Cambridge University Press 978-1-107-61231-0 - Cambridge IGCSE®Economics: Workbook Susan Grant Excerpt <u>More information</u>

# Basic Economic Problem

# Definitions

Section

This exercise is based on some of the key terms used in economics. Match the following terms with their appropriate definitions. For instance, if you think an 'inability of workers to change jobs and location' defines 'scarcity', match 1 with c. Each term has an appropriate definition. If you find that you are left with a term and a definition which does not appear to match, you should review your other matches.

- 1. Scarcity
- 2. The economic problem
- 3. Wants
- 4. Land
- 5. Capital
- 6. Labour immobility
- 7. Factors of production
- 8. Opportunity cost
- 9. Economic goods

- a. Natural resources
- **b.** Economic resources
- c. Inability of workers to change jobs and location
- d. Inability to produce everything that people want
- e. Products that have an opportunity cost
- f. Products that do not have an opportunity cost
- g. Products people desire to have
- h. Human made resources
- i. An insufficient quantity to satisfy everyone's wants

10. Free goods

j. Best alternative forgone

### Missing words

One way to become familiar with key economic words and terms is to use them. This exercise is designed to test your understanding of some economic words and terms in context. So complete the following sentences by filling in the missing word or words:

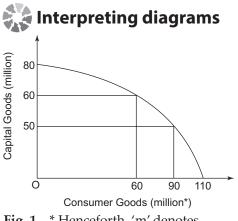
- 1. It is not possible to eliminate \_\_\_\_\_\_ as \_\_\_\_\_ grow faster than economic resources.
- 2. The economic problem means that people have to make \_\_\_\_\_\_
- 3. Most land is \_\_\_\_\_\_ mobile but geographically \_\_\_\_\_\_.

- 4. If gross investment exceeds depreciation there is \_\_\_\_\_\_ investment.
- 5. \_\_\_\_\_\_ is the payment labour receives whilst \_\_\_\_\_\_ is the payment entrepreneurs receive.
- 6. A country's labour force can be increased by \_\_\_\_\_\_ the retirement age and \_\_\_\_\_\_ the school leaving age.
- 7. \_\_\_\_\_\_ is output whereas \_\_\_\_\_\_ is output per worker hour.
- 8. A key role of entrepreneurs is to bear \_\_\_\_\_\_ risks.
- 9. Another name for a production possibility curve is an \_\_\_\_\_ cost curve.

## Calculations

Good economists can write clearly, interpret data and can undertake numerical calculations. At IGSCE/O level the calculations involve additions, subtractions, multiplications and working out averages and percentage changes.

- 1. A firm employs twenty six workers, paying each one US \$ 75 a week. What is the firm's total wage cost?
- 2. A country produces US \$ 900m capital goods in a year. There is depreciation of US \$ 620m. What is net investment?



Economists make widespread use of diagrams. A diagram can be used to illustrate economic concepts, to analyse changes in economic conditions and to assess the effects of economic policies. Indeed a diagram can be worth a hundred words!

Production possibility curves can be used to show a number of economic concepts including opportunity cost.

**Fig. 1** \* Henceforth, 'm' denotes 'millions'.

- Using Figure 1 state:
- **a.** The opportunity cost of increasing the output of consumer goods from 60m to 90m consumer goods.
- b. The opportunity cost of producing 80m capital goods.

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It is important that you gain experience in drawing diagrams. Each diagram you draw should be clear and well labelled. You must have appropriate words on both the vertical and horizontal axes of a diagram. It is probably best to draw diagrams in pencil so that if you make a mistake, you can rub it out and start again.

Draw a production possibility curve showing the effect of an increase in the quantity of resources.

## Multiple-choice questions

Before answering a set of multiple-choice questions, check over your work on the topics covered. This preparation will build up both your understanding and confidence.

It is important to consider multiple-choice questions calmly and logically. First read the question. You may want to highlight key words. In some cases you may be able to think through an answer before you look at the options. For instance, in the case of question 2, you should consider what you understand by 'human capital'. Having decided on this, you should then look at the four options and select the one that comes closest to your understanding. This approach can also be applied in the case of questions 7 to 10.

The other questions in this section are examples of those which you have to, right from the start, consider along with the options. For example, question 3 is in effect, an integrated question. You cannot provide an answer independently of the options.

In the case of both types of questions, you need to consider the options carefully. With some questions an option may stand out as correct. With other questions, you may have to arrive at the answer by eliminating the incorrect options.

Trust your judgements. Once you have selected an answer, move on. If you are finding a question particularly difficult, leave it and then return to it at the end. Never leave a question unanswered. If you have no idea of the answer, still attempt the question. You have a 25% chance of getting the answer correct and you are not penalised for incorrect answers.

When you have completed the multiple-choice questions in a section, check over the answers and the explanations. It is particularly important to review the answers to any questions you have got wrong or are unsure about.

- 1. What would cause an increase in the problem of scarcity?
- $\Box$  A reduction in resources
- **B** A reduction in wants
- C A rise in productivity
- D A rise in the mobility of resources

- 2. What is meant by investment in human capital?
- A Encouraging immigration of people of working age
- **B** Paying bonuses to workers to encourage them to increase their output
- C Spending money and time on educating and training workers
- D Upgrading the machines labour works with
- 3. Which item is a factor of production?
- A The food a farmer produces
- **B** The satisfaction a farmer gains from his work
- C The tractor a farmer drives
- D The wages a farmer pays his workers
- 4. Which form of air is an economic good?
- A Air at ground level
- **B** Air from an air conditioning system
- C Air above an ocean
- D Air in a tropical rainforest
- 5. Which item used in the production of textiles by a firm would an economist classify as land?
- □ A Sewing machines
- **B** The factory
- C Untrained workers
- D Water taken from a river
- 6. What might be the opportunity cost of using a bus to transport children to school?
- A Increasing the earnings of the bus company
- **B** Paying the wages to the driver
- C Paying for the cost of petrol used
- D Transporting a group of retired people on a day out
- 7. What is meant by 'labour' in economics?
- A Hard physical work used to produce manufactured goods
- **B** Human mental and physical effort used in producing goods and services
- C Natural resources used in the productive process
- D Risk taking and organising the factors of production
- 8. What does a production possibility curve show?
- □ A The maximum combination of two types of products that can be produced with given resources

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- **B** The prices of two types of products being produced
- C The quantity of capital and consumer goods that people would like to be produced
- D The relative profitability of capital and consumer goods
- 9. Which combination of economic concepts is illustrated by a production possibility curve?
- □ A Cost and price
- **B** Demand and price
- C Economic goods and free goods
- D Opportunity cost and scarcity
- 10. What does a point outside a production possibility curve represent?
- A A currently unattainable position
- **B** An inefficient position
- **C** The maximum use of resources
- D Unused resources



This is another exercise to help you build up your understanding of aspects of the topics covered in this first section.

Identify one way in which each of the following pairs is similar:

- 1. Builders and teachers.
- 2. The entrepreneur and labour.
- 3. Forests and streams.
- 4. Wind and sunlight.
- 5. Production possibility curves and production possibility frontiers.

## Differences

Identify **one** way in which each of the following pairs is different:

- 1. Capital goods and consumer goods
- 2. Economic goods and free goods
- 3. Capital and land
- 4. Geographical immobility and occupational immobility
- 5. Opportunity cost and financial cost



## Data exercise

In an economics examination your ability to interpret and analyse economic data will be tested.

The use of data puts economics in a real world context. In answering data-based questions, you should first read through the questions so that you know what you are looking for. Then read through the data. You may wish to highlight key words. Having read through the data, return to the questions. Again you may find it useful to highlight key words in the questions. For instance, in the case of question *b*, you may wish to highlight the words 'opportunity cost'. In deciding how much time to devote to each answer, take into account the marks awarded. You would obviously be expected to spend twice as long on a question with 8 marks than one with 4 marks.

#### A new Indian car



On 11 January 2008, Tata, an Indian producer, launched a new model, the *Nano*. On this day it became the cheapest car available, selling for half the price of the next cheapest car. For the price of 100,000 rupees, a brand new Nano could be bought or, for instance, a second hand 1993 Land Rover.

The car is intended initially for the home market. It is thought that millions could be sold in India. The firm

also plans to export the car to Latin America, South-east Asia and Africa. Although selling the car at such a low price will make car ownership more affordable

Although selling the car at such a low price will make car ownership more affordable for more people, there are still many millions of people who would like a car but do not have the income to buy one.

- a. Using examples, identify three factors of production used in making cars. [6]
- **b.** Give an example of opportunity cost from the passage.
- c. What evidence is there of the economic problem from the passage? [2]
- d. Tata produces a range of cars. Use a production possibility curve to illustrate the effect of Tata devoting more of its resources to producing *Nano* cars. [4]

## Structured questions

Structured questions are divided into a number of different parts. In selecting a structured question to answer in an examination, it is important to ensure that you can answer all the question parts. It is best to answer the question parts in order as they may build on each other. As with data exercise questions, take into account the number of marks awarded to each question part.

[2]

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1.	a.	Wha	t is the basic econom	ic problem?	[2]		
	b.	Expl	ain <b>three</b> causes of a	n increase in the supply of labour in a country.	[6]		
	c.	c. Discuss the relevance of opportunity cost in the following cases:					
		(i)	a worker deciding v	whether to accept a new job	[3]		
		(ii)	a family deciding w	here to go for holiday	[3]		
		(iii)	an entrepreneur sel	ecting which new product to launch	[3]		
		(iv)	the production of e	conomic goods.	[3]		
2.	Pakistan is a major producer of cotton garments, knitwear and rice. To increase its output of a range of products, the Pakistani government is seeking to improve the quality and mobility of its economic resources.						
	a.	Wha	t is an economic resc	ource?	[2]		
	b.	Expl	ain what is meant by	the mobility of economic resources.	[8]		
	c. Analyse three causes of an increase in the quality of economic resour						
	d.	d. Discuss a possible opportunity cost of Pakistan devoting more of its resources to producing cotton garments. [4]					

#### Homework assignment

Review the work in this section and then answer the following question:

#### A German travel company considers its future

A German travel company decides to stop selling holidays in Italy and instead to offer holidays in a new destination. This is the Maldives, a group of islands in the Indian Ocean, famous for their long hours of sunshine and sandy beaches.

Tourism is a fast growing industry. Not all families, however, are able to go on holiday whether at home or abroad. Most of those who take holidays would like to have more holiday breaks.

- **a.** What evidence is there in the passage of scarcity?
- **b.** Using examples, identify three factors of production involved in providing holidays in the Maldives. [6]
- c. (i) Explain the difference between an economic good and a free good. [4](ii) Identify a free good from the passage. [1]
- d. Explain the relevance of opportunity cost for a travel firm in deciding how to use its resources. [6]

[3]

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# Section 2

# The Allocation of Resources

# Definitions

In this section you have more terms to match with their definitions than you had in the first section. This may seem more challenging but the practice you gained in matching terms and definitions in Section 1 should help. Some of the definitions may be expressed in slightly different words to those you are familiar with. If you understand the terms, however, you should not have a problem.

- 1. A market economy
- 2. Extension in demand
- 3. Increase in demand
- 4. Supply
- 5. A contraction in supply
- 6. Market supply
- 7. Equilibrium price
- 8. A subsidy
- 9. A shortage
- 10. Price elasticity of demand
- 11. Elastic demand
- **12.** Productive efficiency
- 13. Market failure
- 14. External costs

- a. A measure of the sensitivity of demand for a product to a change in its price
- **b.** This is where the quantity demanded of a product is equal to the quantity supplied
- c. A situation where market forces do not result in an efficient outcome
- d. Products that are more harmful for consumers than they realise and which have external costs
- e. Products which are both non-rival and non-excludable
- f. The willingness and ability to sell a product
- g. The total benefits arising from producing or consuming a product
- h. Spending by central and local government
- i. Producing at the lowest possible cost
- j. A situation where demand exceeds supply
- k. A shift in the demand curve to the right
- 1. A movement along a demand curve as a result of a fall in the price of the product
- **m.** A movement along a supply curve as a result of a fall in the price of the product
- **n**. The total supply of a product

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15.	Social benefits	0.	A method of comparing the total benefits and costs of a project
16.	Demerit goods	p.	A payment to encourage the production or consumption of a product
17.	Public goods	q.	An economic system which relies on the price mechanism to allocate resources
18.	Government failure	r.	Harmful effects on third parties
19.	Public expenditure	s.	When a change in price causes a greater percentage change in quantity demanded
20.	Cost benefit analysis	t.	When government intervention increases inefficiency

## Missing words

This exercise includes twice as many sentences than in Section 1. Think carefully about the most appropriate word or words to complete the sentences.

1.	Any type of economic system has to answer key economic						
	questions. One of these is how the products that are made are						
2.	A mixed economy is one in which the allocation of is						
	determined by both the mechanism and						
	intervention.						
3.	One of the advantages of a market economy is sovereignty.						
4.	Economists define demand as the willingness and to buy a product.						
5.	A in the price of a product will cause a contraction in						
	demand.						
6.	Rival products are known as whilst products that are						
_	bought to be used together are known as						
7.	A rise in the price of a product with inelastic demand results in a in total revenue.						
8.	The more defined a market is, the more						
	there are, so the more elastic demand is.						
9. Price elasticity of supply is a measure of the responsiveness of							
	of a product to a change in its						
10.	A market is said to be in when demand is not equal to						
11	A market system can promote both efficiency and						

11. A market system can promote both \_\_\_\_\_\_ efficiency and productive efficiency by putting \_\_\_\_\_\_ pressure on firms.

- **12.** A decrease in demand for a product will cause a \_\_\_\_\_\_ in price and a \_\_\_\_\_\_ in supply.
- 14. A merit good has both higher \_\_\_\_\_\_ benefits than consumers realise and \_\_\_\_\_\_ effects on \_\_\_\_\_\_ parties.
- 15. Market forces will not encourage private sector firms to produce \_\_\_\_\_\_ goods as those wanting the products can act as \_\_\_\_\_\_ riders.
- 16. Social costs minus private costs equals \_\_\_\_\_ costs.
- 17. To encourage the consumption of a merit good, a government may provide a \_\_\_\_\_\_\_ to producers. In contrast, to discourage the consumption of a demerit good it may place a \_\_\_\_\_\_ on the product.
- 18. Information \_\_\_\_\_\_ can result in consumers paying \_\_\_\_\_\_ that are too high.
- **19.** If a government overestimates the extent of external costs, it will set a tax that is too \_\_\_\_\_\_\_.
- 20. Taxation is one way of financing \_\_\_\_\_\_ expenditure.

## Calculations

Academic economists and economists working for businesses and the government frequently calculate price elasticity of demand and price elasticity of supply figures. Their findings can, for instance, help firms to decide whether to alter their prices, whether they are responding fast enough to changes in market conditions and can indicate to a government which products to tax to raise revenue.

Answer the following questions, each of which starts with a calculation:

- 1. It is estimated that if the price of a bar of chocolate is changed by 4%, demand will alter by 6%.
  - a. Calculate the price elasticity of demand of this bar of chocolate.
  - b. Is the demand elastic or inelastic?
  - c. Explain one reason for the degree of elasticity you have found.
  - **d.** If the chocolate manufacturer wishes to raise revenue, should it lower or raise price?
- 2. A rise in the price of cigarettes from US \$ 6 to US \$ 9 is found to cause demand to contract from 200,000 to 140,000 a day in an island country.
  - a. Calculate the price elasticity of demand of cigarettes on the island.
  - b. Is the demand elastic or inelastic?