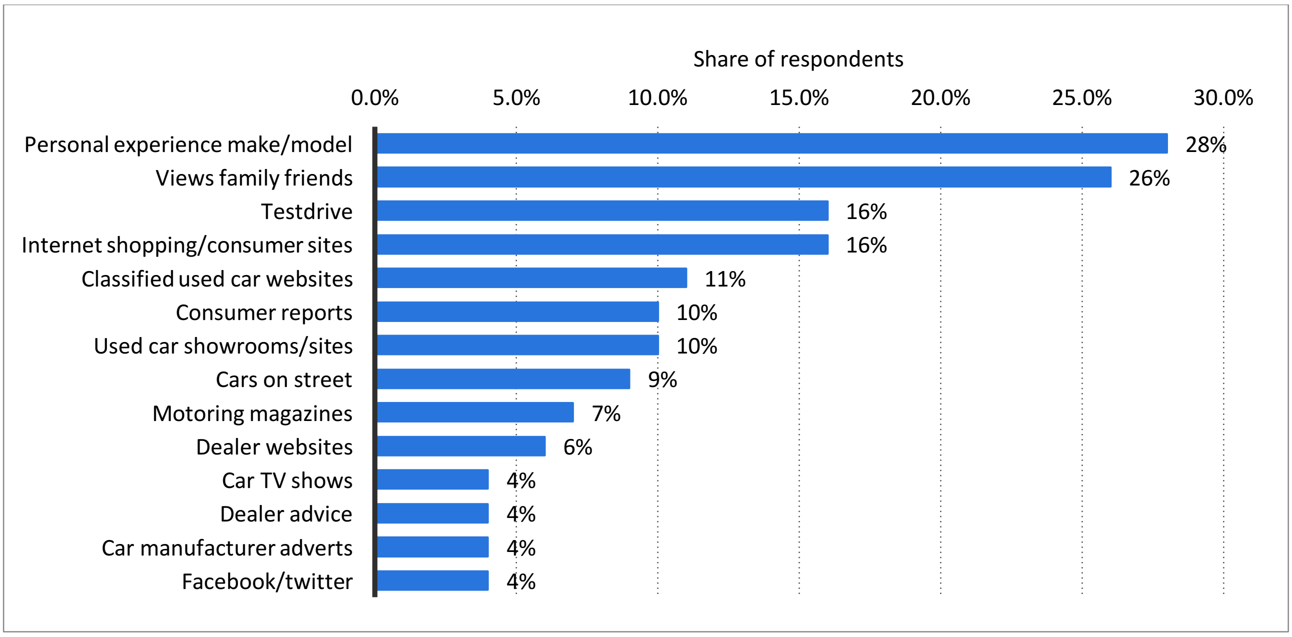
- Landlords who know more about their properties than tenants
- Mortgages: A borrower knows more about their ability to repay a loan than the lender, insufficient checks might be made
- Car insurance companies cannot tell the risks associated with selling premiums to each single driver – they have to pool risks
- Some students have superior knowledge about how to get into the elite / best universities including which prior courses to take
- Doctors have superior knowledge about drugs and treatments
- A used-car seller knows more about vehicle quality than a buyer
- Information advantages for high-frequency stock market traders

Policies for Addressing Information Failures

Government action can improve information to help consumers and producers value the actual cost and/or benefit of a good or service.

1. Compulsory labelling on products (cigarettes)
2. Improved nutritional information (labelling systems) on food & drinks
3. Hard-hitting anti-speeding advertising to reduce the number of road accidents
4. Campaigns to raise awareness of the risks of drink-driving / drug abuse
5. Campaigns on dangers of gambling addiction
6. Performance league tables for schools
7. Consumer protection laws e.g. right for refunds of faulty goods
8. Industry standards / guarantees for selling used products such as second hand cars

The used car market has plenty of asymmetric information because potential buyers of a vehicle know less than the seller about the car's quality. The chart below tracks a survey which asks consumers in the UK, "What influences the type of used car you would consider buying?



Behavioural Economics

For most of the Year 1 microeconomics course we assumed that:

- Rational consumers wish to maximize their satisfaction or utility from consumption by correctly choosing how to spend their limited income.
- Producers/firms wish to maximize profits, by producing at lowest cost the goods and services that are desired by consumers. Profit = total revenue – total costs.
- Government wishes to improve the economic and social welfare of citizens.

Behavioural economics theories challenge the assumption of pure rationality in our decisions.

Nudging out choices

- Behavioural Economics tries to mix insights from Psychology with Economics, and looks at problems through the eye of a "Human", rather than an "Econ".
- It uses insights from psychology to explain why people make apparently irrational decisions such as why people eat too much, take too little exercise, or do not save enough for retirement.
- An "Econ" is said to be infinitely rational and immensely intelligent, an emotionless being who can do cost-benefit analyses at will, and is never (ever) wrong.
- Most of us are not infinitely rational, but rather face "bounded rationality", with people adopting simple, intuitive "rules of thumb" instead of calculating optimal solutions for every decision they make.

Bounded rationality

- Most consumers and businesses do not have sufficient information to make fully-informed judgements when making their decisions
- The increasing complexity of products also makes life difficult

- Bounded rationality suggests that consumers and businesses opt to satisfice rather than maximise
- They will use rules of thumb and approximations when active in different markets

A bewildering range of cleaning products!

Many people do not understand complex pensions

There are search costs in seeking out all available information

Lots of people rely on rules of thumb when making choices

Heuristics

- Heuristics are best described as mental shortcuts or rules of thumb for decision-making to help people make a quick, satisfactory, but perhaps not perfect, answer to a complex question.
- The economist Gerd Gigerenzer argues that heuristics can be an optimal way to respond to occasions where we lack information or time. People learn from experience and develop many different heuristics over time
- Optimal behaviour is not the same as maximizing behaviour

Diving a pizza using 1/n

Following the 5 a day principle

Rules for search behaviour online

I just want a another burger like last time!

Default biases in choices

- People prefer to carry on behaving as they have always done.
- Repeat choices / purchases often become automatic because default choices don't involve much mental (cognitive) effort
- To get people to change behaviour may require compelling incentives
- Examples:
    - Your choice of daily breakfast cereal / razor / sandwich preference
    - Political preferences in elections e.g. preferring the status quo

Most of use choose the same breakfast!

Our menu choices at places such as Nando's are predictable

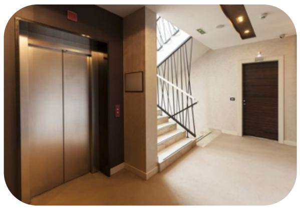
A default opt-in (or auto enrollment) can have a powerful effect

Choice architecture

- Choice architecture describes how the decisions we make are affected by the layout / sequencing / and range of choices that are available
- For example, getting students to eat more helpfully might involve altering the design of the school or college restaurant
- Smart building designs might make it more attractive / easier to take the stairs rather than use a lift!
- Choice architecture is often more effective when it encourages simplicity in the decisions that people have to make and in which the benefits and costs are made clear.

Getting more people to use the salad bar at lunch

Traffic flow & speed is influenced by the road architecture



How can we encourage people to avoid the lift and take more exercise?

How best to get people to use hand sanitizers more frequently?

Choices influenced by social norms

- Our day-to-day behaviour in markets is influenced by prevailing social norms or social customs
- Examples:
  - The changing social stigma of drink-driving and speeding on the roads
  - Observing white lines in car parks
  - Queuing behaviour in shops
  - Impact on people's behaviour of smoking bans in public places
  - Making seat-belts compulsory – this appears to have created conventions which then became self-sustaining
- Social norms about "giving" e.g. for charitable fund-raising
- Social networks can amplify different forms of behaviour (for good or bad)

Social norms become accepted by the majority of a given community of people

Respecting seat belt laws

Social norms when queuing

Not smoking in public places

Social norms at the pub such as buying a round of drinks

Herd behaviour

- We are herd animals and we often make decisions based in part on who is around us and the choices they make
- Examples:
  - Choosing items off a menu in a restaurant
  - Herd behaviour of investors in financial markets
  - Binge drinkers going on holiday with each other
  - Fanatical supporters of football clubs

Herd behaviour is often seen in financial markets

Amazon Prime – people don't want to miss out on a great deal

Ratings systems for hotels, books, general products

Anchoring

- Value is often set by anchors or imprints in our minds which we then use as mental reference points when making decisions.
- Some anchors establish in our mind a low price; others help to establish a higher basic price that we should be be prepared to pay on a regular basis
- Examples of price anchoring:
  - "Big Price Drop" campaigns by supermarkets
  - Refereeing decisions might be anchored by the size of home crowd
  - Price anchors are used in menus at restaurants and in coffee shops
  - Recommended tips used by taxi companies / restaurants

Offer price for houses on sale is an anchor for potential buyers

Pricing of new products such as the Apple Watch

McDonalds has a lower anchor price than Starbucks

Priming

- Our behaviour by cues that work subconsciously and prime us to behave / choose in certain ways
- Examples of priming to change behaviour:
    - Playing of certain types of music in a shopping mall / priming through aroma
    - Subliminal cues in films / TV adverts, subliminal cues before an interview
    - Students signing an honor-code at university before they hand in assignments
    - Showing pictures of older citizens may cause people to walk more slowly
    - When a picture of a woman appeared on a math test, female students were reminded to recall their gender and performed worse on the test (Shih et al 1999)

How effective is subliminal advertising?

Labelling a product as premium affects our expectations!

Is there less plagiarism with an honour code at university?

Framing

- Framing a question or offering it a different way often generates a new response by changing the comparison set it is viewed in – small details matter!
- Altering what information is provided, and its design can help people make better decisions
- People who use narrow framing often draw heavily on automatic / default assumptions
- Examples of framing:
    - Framing of privacy settings on social networks such as Facebook
    - Presumed consent for human organ donations to increase the supply of organs
    - Framing of referendum questions
    - Framing of interest paid on loans
    - Asymmetric framing
    - Involves including an obviously inferior 3rd choice or a hyper-expensive 3rd option rather than a simple expensive/cheap choice can guide consumers to more expensively-priced items

90% fat free or 10% fat? Which is most effective in shaping spending?

The framing of the Greek referendum ballot paper may have been important

Availability Bias / Availability Heuristic

- Biases affect how people process complex information

- The availability bias happens we people often judge the likelihood of an event, or frequency of its occurrence by the ease with which examples and instances come easily to mind.
- Most consumers are poor at risk assessments – for example they over-estimate the likelihood of attacks by sharks or list accidents.
- Smokers may see one elderly heavy smoker and exaggerate the likely healthy life expectancy of this group.
- Periods of very warm weather affect beliefs about causes of climate change
- People buy more lottery tickets if a big winner has lived locally


The majority of people are poor at estimating probability


After an air crash, more people take the train fearing another accident


Seeing an older heavy smoker in the media may cause the availability bias

Commitment Contracts and Choices

- There is often a divide between intention and action especially for people with limited resolve and those vulnerable to temptation!
- The more public our position, the less willing we are to change it
- We feel strongly about activities where we have made a personal commitment
- Commitment contracts can reinforce decisions to adopt healthful behaviors
- They impose a penalty if people do not reach a goal – invoking loss aversion
- Conditional cash transfers (CCTs) have become popular in many poorer countries
- Examples:
  - Committing yourself to a diet using an online app
  - Commitment to joining a local savings scheme /credit union
  - Commitment signals to a partner using an expensive gift

Pre-commitment can cement a choice


We are more likely to value self assembly furniture we buy

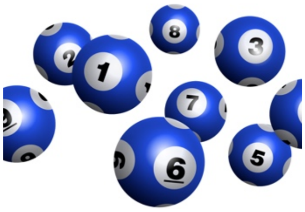
Commitment apps are becoming more popular!

Some Behavioural Economics in Action

Organ Donation and the importance of form design

Cash incentives from the NHS to help stop people smoking

"Chunking" to increase the rate of drug treatment completion



Lotteries to encourage weight loss or cut speeding on roads

Using simple checklists in hospitals to reduce number of x-rays

Choice architecture to encourage healthy eating

Using the aroma of disinfectant gel to encourage regular use in hospitals

Adding £160 cost of appointment to a text reminder reduced NHS non-attenders by 25%

"Help your friend raise even more money by sharing their page" raised giving by 28%

Auto-enrolment combats status quo bias for pensions

Align teacher interests with student learning with social rewards

Critical Evaluation: Are Behavioural Nudges Effective?

- Behavioural economics may encourage government to become too paternalistic in their policies attempting to nudge behaviour
- Behavioural economics focuses too heavily on people's vulnerability to fall for fallacies and their psychological biases – it can give the impression that consumers are dumb
- In fact, consumers using well-practiced rules of thumb might be operating in a rational way
- There are clear limits to the application of nudge theory – it may be useful in changing minor behaviours in a modest way but not in deep rooted psychological problems such as alcoholism and street violence
- Conventional policy interventions such as taxes, subsidies and regulations are often just as effective as nudges

Public and Private Sector Organisations

Public sector organisations are wholly or partly owned and run by the state / government.

Examples of public sector organisations in the UK

- British Nuclear Fuels plc.
- Network Rail
- Bradford and Bingley
- Royal Bank of Scotland
- Urenco – the UK government has a 33% stake in this uranium enrichment company
- Companies House
- The Met Office
- Ordnance Survey
- Nuclear Decommissioning Authority
- The UK government also has a stake in Channel 4 Television, Eurostar, the Royal Mint and the Green Investment Bank

Privatisation

- Privatisation means the transfer of assets from the public (state or government) sector to the private sector of an economy – privatisation causes a change of ownership
- In the UK the process has led to a reduction in the size of the public sector.
- State-owned enterprises now contribute less than 2 per cent of GDP and only 1.5% of total employment.
- Privatisation has become a common feature of micro-economic reforms throughout the world not least in many transition economies including a large number in eastern Europe
- But over recent years privatisation in the UK has given way to a new wave of nationalization including some high profile banks, building societies and transport services.

Privatizations in the UK over the years

- Associated British Ports (1983)
- British Aerospace (1980)
- British Airports Authority (1986) – bought by Ferrovial in 2006
- British Airways (1987)
- British Coal (1994)
- British Gas (1986)
- British Petroleum – Gradually privatized between 1979 and 1987
- British Steel (1988)
- British Telecom (1984)
- National Power and PowerGen (1990)
- Regional water companies
- Plasma Resources UK – a blood plasma business sold to Bain Capital in 2013
- British Waterways – which became a charitable trust in 2012
- The Tote – sold to Betfred in 2011
- The Royal Mail (2013) – fully privatized in 2016

Profit and Not-for-Profit Organisations

Producer Cooperatives

- Co-ops are owned <u>and</u> run by their members, who can be customers, employees or groups of businesses.

- The supermarkets-to-funerals Co-op Group is the biggest, followed by John Lewis Partnership, the retailer.
- Farmers’ co-ops are popular in the UK.
- Other co-ops include community pubs, supporter-run football clubs and foster care and local childcare providers
- These businesses are founded and run on principles of shared ownership, shared voice and shared profits.

Social Enterprises

- A social enterprise is a not-just-for-profit business created to address a social problem
- Profits are reinvested for one or more social purposes in the community, rather than the need to satisfy investors
- In 2013, research found that there were 70,000 social enterprises in the UK contributing over £18bn to the economy and employing hundreds of thousands of people.
- Good examples of social enterprises include Jamie Oliver’s Fifteen restaurant chain, the Big Issue magazine and the Eden Project in Cornwall

Not for Profit & Not for Dividend Firms

- Not for profit businesses are charities, community organisations that are run on commercial lines
- Network Rail is a good example to use:
    - Network Rail’s purpose is to deliver a safe, reliable and efficient railway for Britain
    - It is a company limited by guarantee – whose debts are secured by the government
    - Network Rail is a "not-for-dividend" company - profits are invested in the network.
    - Train operating companies such as First Great Western and Virgin Trains pay Network Rail for use of the rail infrastructure when running services
    - Network Rail is given targets for punctuality and safety by the Rail Regulator

The BBC

The BBC runs as a public sector enterprise, in comparison to private sector rivals like Sky and ITV. A sizable proportion of the BBC’s income is derived from commercial activities. According to the BBC's 2013/14 Annual Report, its total income was £5,066 million broken down as follows:

- £3,726 million in licence fees collected from householders;
- £1,023 million from the BBC's Commercial Businesses;
- £245 million from government grants, of which £239 million is from the Foreign and Commonwealth Office for the BBC World Service;
- £72 million from other income, such as rental collections and royalties from overseas broadcasts of programming

Corporate Social Responsibility (CSR)

Corporate social responsibility (CSR) happens when companies integrate social and environmental concerns into their business operations and in their interaction with their stakeholders on a voluntary basis. Some reasons why firms are embracing CSR include:

1. Altruism – being a good citizen
2. Contracting benefits – e.g. helps recruit, motivate and retain good quality employees
3. Customer-related motivation: attract customers; brand positioning
4. Improved financial performance: Socially responsible actions can be profitable
5. Lower production costs (i.e. less packaging, more efficient energy usage)
6. Risk management – address potential legal or regulatory action

7. Improved access to capital – for example, the rise ethical investment funds looking to make equity investments in companies with strong CSR reputations

The Debate on Social Responsibility

- Not all business organisations behave in a socially responsible manner
- Some argue that it is not the job of commercial private-sector businesses to be concerned about social issues and problems

Two schools of thought:

1. **Free market view**: the job of business is to create wealth for shareholders
2. **Corporate social responsibility view**: business should be concerned with social issues

The business case against CSR:

- The only social responsibility of business is to create shareholder wealth
- The efficient use of resources will be reduced if businesses are restricted in how they act
- Businesses cannot decide what is in society's interest
- Extra costs will be incurred which must be passed on to consumers
- CSR stifles innovation

Counter-arguments – the Stakeholder View

- Businesses do not have an unquestioned right to operate in society
- Those managing business should recognise that they depend on society
- Business relies on inputs from society and on socially created institutions
- There is a social contract between business and society involving mutual obligations that society and business recognise that they have to each other