

IGCSE **ECONOMICS**

Brian Ellis



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Brian Ellis has taught economics in schools, universities and less conventional venues. His involvement in curriculum development has included joint authorship of a previous International GCSE course. His examining experience includes periods as chief examiner and as chair of examiners for a major exam board. He contributes regularly to Economics Today and has been involved with enough publications that he should know what he is doing by now. As a trainer, he has had the privilege of working with teachers in many of the countries where International GCSE is taught. He sees it as important for people to think and to smile sometimes.

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The author's draft of a book such as this is far messier than the finished product. Skill and care from George Wishart has turned my ideas into attractive artwork and produced effective charts and diagrams. His page layouts add a polish and clarity which enhance their appearance. The mistakes, of course, are mine rather than anyone else's. I'm a human.

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Introduction

This book is based on the content of the 2017 Edexcel International GCSE course and follows the same sequence. Each chapter ends with a 20 mark composite question, using the structure of the new exams – which will have four 20 mark questions each. There is also an exam tip at the end of each chapter. Anforme are publishing a companion answer book electronically. Besides suggested answers to the questions, this also has more guidance on tackling the exams.

The course has a major emphasis on the use of real contexts, which is reflected here. As the course and exams are taken in many countries, teachers could also valuably apply ideas to the situation in their students' home country and make comparisons with the contexts in the book. Teachers willing to refer to developments after this book is published will also be helping their students.

The 'Try this' panels dotted through the book are often attempts to turn abstract ideas into something which touches the lives of students. They are also an attempt to get students thinking. This is generally a good thing and is particularly important for this course. Students will have to think their way through applying economic ideas and approaches to the contexts used in exams.

The economic problem

Top prices for rare artworks

Paintings by famous artists are only rarely available for sale. Many people enjoy paintings and might like to own a masterpiece. If they are sold, museums and collectors compete to buy them and drive the prices very high. Two paintings sold in 2015 reached a price level of \$300 million. One was by Paul Gauguin and the other by Willem de Kooning. Before 2015, the top price was \$259 million, paid for a Paul Cezanne painting in 2011. By the time you read this, there might be a new record price for another painting. Economics is a dynamic subject; things evolve and change over time.

Scarcity stems from limited available resources not being enough to satisfy the needs and wants that people have. This makes choices necessary.

Opportunity cost is our name for best alternative which becomes impossible when a choice is made by consumers, businesses and governments.

Scarcity, choice and opportunity cost

There are times when we just can't do everything that we want to. There are also times when we can't afford everything we might like to buy. We have to make choices. One obvious choice for students is how much time to spend studying, how much to share in social activities with friends and how much to help with chores at home. Such decisions face people all around the world and there are big variations in the choices they make. Even the very richest people have only 24 hours per day. The spending choices of the very richest can be on a different scale from those made by most people, with more emphasis on wants and less on needs, but they are still choices.

The reason why choices are necessary is that resources are scarce. This makes it impossible to do or to have everything. There is only a finite quantity of food and clean water available, for example, just as there is a finite quantity of diamonds. There is more about resources and production in Chapter 7. Resource **scarcity** and the ways in which choices are made are right at the heart of economics. We study decisions about what use is made of resources and how products are shared. One important part of this subject is building up a really accurate understanding of the specialist terms or 'jargon'.

When we make one choice which uses resources, we give up alternatives. If someone travels to a nearby town and has cash to pay the bus fare home, spending that cash on anything else might mean having to walk home. If the bus ride is the best alternative lost when the cash is spent, we call this the **opportunity cost**. Similarly, if someone wants both a new smartphone and a new bicycle but has enough money for only one of these, the opportunity cost will be whichever item is not chosen. Just like consumers, firms face opportunity cost when choosing what to make and which production methods to use. Governments also have to choose between different spending priorities from the funding available. So, for example, they might face a choice between new school buildings, new weapons for the army or new health facilities.



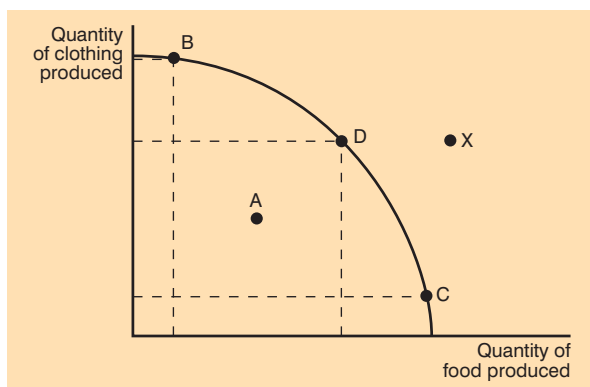
The production possibility curve

Production possibility curves (PPC) are convex lines showing the possible combinations of two products from using all available resources.

Unemployment is the situation in which potentially productive resources, such as labour, are left idle and so don't contribute to output.

One illustration of scarcity, choice and opportunity cost depends on the simplifying assumption that there are only two alternative products, say food and clothing. If all of the available resources are used producing food, the opportunity cost will be that no clothing is made. The production possibility curve shows all the combinations of food and clothing that can be produced.

Figure 1.1: Production possibility curve (PPC)



Points B, C and D on Figure 1.1 show three output combinations that are just possible. Mainly clothing is produced at B, mainly food at C and roughly even quantities are shown at D. If the country is relatively good at producing food, it might make sense to choose point C and then trade some food for clothing made elsewhere. However, some resources will be more suited to one product than the other. Fertile land is suitable for growing food, some land is less productive.

Some workers might have skills which make them better suited to working on clothing. They are less good at food production. If we moved from C above to producing only food, the tiny addition to food output shown above would have a large opportunity cost of lost clothing. For that reason, we normally draw PPC curves with a convex shape as shown. Some books use production possibility frontier (PPF) or 'boundary' rather than PPC.

Try this

Study Figure 1.1 to identify the exact output changes in moving from point C to maximum food.

Why would the opportunity costs be different for a small change starting from point D?

Point A on the diagram is also possible (or 'attainable') because we have more than enough resources to reach it. At outputs below capacity, such as at A, not all resources are used. Some will be idle or 'unemployed'. As we have scarcity and choice, unemployment represents a waste. It means that more wants than necessary will **not** be met, so living standards are below their potential maximum. Despite this, most economies have some unemployment and some have far more than is comfortable. There is more on unemployment in Chapter 11 and later chapters.

Try this

Think about someone who is passionate about their sport, dance or music making, and spends a lot of time training or practicing. Work out how many hours in total they might have available to combine their sport or dance with musical activity.

Turn this information into a PPC curve.

How could you show the opportunity cost of dedication to one activity?

Why is it difficult to be passionately involved in sport AND music AND dance?



Economic growth means a change in the output of an economy.

Economic growth

Economic growth means a change in the output of an economy. Positive growth is most likely to result from more resources being used or from improving the efficiency of production techniques.

Capital goods are items which can be used to produce other goods. Examples include machines in factories and infrastructure such as roads or phone networks.

To an economist, **investment** means creating new productive resources such as capital goods. Be careful not to confuse this with saving (e.g. putting money in a bank); in everyday use people sometimes confuse these terms.

Both the output and the capacity of an economy can change over time. Many economies in Asia and Africa now typically increase their output by around 5% per year. One result of this has been a reduction in poverty. Developed Western economies are more likely to grow by around 2% annually.

Point X on Figure 1.1 is currently unobtainable. It represents a combination of food and clothing beyond the capacity of the economy (as shown by the PPC curve). If there is **economic growth**, point X might become possible in future. Growth can come from adding extra resources, improving the efficiency with which resources are used or a mixture of these two things. For example, one contributor to China's rapid economic growth after 1990 was a high rate of **investment in capital goods**, increasing the amount of machinery and infrastructure available. Greater specialisation and trade can also stimulate growth, this has also been important to China.

One of the contributors to growth is improvement to the quality of the labour force. High quality education and training equips people with more abilities and skills, helping them to become more productive. This is sometimes referred to as '**investment in human capital**'. Your GCSE courses count as one form of investment in human capital.

Another contributor to growth is improvements in technology. Advances in robotics and automation allow workers to produce far more. As a simple example, some restaurants use handheld devices to allow waiters and waitresses to instantly send orders to the kitchen electronically, saving time previously spent carrying handwritten orders from person to person.



Try this

Identify other ways that new technology has helped people to produce more.

If the economy in Figure 1.2 increased capital goods output, as shown by shifting from the CE combination to BD, this would mean producing less consumer goods now. In the future, though, the extra capital goods could contribute to economic growth and shift the PPC curve outwards so that more can be produced, as shown in Figure 1.3.

Positive growth will shift the PPC outwards, showing that more can be produced. Negative growth is also possible. The Grand Banks sea area off Eastern Canada was one of the world's best fisheries and attracted fishing boats from afar. However, overfishing depleted fish stocks and the fishery has been closed for more than 20 years. A PPC which included the fishing industry would have shifted downwards to show lower capacity. Sadly, wars and strife commonly cause damage to resources (including people) and so result in negative growth and a lower PPC curve.

Figure 1.2: Capital and consumer goods

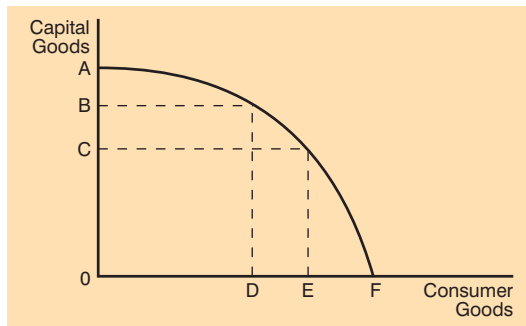
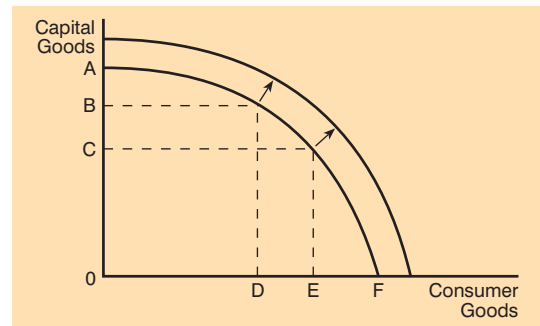


Figure 1.3: Economic growth



Sample questions

- Which of these best describes opportunity cost?
 - The price of training for a new career.
 - A bargain price for a desirable product.
 - The value of the best alternative given up when we make a choice.
 - The value of all the alternatives given up when we make a choice.

(1 mark)
- Define scarcity. (1 mark)
- Draw a production possibility curve for a community which can produce pottery and/or furniture. (3 marks)
- Explain the shape of a typical production possibility curve (3 marks)
- Explain how education can be seen as an investment. (3 marks)
- Full-time students are not counted as unemployed. Explain this. (3 marks)
- Many Asian economies have grown relatively quickly in recent times. For example, China grew at around 10% p.a. for 30 years and India has also had rapid economic growth. Analyse the impact of economic growth on living standards. (6 marks)

Exam tip

Your two economics exam papers will have 80 marks each and you will have 90 minutes for each. This means slightly over 1 minute to earn each mark, or one minute if you allow a little reading time. Working at exam pace would mean completing the questions above in just over 20 minutes.

Economic assumptions

Assume a can opener

A chemist, a physicist and an economist are stranded on an otherwise deserted island with just one large can of food. The chemist and the physicist try to work out clever ways of using their subject knowledge to find a way to open the can. The economist says “Assume we have a can opener.”

This story is an old joke against economists. The basic idea is that economists make assumptions which are so unreal that their ideas have no practical use. It is healthy to keep this in mind. Sometimes our simplifying assumptions help to make things clearer. For example, drawing a PPC with just two products works to illustrate the idea of opportunity cost. We could devise a three dimensional model, but it would have no more value. It doesn't matter that there is sometimes a multitude of choices; the basic concept stays the same.

Consumers are people who use income or wealth to buy and use goods and services. This means all of us. Consumption is a name for buying and using goods and services.

Benefit is a general term for the value which consumers gain from using products and services. There are books which use 'satisfaction' or 'utility' as alternative names for the same thing.

Our simplifying assumptions are often about how humans behave as **consumers** or as producers (making things). People are complicated. Sometimes they change their behaviour according to the time, the place or their mood. Different people will have different priorities and make different decisions. Most economics relies on simplifying assumptions about behaviour to let us predict what people will do. This leads to tidy and logical theories, but these theories can fail to show what really happens. An important development is that 'behavioural' economists now start from studying the way real decisions are made, rather than from unrealistic assumptions.

Behavioural economists suggest that some theorists have 'theory induced blindness' – putting time and energy into theories can make them forget how unrealistic their ideas are because of false assumptions. You should make your own judgements on when theory strays too far from reality.

Consumers maximising benefits

Every household faces choices, as the time and money available to them are both limited. As resources are scarce, our starting assumption is that consumers seek to get as much **benefit** as they can. At the simplest level, a choice between two options will depend on which offers greater benefit. People will try to get as much benefit as possible from their limited incomes.

We don't always buy luxury products, because standard quality products tend to be cheaper. What matters is benefit compared to price. A chauffeur driven hire car is a luxury way to get around, but it costs more so it involves giving up more other items than cheaper transport. The more limited our incomes, the more likely it is that we will walk whenever possible. Wherever we save by finding a cheaper option, making the cheaper choice leaves more income for other things.

The more we value something, the more we will give up alternatives for it. With higher incomes, people can make more luxury choices without giving up anything important to them. However, there are limits. Virgin Galactic aims to provide commercial space flights (at some future date). There are hundreds of people who



have paid \$200,000 for one of these flights. Most of us would see the opportunity cost of such flights as too great, even if we could borrow the fare.

Benefits from consumption often take an obvious form, such as preventing hunger by consuming food. Some purchases help us to feel good about ourselves. I have a suspicion that some people buy iPhones when far cheaper smartphones could provide the services they use for a fraction of the price. Perhaps they get a benefit from feeling that their phone is 'special'. Perhaps some are trying to impress people around them, using their phone to somehow indicate status. The benefits from consumption can be more complex than the simple gain from using items.

Try this

Can you identify other items that some people buy for status rather than just to use?

Reasons why consumers may not maximise benefit

Many people act in ways which are close to our starting assumptions sometimes. As a piece of shorthand, I'll call people who stick rigidly to the assumptions '**Economen**'. Two points need making here. If you use economen you should explain it, as this is not a term used widely elsewhere. Secondly, I use 'men' to refer to mankind, not just males. Economen are different from humans.

Psychologists say that a 'limbic system' in human brains controls emotions and leads to actions caused by feelings. The 'neo cortex' is another part of the brain involved with thinking and logic. It seems that Economen have a neo cortex but only humans also have a limbic system. Behavioural economists have identified ways in which humans differ from economen. Your course expects you to understand three of these ways.

Consumers are not always good at calculating their benefits. Some people are not good at sums or at understanding what things cost. Some game developers offer 'free' games for smartphones and games consoles, then sell chargeable extras which can add up to quite a surprising expense. There is an assumption that consumers have all the relevant information when they spend, which is often unrealistic as it can be hard to know the quality of an item or what alternative options exist.

Some supermarkets and other shops advertise 'special offers' which are really not good value, but some consumers are too trusting or too lazy to work that out. We can spend our incomes unwisely sometimes because of not working things out.

Consumers have habits which are hard to give up. Sometimes we make the effort to think a choice through before deciding. Often, though, our habits give us 'rules of thumb' which are 'good enough' for quick decisions with no thought. Formally, the rules of thumb are 'heuristics' but habits captures the idea too. You can probably identify habitual behaviour that is typical of members of your class.

Sometimes habits are good. If you step into a busy road before crossing, but hear a noisy engine approaching fast, stepping back quickly is a good response. When riding a bike or driving a car, most of us rely on sub-conscious reactions to get us where we are going. Habit can create problems. UK consumers can buy electricity and gas from many suppliers. Millions of people stick with the supplier they've habitually used, even though others offer an identical product at lower prices.

Consumers sometimes copy others' behaviour. In countries with shortages of foodstuffs and other goods, there are often queues. When they see such queues, some people get on the end without knowing what they are queueing for. In groups of friends, 'peer pressure' makes people copy what others are doing, to show that they belong to the group. Smoking is one of the silliest examples of this. In families, young people often copy many of their parents' decisions and choices, though some students seem more inclined to do the opposite just to show their independence.

Summary table: Three reasons consumers may not maximise benefits

Poor calculation	Low mathematical ability, lack of confidence and laziness can all result in consumers not making the best choices.
Habit	We all form habits. When we stick with our habits despite better choices becoming available, or our habits are silly, they lead to bad choices.
Peer pressure	People who want to belong with a group of friends, or don't want to seem different, may copy the choices of others rather than do what is best for them.

Try this

Talk with one or more people involved in spending for your household's needs.

Ask if they can recall purchases which they regret having made.

Discuss whether they ever spend without thinking about prices and value, whether they have habits of automatically buying some items and whether peer pressure affects them.

Decide whether you've been talking with 'economists' or humans.

Work choices

In order to consume, we pay for what we buy. Most households have one or more people with a paid job or a business. This provides an income which finances consumption. We maximise our benefit by enjoying as many goods and services as we can. The more we earn, the more we are able to spend. This makes it logical to assume that people will take the best paid job that they can get.

Few people would choose to be poor. However, most of us choose a job or career considering other factors besides income. Many performers love having an audience. Creative people get pleasure from turning their ideas into reality. There are people who get great satisfaction from being able to help others. There are people who want to work inside or outside, fixed or flexible hours, physically or mentally and hard or with minimum effort. Some people do prioritise income, but for most of us there is a balance to be struck between income and other considerations.

Good economists are lucky; they can earn high incomes. Many economics teachers have decided that income is not a dominant factor in their choice of work. Like millions of workers, they have decided not to maximise their incomes by taking the highest paying job they could find.

Try this

Ask someone you know, who has a job, what they like about their work.

Ask them if they would switch to a less pleasant job if it paid them a little more. Is this person an income maximiser?

Businesses maximising profit

A **sole-trader** is the only owner of a firm. She or he is entitled to make all business decisions and to have all of any profit made. Sole traders don't all work alone; many employ other people as well.

Multinational corporations (MNCs) have a headquarters in one country and also have production or selling operations in at least one other country. MNCs are also referred to as transnational corporations (TNCs). Some of them, such as Coca-Cola and Microsoft, operate in most countries.

A firm's **profit** is the revenue (income) it earns, minus the costs it pays. It is important to remember that revenue and profits are *not* the same thing. Revenue will normally be greater than profit.



Students should be aware that the notion of a job for life looks increasingly old fashioned.

Businesses (or ‘firms’) vary from **sole-traders** who might work alone, and might only work part-time, to **multinational corporations** with many thousands of employees around the world. Many employees have full-time jobs and might have worked for the same employer for many years. Students should be aware that the notion of a job for life looks increasingly old fashioned.

However work and businesses are organised, we start from the assumption that firms aim to maximise **profit**. In other words, the point of a business, from the owners’ perspective, is to make as much profit as it can. This will generate the maximum possible income for the owners and so allow them to consume and gain as much benefit as possible.

Reasons why producers may not profit maximise

Just as consumers like income but also consider other things, firms might consider other objectives besides profit. Sometimes owners employ professional managers who might be paid according to the size of the firm. Their earnings would go up if the firm grew, so they might choose growth rather than profits. The owner might have different aims from the manager who makes decisions.

Few people are entirely selfish. Some owners see their firms as part of their community and feel that they should care for customers. They might accept a lower profit in order to ‘look after’ their customers. Firms are sometimes set up where there are limited job opportunities, with the purpose of providing work and incomes for local people. Some firms believe passionately that their product is good for customers and so prioritise selling more to benefit as many people as possible.

Charities sometimes set up businesses in order to help their cause. Producing and increasing the use of mosquito nets is an example in some areas. They have to cover costs from somewhere and might charge for their products, but profit maximisation is not their aim.

Many humans do things ‘well enough’, without going flat out to do the very best that’s possible. Some students will be familiar with this idea. In a business, some owners might leave things as they are if they can take an ‘adequate’ income from the business. Only if profits fall or their needs change will more profit become important.

Try this

Think about businesses in the area where you live. Can you identify some profit maximisers?

Are there examples near you of firms which seem to prioritise other objectives?

Schools and colleges often have non-profit objectives, what is yours trying to achieve?

Summary table: Three reasons why businesses may not profit maximise

Sales or revenue	Some firms prioritise sales or revenue rather than profit, either seeking long-term growth or because managers make choices to suit their own interests.
Caring objectives	Unselfish people might want to serve their community or to provide jobs, even to care for their family and so spend less time working.
Charities	Some businesses are set up for charitable purposes rather than profit. For example, some cities have food banks or soup kitchens to help people in need.

Sample questions

- (a) 'Habits' refers to
- Repeating behaviour that we've learned, without necessarily thinking about it.
 - Poorly constructed homes which might be temporary.
 - Anti-social activities such as smoking or shouting.
 - Small animals, a cross between hamsters and rabbits. *(1 mark)*
- (b) What is meant by 'benefit' in economics? *(2 marks)*
- (c) What is meant by 'peer pressure'? *(2 marks)*
- (d) Explain why some businesses seek to maximise profits. *(3 marks)*
- (e) Cateura is an area in Paraguay with extreme poverty and a giant rubbish dump. Children there have been helped to make musical instruments from the rubbish and to form an orchestra. The Recycled Orchestra is very good, touring internationally and playing with famous groups. The lives of the players have been transformed. Orchestra income has been used to help the wider community. With reference to this data, analyse likely objectives of the Recycled Orchestra's organisers. *(6 marks)*
- (f) Physical scientists test ideas with controlled laboratory experiments, keeping everything fixed except for one variable which they are studying. Analyse why economists tend to rely on assumptions rather than to conduct controlled experiments. *(6 marks)*

Exam tip

A two mark 'what is meant by' question will want you to identify two important features to earn both marks.