

## Chapter 2: Individual economic decision making

### Application of economics in the real world

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#### Application of economics in the real world 2.1: Adam Smith's diamonds and water paradox

- 1 Scarcity can be defined as a situation in which demand for a good exceeds supply. Marginal utility is the extra satisfaction, pleasure, fulfilment of need or economic welfare received when consuming an additional unit of a good.
- 2 Opals and rubies.
- 3 The price of a product in a market economy is determined by the forces of demand and supply. The price that producers attach to a product reflects their costs of production and the value they believe that buyers place on the product. Firms that produce bottled water incur significant costs but operate on a large scale. This enables them to spread their overheads over millions of units and the average cost of producing a bottle of water is low. Water is plentiful and the plastic needed to make the bottle is relatively cheap. If the price of bottled water starts to rise, new companies can enter the market in search of profits and the price will fall. In contrast, there are very few viable diamond mines in the world. The mines that are working are dangerous and considerable resources need to be deployed to extract new diamonds from the earth. There is a high demand for the limited diamonds that are for sale on the market and buyers have to offer sellers a high price to agree the sale. The high price attracts new firms to enter the market, but they struggle to find new mines that are viable to operate. Hence, the supply of diamonds remains scarce.
- 4 In normal market conditions, a diamond will be valued at hundreds or thousands of pounds, whereas a bottle of water will be priced close to a single pound. Therefore, in an everyday situation it is irrational to exchange a diamond for a bottle of water because it makes more sense for the owner of the diamond to sell the jewel at its market price and then use £1 to buy the water. However, in extreme circumstances it may be rational to exchange a diamond for a bottle of water. If water is extremely scarce, individuals may be confronted with death within a few days unless they can find clean water. In such circumstances, the value of a rare stone is less than the value of life-saving clean water and it would be rational for an individual to buy a bottle of water with the diamond.

#### Application of economics in the real world 2.2: The market for 'lemons'

- 1 Asymmetric information is a situation when one party in a market transaction possesses less information relevant to the exchange than the other.
- 2 The seller of a second-hand car knows more about the car's defects than a prospective buyer. The buyer has an incentive to fear the worst about the car and to offer a lower price than the seller wishes to receive. However, a buyer with good knowledge of car mechanics may be able to redress this knowledge imbalance and offer a price which accurately reflects the car's true value.
- 3 The markets that are most affected by asymmetric information are ones where a high level of technical expertise is needed to produce and supply the product. An example is the market for healthcare, where professionals, such as dentists and orthodontists, spend years studying at medical school to achieve extensive qualifications and build up expertise. When they treat patients and recommend treatments, in the vast majority of cases patients have to trust the

professional opinion of the dentist or orthodontist. The patient does not have sufficient knowledge of medical issues and at best can seek a second opinion, which is time consuming. Patients will often buy medical treatments based on the advice offered by healthcare professionals.

- 4 The price of a good reflects the value that the seller places on the product. If a seller has priced a good cheaply, it could be a great opportunity or a signal that there is something wrong with a product. The market for used cars provides examples of both cases.

If the owner of a used car seeks a quick sale, they may price their car cheaply to create incentives for buyers. There are many reasons why a seller may act in this manner. For example, if time is scarce, the seller may want a quick sale as the opportunity cost of waiting for a higher price means that they cannot get on with other projects. They may need to sell the car to release money to pay other important bills. They may be leaving the country and not have time to wait for a better price. Alternatively, a car dealership may need to clear excess supply and make room in the showroom for new stock. In this situation, the low price is an opportunity. However, if there is something wrong with the car, the owner may have priced the car cheaply in the hope that a buyer will purchase the car without realising exactly what is wrong with it. The buyer may think that the car has a minor defect but will not appreciate the extent of the problem. In this situation, the opportunity becomes a lemon.

Buyers can reduce the risk of buying a lemon by researching the car they intend to purchase before completing the transaction. Researching a product will increase the buyer's knowledge of the market but is a time-consuming activity. In the car market, buyers can pay for online background checks to see if the car has been in major accidents or has outstanding debts on it. Buyers can also pay mechanics to check over the car for faults. These actions reduce the risks of buying a lemon but add costs for the buyer. Ultimately, if the buyer can increase their knowledge of products in the market, the problem of asymmetric knowledge declines. This makes them less likely to buy a lemon and increases their chances of spotting an opportunity at a bargain price.

## Application of economics in the real world 2.3: Beyond *Homo economicus*

- 1 In traditional economic theory, 'economic man' is rational and makes decisions in a self-interested manner. Economic man calculates the utility or happiness of each course of action and then pursues the option that maximises his utility.
- 2 Altruism is when an individual is concerned for the welfare of others.
- 3 Traditional economic theory is rooted in the notion that individuals are self-interested. In this approach, it is rational for individuals to give money to charity or donate blood for two reasons. First, they will get utility and personal satisfaction from the act of helping others. Second, they may receive enhanced social status by being seen to do 'the right thing'.

Recent insights from psychology, however, suggest that most human beings will give money to charity or donate blood because they want to help less fortunate members of society. The majority of individuals in society are naturally concerned about the welfare of others and are willing to help people who they believe are in need.

- 4 The mortgage market in the UK is complex in three main ways. First, there are wide varieties of buyers in the market, such as first-time buyers, those buying-to-let and those with equity-release mortgages. As a result, there are a large number of products on the market, each tailored to the needs of different customers. This means that customers need to take care when selecting a product, otherwise they may make a poor choice and select a product that is not suited to their needs. This is difficult because financial institutions use technical language and complex terms that are hard for customers unfamiliar with the market to understand.

Second, different mortgages contain different risks. A tracker mortgage is variable and the rate of interest that a homeowner has to pay each month will move down and up with the Bank of England's Bank Rate. If a buyer does not understand how the Monetary Policy Committee sets interest rates to target the inflation rate, they will not appreciate the risks they are taking when buying the product. In contrast, a fixed-rate mortgage is a safer option, but in a period of ultra-low interest rates, buyers may select a 'safe' product that locks them into making higher debt repayments.

Third, mortgages require buyers to make decisions about unpredictable future events in their lives. For example, a worker may commit to buying a house with a five-year fixed-term mortgage, where the interest rate is set for five years, until the deal comes to an end. The house will be near their place of work and, in the short term, the decision appears rational. However, if the economy goes into a downturn and the firm relocates its offices, the worker is locked into a mortgage and property ownership.

## Application of economics in the real world 2.4: Applying behavioural insights to charitable giving

- 1 A group norm is a social norm. This is when a pattern of behaviour, in this case a donation to charity, is considered the acceptable normal behaviour of members of the group.

An anchor is a cognitive bias that human beings have when making a decision. In the case of a charitable donation, humans may look to the example set by others when deciding the amount they should give. If, for example, the first person donates £100, subsequent donors will use this figure as an anchor.

- 2 One example is setting defaults that automatically enrol new senior staff into a charitable giving scheme. This is an opt-out scheme as opposed to an opt-in scheme.

A second example is attracting individuals' attention by using personalised messages. The Department for Education has run schemes designed to promote university applications from students from disadvantaged backgrounds, where text messages have been sent to applicants encouraging them to complete UCAS forms before the deadline.

- 3 December is a month when many households in the UK celebrate the Christmas holidays with present giving and festivities. Individuals are often very generous and are more likely to make a charitable donation as either a present or a goodwill gesture. January, in contrast, is when many households have to pay the bills from the Christmas period. It is also the tax deadline for self-employed workers.
- 4 Individuals are free to make their own decisions, but human beings are social animals by nature, which makes many of them prone to looking at the social norms of the group when making decisions. Research from the fields of psychology and behavioural economics suggests that individuals are more likely to make a charitable donation if they believe other members of society look upon it favourably. Therefore, positive social norms will affect the willingness of most members of society. However, social norms do not affect the decision making of all individuals. A minority of people will be unaffected by the social norm, or may even deliberately behave in the opposite manner from the norm and reduce or cease all charitable giving.

## End-of-chapter questions

- 1 Marginal utility means the additional satisfaction that the consumer gets from consuming each unit of commodity. The law or hypothesis of diminishing marginal utility states that, as a consumer increases the consumption of a good while keeping the consumption of other goods constant, the marginal utility or extra satisfaction derived from it decreases.

- 2 At the heart of traditional economic theory is the assumption of maximising behaviour. Every economic agent (individuals acting as consumers, workers and owners of businesses) aims to maximise an objective (utility in the case of consumers and workers, and profit in the case of business owners). To achieve these objectives, individuals have to make choices. For example, consumers respond to the relative prices they face and to the set of preferences they possess for different goods and services when they make decisions about which goods and services to buy, in pursuit of the objective of utility maximisation.
- 3 Rational individuals always try to make decisions which are in their own self-interest. In the real world, however, they may possess imperfect information. A football fan may decide to spend £70 on buying a ticket to attend a match in which her team is playing a local rival. She is giving up the opportunity to watch a cricket match on TV on the same day. In advance, it seems to be a rational decision as she prefers football to cricket. In the outcome, however, both teams play very badly and the match is a goalless draw. After the game she realises that she made the wrong decision.
- 4 Writing in the 13 June 2015 edition of *Psychology Today*, under the heading ‘Satisficing vs maximising’, Shahram Heshmat states:

*A key assumption in economics is the notion that individuals are mostly rational, and armed with complete information about their choices. Rational individuals will always choose the option that maximizes their satisfaction. In order to accomplish this, they are willing to engage in an exhaustive search of all possible options, investing substantial time and effort in the process.*

*However, it is almost impossible to examine each and every available option. The goal of utility maximization is nearly impossible to achieve in real life. Herbert Simon proposed that decision makers should be viewed as bounded rational, with utility maximization being replaced by satisficing. Settling for a good enough option, but not necessarily the very best outcome, saves time, and time saving justifies the decision to satisfice rather than to maximise.*

- 5 The short answer is ‘no’; it can be perfectly rational to give money to charity. This is because the donors gain more utility from appreciating the help given to other people than the utility they would gain from spending the money on their own consumption.  
The longer answer is that people give to charity for a variety of reasons. Most people give to causes that affirm important values, including compassion for those in need. Donors are also more likely to give when they think that their donation will make a difference. For many, the most important reason for giving is an altruistic concern for others.
- 6 People tend to respond differently to information, depending on how it is framed. For example, they respond to risk more positively if a question is framed to achieve a positive result, compared with avoiding a negative result, even if the probability of the actual outcome is the same (e.g. people are more likely to agree to an operation that is presented as having a 90% chance of success than to the same operation that is presented as having a 10% chance of failure).

The example we give in the book relates to the UK chancellor saying in 2014 that the government had more than halved the UK’s budget deficit since taking office in May 2010. Osborne was trying to frame his government in the voters’ minds as one of economic competence.

As a second example, politicians and civil servants were more likely to choose a risky policy option when it was presented in terms of how many deaths it might prevent, rather than how many lives it might save.

- 7 In theory, a well-functioning market should maximise value for consumers. This is because firms that do not deliver value for money will not be able to attract customers and survive in the market.

However, there are reasons why markets may not work perfectly, or may not achieve the desired outcome from society's point of view. Where this is the case, it may sometimes be beneficial for governments to intervene in the market to help individuals make better choices.

In some cases, even when a consumer has made a purchase, it may be difficult for them to assess the quality of the product, or whether the service they are receiving matches their needs. This is more likely where understanding how a product or service works requires particular expertise: for example, medical procedures or car repairs.

Even if they do have access to information, consumers may find it difficult to use the information to make decisions or, for various reasons, they may make decisions that are not in their best long-term interests. This could be the case for long-term financial products, such as pension schemes, where it may be difficult for individual consumers to assess the costs and benefits of different products.

If consumers do not have sufficient information, or find it difficult to make informed decisions, firms face less competitive pressure, and the market is less likely to deliver value for consumers. In some cases, the detriment may be more serious: for example, if consumers are unaware of inadequate water quality, or the safety of the food products they are consuming.

In all these cases, government intervention through regulation and the provision of information can help individuals make better choices.

## Test yourself answers

### TEST YOURSELF 2.1

The correct answer is statement D. Some people display the behavioural characteristic of gaining pleasure (utility) as a result of being seen by people similar to themselves as being an early buyer of a good — such as buying a ticket for a rock concert as soon as tickets for the event are released onto the market.

### TEST YOURSELF 2.2

**Pleasure items:** chocolate; daffodil bulbs.

**Fulfilment of need:** medicine; electric light bulbs; washing-up liquid.

### TEST YOURSELF 2.3

According to an article in Economics Online accessible at [https://www.economicsonline.co.uk/Behavioural\\_economics/Introduction-to-behavioural-economics.html](https://www.economicsonline.co.uk/Behavioural_economics/Introduction-to-behavioural-economics.html):

*All economic behaviour involves decision-making by individuals, and traditional theories of economic behaviour assume that economic agents apply rational thought to each and every decision to achieve the maximisation of personal benefit (utility) or, in the case of producers, the maximisation of profits. Individual economic agents are driven by self-interest, and if all agents are driven by self-interest based on all the information they have, each marginal decision will be rational.*

### TEST YOURSELF 2.4

Taking the example of used cars: a second-hand car-dealing firm has the finances to subject a car to more stringent tests than a potential buyer of the car can afford. The seller may decide to

suppress some of this information, such as minor repair jobs. Unless the potential buyer commissions his own survey, the seller possesses more accurate information than the buyer.

## TEST YOURSELF 2.5

Statement A is true because price comparison websites are inaccessible without access to the internet. All the other statements are untrue. Very often, consumers go into stores to get the ‘touch and feel’ of a good, such as a pair of shoes. They might compare prices in a limited range of stores and on the internet before buying either. The weasel word in statement C is ‘always’. If this is changed to ‘sometimes,’ the statement becomes true. Similarly, ‘eliminates’ is the weasel word in statement D. Consumers still have to make choices even if they possess more information.

## TEST YOURSELF 2.6

Rules of thumb simplify decisions, especially under conditions of uncertainty. They represent a process of substituting difficult questions with easier ones. Using the rules of thumb can make decision making better, but not perfect. Behavioural economist Herbert Simon argued that, when faced with complex decisions, an individual may resort to decision-making devices that simplify the process of coming to a reasonable decision, when the ‘perfect’ decision is unreachable or too time consuming. For example, shoppers may choose to buy limited-offer discounted goods, believing they are actually cheaper than the average price of the same good over a period of time, when actually they are often not. Similarly, we commonly assume that ‘best before’ labelling of products actually means that the good should not be consumed after that date (which is rarely true). Using such rules helps simplify day-to-day economic decision making, and without rules of thumb, consumers would need to allocate far more time to routine decision making than is justified.

## TEST YOURSELF 2.7

Social norms are forms or patterns of behaviour considered acceptable by society. If the social norm is established and widely accepted that a clean environment is beneficial for society as a whole, even though an individual litterer may achieve short-term time benefit from not having to look for a waste bin, social disapproval of the practice may lead to less litter being dropped.

## TEST YOURSELF 2.8

Statement B provides the answer. Norms are behaviours, thoughts or values that a majority of people share within the same society. They differ from laws or legal restrictions in the sense that they are not compulsory. They rather define a direction or guidelines that have the social function of making a society work better. All the other statements contain the words ‘laws’ or ‘formal rules’, which means that they don’t provide the correct definition of a norm.

## TEST YOURSELF 2.9

Choice architecture describes how the decisions people make are affected by the layout and the sequencing of the range of choices that are available. Well-designed choice architectures can compensate for irrational decision-making biases to improve consumer welfare. A research team tried to nudge the staff at Massachusetts General Hospital to avoid less healthy choices in the hospital cafeteria. They used a three-light system, labelling items with red, yellow and green. For example, unhealthy options, such as pizza and soft drinks, are labelled with the red light, and salads or vegetables with green lights.

In addition, they positioned healthier options at eye level, and red-light choices on lower shelves, as well as using other clever positioning tactics to increase effectiveness. The numbers tell the

tale. For drinks, green item sales increased from 41% to 46%, and red items were down from 24% to 21%.

## TEST YOURSELF 2.10

To answer this question you should read House of Commons Transport Committee, *Traffic Law and its Enforcement: Sixteenth Report of Session 2003–04*, which can be accessed at: <https://publications.parliament.uk/pa/cm200304/cmselect/cmtran/105/105.pdf> and ‘The characteristics of speeders’ prepared for the Road Safety Division, Department of the Environment, Transport and the Regions, by D. C. Webster and P. A. Wells, which can be accessed at <https://trl.co.uk/uploads/trl/documents/TRL440.pdf>.