Notes on imperfect and asymmetric information for AQA Economics

Written by Tom Furber, https://tfurber.com/aqa-economics/

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Why information is important for decision-making

Information is important for decision-making. Without information about the prices and utility from consuming a good, consumers cannot make decisions that maximise their utility.

Similarly, if firms did not know their cost and revenues, firms cannot make decisions that maximise their profits or achieve some other goal. The absence of information prevents agents, such as consumers and firms, from making rational decisions.

Definitions

Imperfect information means parties involved in a transaction do not have full information.

Asymmetric information means one party has more information than the other party.

- For example, buyers may have less information than sellers.
- Asymmetric information is a type of imperfect information.

There are two types of information-related market failures.

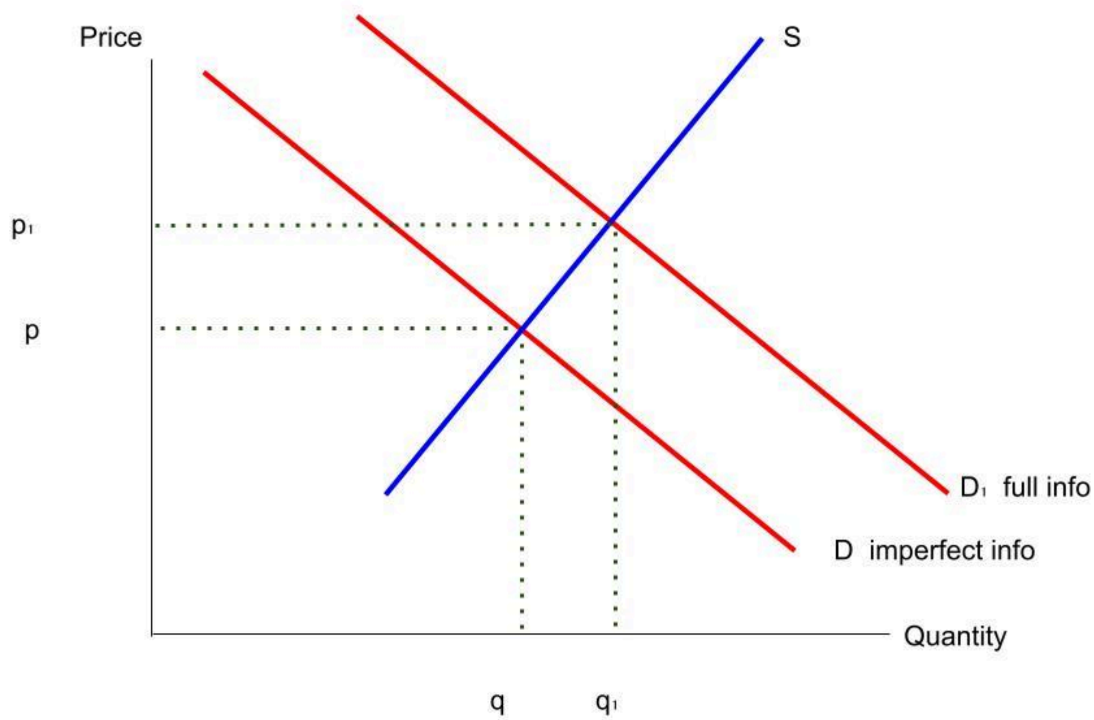
- **Consumers' lack of information** about long-term private benefits or harms from consumption.
- **Asymmetric information** – this includes moral hazard and adverse selection.

Consumers’ lack of information

Consumers may lack information or awareness about the long-term private benefits or risks associated with consumption.

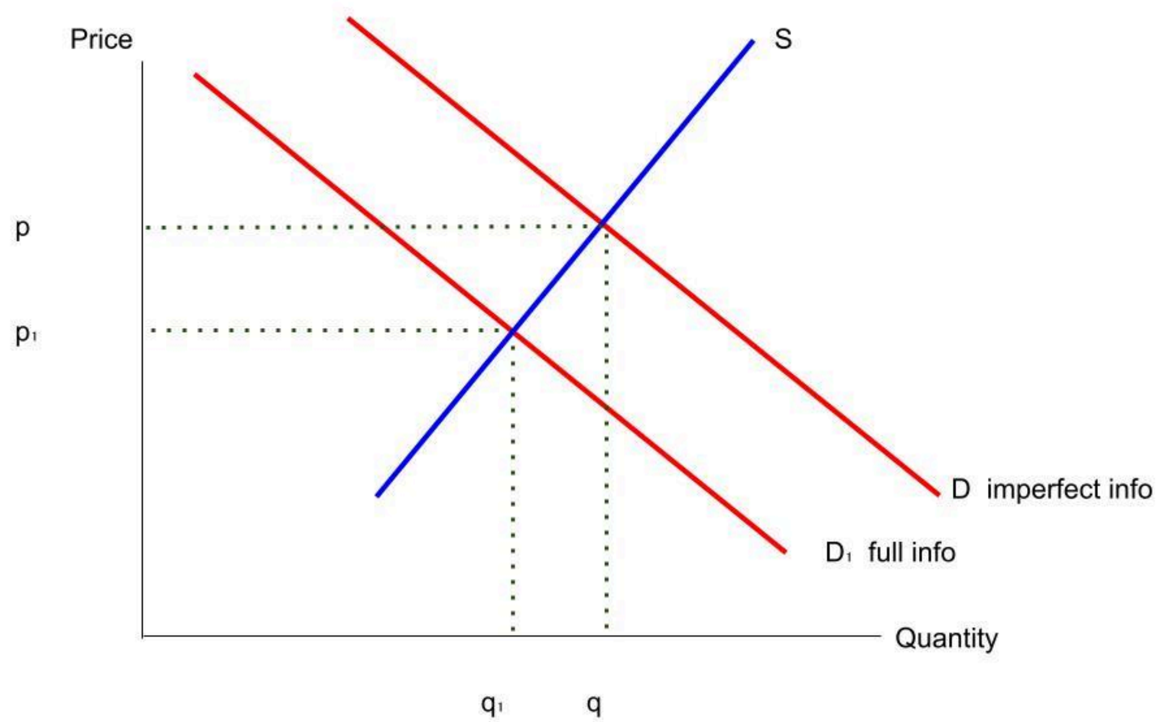
Lack of awareness about long-term private benefits

- Consumers may lack information about long-term private benefits of consuming a particular good.
- For example exercising today may reduce risks of illness in the future.
- Other examples include healthcare, education and pensions.
- These are types of “merit goods”: goods that are underconsumed in the free market.
    - [Other goods, such as those with positive externalities can also be considered merit goods].
- So consumers underestimate the benefits of consuming the good.
- So there is lower demand (demand curve at D rather than D1 under full information).
- This leads to a lower quantity (quantity at q rather than q1) than optimal. See the diagram below.



Lack of knowledge about long-term harms for consumers

- Consumers may instead lack information about the long-term harms from consumption. This leads to consumers overestimating the private benefits from consumption.
- For example consumers may not consider the personal harms from consuming cigarettes in terms of increased risk of lung cancer.
- Other examples include unhealthy food and alcohol consumption.
- These are types of "demerit goods": goods that are overconsumed in the free market.
    - [Other goods, such as those with negative externalities, can also be considered demerit goods].
- This means the demand curve is higher at D than it would be with full information at D1. See the diagram below.
- So there is overconsumption in the free market at q compared to the optimal quantity q1.



Evaluating consumers' lack of information

1) Government lack of information

- The government or regulator may not correctly estimate the extent to which consumers under- or overestimate the benefits from consumption.
- It may be that consumers consume goods knowing their benefits and dangers completely.
- Therefore, the government may not be able to tell whether there is under- or overconsumption of a good.

2) Education and advertising

- Advertising and education may reduce the extent of information gaps.
- For instance, there could be more education on the dangers of cigarettes and advertising on cigarette packaging on the health risks from consuming cigarettes.
- This does not need to come from government intervention. Instead, greater information could be available through technological progress, making it easier to access the information, as well as charities providing the information.
- This may increase the level of information available to consumers.
- This may reduce demand for cigarettes, reducing the extent of market failure.

Asymmetric information

There are two key types of asymmetric information:

<u>Moral hazard</u>

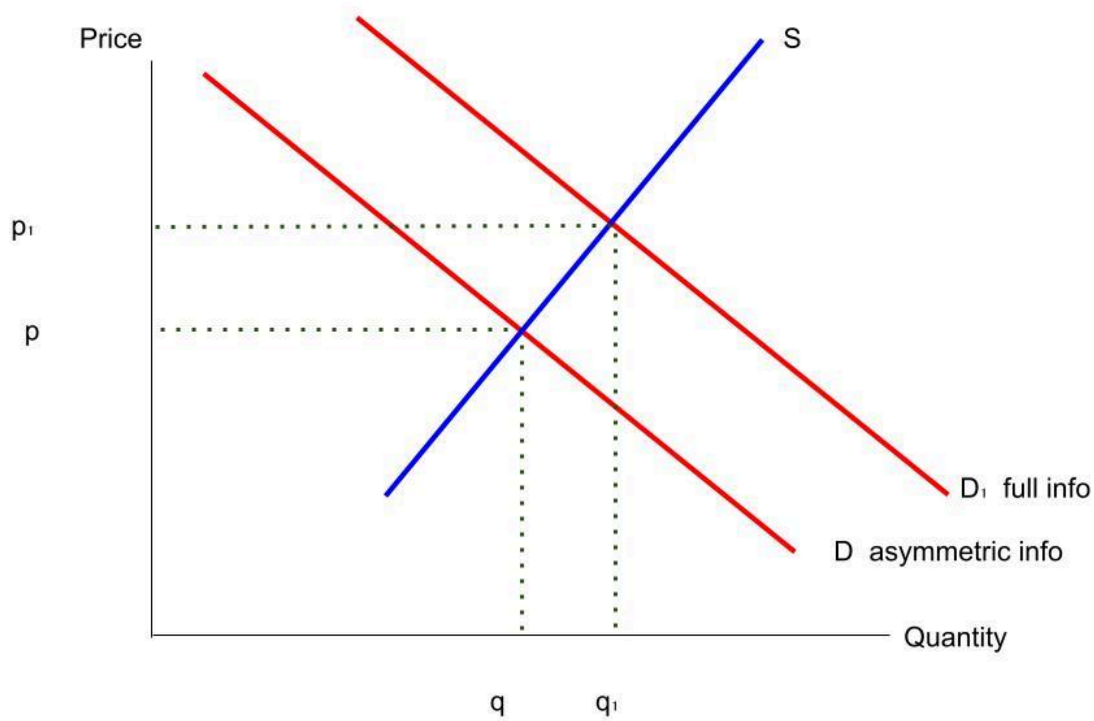
- Moral hazard – being insured against a risk makes someone more likely to engage in riskier behaviour.
- This is also called hidden action. Whether an insured party engages in risky or non-risky behaviour is unknown to the insurer.
- Examples:
    - Health insurance markets. Those who buy health insurance may engage in riskier behaviour, such as excess drinking or not eating healthily.
    - Healthcare provided free at the point of use, such as the National Health Service (NHS). Healthcare is provided free when used, but is funded through tax revenues. Knowing they can receive free healthcare if needed may encourage riskier behaviour and less taking care of health.
    - This can also be applied to life insurance, car insurance or to the government bailing out banks during the 2008 global financial crisis.

- If people engage in riskier behaviour, insurance companies will have to pay more out as more people make insurance claims.
- In a health insurance market, this results in higher costs for health insurers. So the supply of health insurance shifts left. This raises healthcare prices and results in too few people being insured for healthcare, compared to the optimal outcome.
- Problems also occur if healthcare is provided free at the point of use. Taking risks with health means more operations may be required, increasing the cost to the government of funding healthcare. This comes at an opportunity cost or may require the government to raise taxes.
- However moral hazard can be mitigated.
    - For example, insurers can request customers pay part of any insurance claim, so that the consumer has "skin in the game". This discourages insurance customers from engaging in risky behaviour.

<u>Adverse selection</u>

- **Adverse selection** – buyers and sellers have different information. This is often about the quality of a good or service or the "type".
- Examples include **used cars**, or insurances such as health and car insurance.
- Sellers may know more than buyers about the condition of used cars.
    - For example, sellers may know which parts of the car work and which are faulty.
    - However buyers cannot tell if used cars are in good condition or not.
    - This means demand for used cars is lower under asymmetric information compared to under full information.
    - See the diagram below.
    - This means that too few high quality used cars are sold, compared to the socially optimal outcome.
- Adverse selection can also apply with buyers knowing more than sellers. A buyer of health insurance may know more about their own state of health than a health insurance company.
- However, there are many solutions to adverse selection problems.
    - For example, governments can require by law that **sellers disclose any problems with cars**.
    - **Review systems** for the different sellers may also reveal whether sellers are selling high quality or low quality goods. If a product has good reviews, this suggests the product may be of a higher quality.
    - Sellers of high quality goods could also offer **warranties or guarantees.**

- A warranty is a promise to repair parts of the good or the entire good within a certain time period. A guarantee could be a refund if the customer does not like the product.
- Sellers of low quality goods cannot afford to offer warranties or guarantees as they would have to repair the good too often.
- So sellers of high quality goods are more likely to offer warranties or guarantees.
- Warranties /guarantees can therefore signal the quality of the good.



We can use a diagram to show adverse selection. The diagram above shows the market for high quality used cars.

- Consumers may be more wary about buying used cars, due to being uncertain about the true quality of the car.
- This could lead to demand for good quality used cars being lower at demand curve D.
- This can be compared to when consumers have full information, where they would realise these cars are in fact high quality.
- This would lead to demand on the curve D_1.
- As a result of asymmetric information, good quality used cars may be underconsumed by amount (q_1-q).

Practice question on information failure in the style of AQA Economics A Level

Below is a practice question written in the style of AQA Economics A-Level. It features a short extract followed by a practice question.

Extract: *Buying a used car comes with the risk of faults with the car on purchase. However under the Consumer Rights Act 2015, some used car sellers are legally required to take the used car back from the buyer in event of faults. This act does not cover all types of used car sale.*

Question: Explain how asymmetric information can lead to market failure. (15 marks)

Related resources for AQA Economics

Resources for AQA Economics: https://tfurber.com/aqa-economics/

Resources for Paper 1 (micro) AQA Economics: https://tfurber.com/paper-1-aqa-economics/