



ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2013

Economics
Assessment Unit AS 1

assessing

Markets and Prices

[AE111]

TUESDAY 4 JUNE, AFTERNOON

**MARK
SCHEME**

General Marking Instructions

This mark scheme is intended to ensure that the AS examinations are marked consistently and fairly. The mark scheme provides examiners with an indication of the nature and range of candidate responses likely to be worthy of credit. It also sets out the criteria which they should apply in allocating marks to candidates' responses. The mark schemes should be read in conjunction with these general marking instructions which apply to all papers.

Quality of candidates' responses

In marking the examination papers, examiners will be looking for a quality of response reflecting the level of maturity which may reasonably be expected of 17-year-olds, which is the age at which the majority of candidates sit their AS examinations.

Flexibility in marking

The mark scheme is not intended to be totally prescriptive. For many questions, there may be a number of equally legitimate responses and different methods by which the candidates may achieve good marks. No mark scheme can cover all the answers which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner for the paper concerned.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for valid responses rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected for 17-year-old candidates. Conversely, marks should only be awarded for valid responses and not given for an attempt which is completely incorrect and inappropriate.

Types of mark schemes

Mark schemes for questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication. These questions are indicated on the cover of the examination paper. Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

Levels of response

Questions requiring candidates to respond in extended writing are marked in terms of levels of response. In deciding which level of response to award, examiners should look for the "best fit" bearing in mind that weakness in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement. The following guidance is provided to assist examiners.

Threshold performance: Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.

Intermediate performance: Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.

High performance: Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

Marking calculations

In marking answers involving calculations, examiners should apply the “own figure” rule so that candidates are not penalised more than once for a computational error.

Quality of written communication

Quality of written communication is taken into account in assessing candidates’ responses to questions that require them to respond in extended written form. These questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication. Where the quality of candidates’ economics is not matched by the quality of written communication, marks awarded will not exceed the maximum for Level 2 in questions which have three levels of response or the maximum for Level 3 in those which have four levels of response.

For conciseness, quality of written communication is distinguished within levels of response as follows:

Level 1: Quality of written communication is limited.

Level 2: Quality of written communication is satisfactory.

Level 3: Quality of written communication is of a high standard.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

Level 1 (Limited): The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 (Satisfactory): The candidate makes a reasonable attempt to select and use an appropriate form and style of writing, supported with appropriate use of diagrams as required. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 (High Standard): The candidate successfully selects and uses an appropriate form and style of writing, supported with the effective use of diagrams where appropriate. Relevant material is organised with a high degree of clarity and coherence. There is widespread use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a sufficiently high standard to make meaning clear.

1 Cotton prices on the rise

- (a)
- in Jan 2009 cotton was trading at \$50/lb
 - cotton reached a peak of \$210/lb in March 2011
 - cotton prices increased gradually between January 2009 and August 2010
 - cotton prices increased more rapidly between August 2010 and March 2011
 - between January 2009 and March 2011 cotton prices increased by 320%.

[1] for identification of appropriate data

[1] for identification of trend

[2] for manipulation of data to show relative increase

[4]

- (b) The increase in cotton prices since 2009 has been caused by a combination of demand and supply side factors.

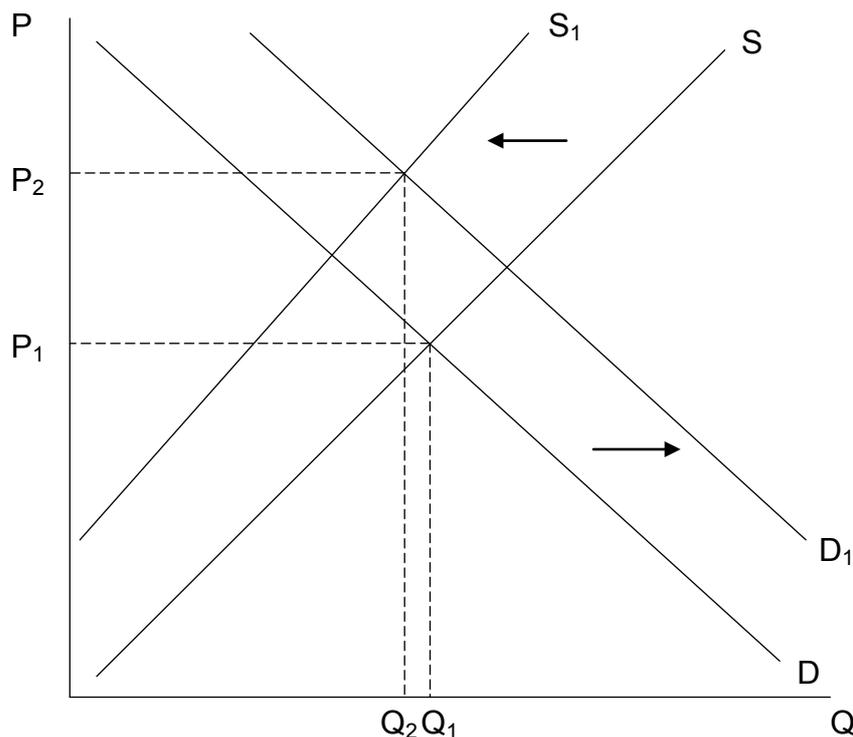
On the demand side, demand has increased as a result of:

- the increased demand for clothes in fast growing developing economies such as Brazil, India and China and
- the influence of speculators who saw an opportunity in late 2010 to make a quick profit by trading cotton.

On the supply side supplies have been hit by:

- floods in countries such as Pakistan and Australia and
- a combination of bad growing conditions and reduced subsidies in the world's largest exporter, the USA.

This is shown on the diagram below:



Level 1 ([1]–[2])

Candidate provides little explanation of the rise in cotton prices since 2009. No attempt is made to represent this in a diagram or if an attempt is made it will contain significant errors. At this level the candidate may simply quote directly from the source without explaining how these factors explain the rise in cotton prices. There is no significant economic analysis and quality of written communication is limited.

Level 2 ([3]–[5])

Candidate provides some explanation of the rise in cotton prices since 2009. An attempt is made to represent this in a diagram but it may contain some minor errors. There is a degree of economic analysis and quality of written communication is satisfactory.

Level 3 ([6]–[8])

Candidate provides a clear and comprehensive explanation of the rise in cotton prices since 2009. A clear and accurate diagram is drawn. At this level the candidate will identify a range of factors and will provide a clear explanation of how these factors explain the rise in cotton prices. There is significant economic analysis and quality of written communication is of a high standard. [8]

- (c) Price elasticity of demand measures how responsive quantity demanded is to a change in price. A high value for PED means that quantity demanded is very responsive to changes in prices. If clothes retailers were to increase prices they would find that quantity demanded would fall by a significant amount which would result in a reduction in total revenue and in turn profits. Consequently retailers have little option but to look for alternative methods of maintaining profitability such as attempting to reduce costs.

Appropriate development

- definition of PED
- explanation of how PED is calculated
- explanation of impact of high PED value on pricing decisions
- numerical example
- appropriate diagrams.

Level 1 ([1]–[2])

Candidate shows little understanding of why a high price elasticity of demand for clothing means that retailers have to absorb higher costs. Quality of written communication is limited.

Level 2 ([3]–[5])

Candidate shows some understanding of why a high price elasticity of demand for clothing means that retailers have to absorb higher costs. Quality of written communication is satisfactory.

Level 3 ([6]–[8])

Candidate shows comprehensive understanding of why a high price elasticity of demand for clothing means that retailers have to absorb higher costs. Quality of written communication is of a high standard. [8]

- (d) A change in the price of cotton may have an impact on a range of other markets.

The markets most likely to be affected are:

- the market for substitute goods such as man-made fibres
- the market for factors of production used in the production of cotton, e.g. fertiliser, seeds, etc
- the market for other goods for which cotton is an input, e.g. clothing and soft furnishing.

Level 1 ([1]–[2])

Candidate shows little understanding of how a change in the price of cotton may have an impact on a range of other markets. Quality of written communication is limited.

Level 2 ([3]–[5])

Candidate shows some understanding of how a change in the price of cotton may have an impact on a range of other markets. Quality of written communication is satisfactory.

Level 3 ([6]–[8])

Candidate shows comprehensive understanding of how a change in the price of cotton may have an impact on a range of other markets. Quality of written communication is of a high standard. [8]

- (e) Those who oppose the subsidies given to EU and US farmers argue that it distorts the market and leads to poverty in LEDCs since they cannot gain access to EU and US markets. They also argue that these subsidies represent an inefficient use of scarce government resources.

However, those in favour of agricultural subsidies argue that they are needed to protect EU and US farmers and the countryside. They also argue that the subsidies ensure adequate supplies of agricultural produce at stable prices. They argue that the immediate removal of subsidies would cause even further increases in the price of cotton which would have huge impacts on textile producers and consumers.

Issues for discussion and evaluation include:

- impact of subsidies on LEDCs
- opportunity cost of subsidy
- inefficiency of CAP and US cotton subsidies
- administration costs of subsidies
- need to protect EU and US farmers
- impact of subsidies on environment
- reference to the fact that a large proportion of subsidies are paid to large wealthy farmers

- the disruptive impact of an immediate removal of subsidies and the need for a phased reduction
- impact of removal of subsidies on price of clothing
- political impact of removing subsidies to domestic producers
- appropriate diagrams.

Level 1 ([1]–[4])

Candidate shows very limited understanding of the arguments for and against the immediate removal of EU and US subsidies to their cotton producers. There is no significant evaluation of the issues and quality of written communication is limited.

Level 2 ([5]–[8])

Candidate provides some understanding of the arguments for and against the immediate removal of EU and US subsidies to their cotton producers. There is a degree of evaluation and quality of written communication is satisfactory.

Level 3 ([9]–[12])

Candidate provides a clear and comprehensive understanding of the arguments for and against the immediate removal of EU and US subsidies to their cotton producers. There is significant evaluation and judgement and quality of written communication is of a high standard.

[12]

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2 UK firms and workers encouraged to specialise

(a) The term factors of production refers to the resources an economy uses to produce goods and services. These resources are normally divided into four categories:

- **Land.** The factor of production land refers not only to the actual physical land itself, but also to the minerals, raw materials, vegetation and wildlife that can be extracted from it. Some countries, for example Saudi Arabia are naturally endowed with large quantities of natural resources such as oil, and their wealth depends on their ability to extract and exploit these resources
- **Labour.** This factor of production refers to the workers who make the products. This includes the workers who work directly in the production process and also those who are indirectly involved, for example the clerical workers, support staff and management
- **Capital.** The term capital has many meanings and is sometimes used to refer to the finance needed to start-up and run the business. However, strictly speaking capital refers to:
 - **Fixed capital** – which is the machinery and equipment which is used by the firm to produce its output
 - **Working/circulating capital** – which refers to the stock of finished and semi-finished goods and components which will either be consumed in the future or used up in the production process

- **Enterprise.** The term enterprise or entrepreneurship refers to the management skills needed to bring all the other factors together and make them work in a way that will produce a product or service that can then be sold to others at a profit.

Level 1 ([1]–[3])

Candidate shows little knowledge or understanding of factors of production. There is at best a seriously flawed definition and little development through relevant examples or technical language. Quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some knowledge or understanding of factors of production. There is a credible definition though this may contain minor errors and some development through relevant examples or technical language. Quality of written communication is satisfactory.

Level 3 ([8]–[10])

Candidate shows extensive knowledge or understanding of factors of production. There is an accurate definition and extensive development through relevant examples or technical language. Quality of written communication is of a high standard. [10]

- (b) It was Adam Smith who first wrote about specialisation and the division of labour in his book “The Wealth of Nations”. The division of labour is the splitting of the production process into a number of individual tasks and making each task the responsibility of one worker. Therefore it involves each worker specialising in a particular task.

Using the example of a pin factory Smith explained how productivity could be increased when the manufacturing process was broken down into a number of specialised tasks.

The use of specialisation increases production possibilities in a number of different ways:

- if a person spends his entire time performing one task he becomes very good at that task, therefore increasing efficiency
- no time is wasted in moving from one job to another
- if workers specialise they do not need a full set of tools or other equipment which reduces a firm’s costs
- workers can specialise in the job to which they are best suited
- when a job is broken down into a set of separate processes it is possible to use machinery that will carry out that particular operation. This will increase the speed of production
- this will cause the PPF to shift to the right.

Issues for analysis and discussion include:

- definition and explanation of specialisation (and/or division of labour)
- definition and explanation of productivity
- definition and explanation of Production Possibility Frontier
- advantages of specialisation
- impact of specialisation on productivity and output
- impact of specialisation on the Production Possibility Frontier
- relevant examples
- relevant diagrams.

Level 1 ([1]–[5])

Candidate provides little analysis of how specialisation increases production possibilities. There is no significant economic analysis or application. Quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some analysis of how specialisation increases production possibilities. There is a degree of economic analysis and application. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides extensive analysis of how specialisation increases production possibilities. There is extensive and accurate application and analysis. Quality of written communication is of a high standard.

[15]

- (c) While the use of specialisation has brought many benefits to UK firms, it is not without its problems.

For example, it has been argued that:

- if workers specialise too much it may be difficult for them to switch to performing other tasks when there is a need to cover for sick colleagues or when other workers are off on training courses
- workers may get bored performing the same tasks each day. It is argued that this could result in more mistakes and more worker absenteeism or a higher level of labour turnover. All of which are costly to the firm
- specialisation can lead to workers having a narrow range of skills. When demand or supply conditions change their particular skills may no longer be needed. This can make reemployment much harder to secure
- specialisation increases the degree to which one task is dependent on the other task. A hold up in production in one stage may hold up the whole production process, which can be costly to firms
- all of the above apply at a personal, regional and national level.

Despite these problems however, specialisation has allowed firms to achieve much higher levels of output and productivity which has in turn allowed them to compete in the global market place. As long as firms and workers are aware that there may be an optimal level of specialisation, are conscious of the potential drawbacks of overspecialisation and take the necessary steps to reduce its negative side effects, it can be used to benefit both workers and firms.

Level 1 ([1]–[5])

Candidate displays little understanding of the view that too much specialisation is a bad thing. There is no significant analysis, application or evaluation of the issues and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some understanding of the view that too much specialisation is a bad thing. There is a degree of analysis, application and evaluation and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides a clear and comprehensive understanding of the view that too much specialisation is a bad thing. There is significant analysis and application with clear evaluation and judgement and quality of written communication is of a high standard.

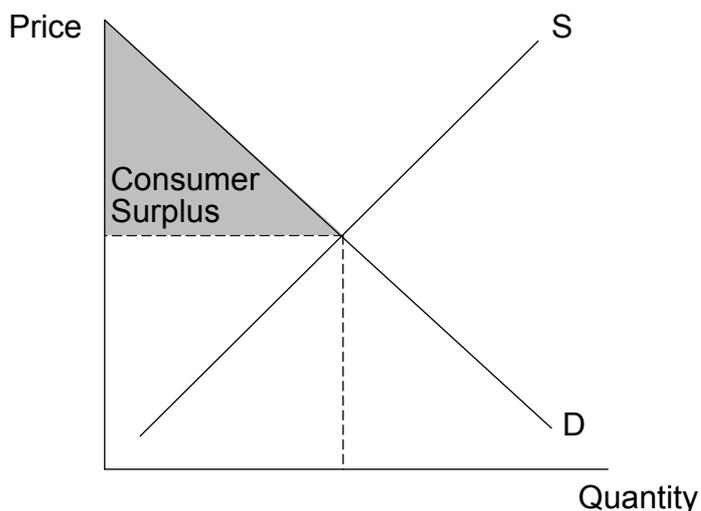
[15]

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3 MP calls for introduction of maximum rents

- (a) Consumer surplus is defined as the difference between what a consumer is willing to pay for a good and the price they actually pay. If a consumer is willing to pay £30 for a good but the market price of the good is £20 then the consumer earns a welfare bonus of £10. This welfare bonus is known as consumer surplus.

Consumer surplus can be shown on a diagram. It is equal to the area under the demand curve above the price line.



In general when prices rise consumer surplus falls therefore consumers face a reduction in welfare. When price falls consumer surplus generally increases therefore consumers receive an increase in welfare. However, this will ultimately depend on what has caused the change in price.

When the demand for a good or service is perfectly elastic, consumer surplus is zero because the price that people pay matches precisely the price they are willing to pay. In contrast, when demand is perfectly inelastic, consumer surplus is infinite. Demand is totally unresponsive to a price change. Whatever the price, the quantity demanded remains the same.

Appropriate development

- definition of consumer surplus
- numerical example
- appropriate diagram
- impact of elasticity on consumer surplus.

Level 1 ([1]–[3])

Candidate shows little knowledge or understanding of consumer surplus. There is at best a seriously flawed definition and little development through relevant examples, diagrams or technical language. Quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some knowledge or understanding of consumer surplus. There is a credible definition though this may contain minor errors and some development through relevant examples, diagrams or technical language. Quality of written communication is satisfactory.

Level 3 ([8]–[10])

Candidate shows extensive knowledge or understanding of consumer surplus. There is an accurate definition and extensive development through relevant examples, diagrams or technical language. Quality of written communication is of a high standard. [10]

- (b) Producer surplus is defined as the difference between what a producer is willing to supply a good for and the price they actually receive.

If a producer is willing to supply a good onto the market for £10 but the market price is £20 then this producer will earn a welfare bonus of £10. This welfare bonus is known as producer surplus.

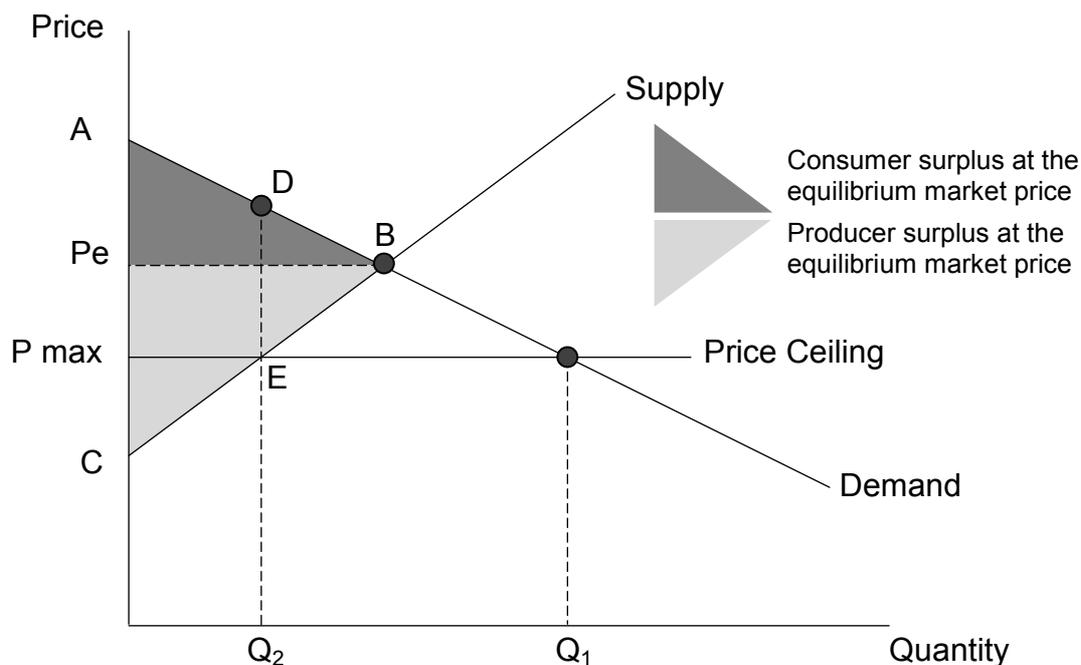
Producer surplus can be shown on a diagram. It is equal to the area above the supply curve below the price line.

The introduction of a maximum price for rented accommodation, set below the equilibrium price, will lead to an increase in consumer surplus and a reduction in producer surplus as shown in the diagram on the next page.

Consumer surplus before the maximum price is equal to area ABPe. Consumer surplus after the maximum price is imposed is equal to area ADEPmax.

Producer surplus before the maximum price is equal to area BCPe.
 Producer surplus after the maximum price is imposed is equal to area PmaxEC.
 The introduction of the maximum price leads to a deadweight welfare loss of DBE.

Clearly if the maximum price was set above the equilibrium it would have no impact on consumer or producer surplus.



Issues for analysis and discussion include:

- definition and explanation of producer surplus
- impact on consumer and producer surplus
- impact on tenants
- impact on landlords
- discussion of welfare implications
- long run impact on supply
- possible development of black markets
- problems of non-compliance and enforcement
- relevant diagrams
- relevant examples.

Level 1 ([1]–[5])

Candidate provides little analysis of the impact of the introduction of a maximum price for rented housing. At this level a candidate may discuss some of the wider implications of a maximum price such as non compliance and enforcement problems without focusing on its impact on consumer and producer surplus. There are few if any relevant examples and diagrams will be non-existent or seriously flawed. Quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some analysis of the impact of the introduction of a maximum price for rented housing. There are some relevant examples, perhaps supported by a relevant, if slightly flawed diagram. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides extensive analysis of the impact of the introduction of a maximum price for rented housing. There is significant development through examples and or flawless diagrams. Quality of written communication is of a high standard. [15]

- (c) The UK government intervenes in the housing market in a number of different ways. For example planning permission is required to build a house, green belt restrictions place limits on where houses can be built and what type/style of house can be built. At the same time the government provide social housing, and assistance to help individuals purchase a house through the shared equity scheme. Stamp duty is also levied on house purchases. For some economists this intervention (particularly with regard to planning restrictions) has made the UK housing market much more volatile, since it reduces the price elasticity of supply.

They argue that if the market was free from government intervention it would lead to a much more efficient allocation of resources.

Others however would argue that housing is too important to be left to market forces and the government need to intervene to ensure that the various market failures are dealt with.

Issues for discussion and evaluation include:

- market failure in the housing market and the need for government intervention
- good quality housing as a merit good
- external costs associated with unregulated house building
- various form of government intervention
- government failure – inefficiency/problems associated with government intervention
- efficiency of market mechanism
- price elasticity of housing supply
- homelessness and poor quality housing.

Level 1 ([1]–[5])

Candidate displays little understanding of the view that housing is too important to be left solely to market forces. There is no significant evaluation of the issues and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some understanding of the view that housing is too important to be left solely to market forces. There is a degree of evaluation and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides a clear and comprehensive understanding of the view that housing is too important to be left solely to market forces. There is significant evaluation and judgement and quality of written communication is of a high standard.

[15]

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4 Health campaigners call for complete ban on smoking

- (a) Social costs are the sum of private costs and external costs, whereas social benefits are the sum of private benefits and external benefits.

If we consider the case of an individual smoking a cigar, the social cost includes the private costs to the individual of purchasing the cigars and any increased health risk plus the external cost inflicted on society as a result of having to pay for the negative health effects on the individual. Whereas the social benefit includes any enjoyment the individual gains from using the cigar plus any potential benefit society might gain from the cigar being smoked, for example, some non-smokers claim to enjoy the smell of cigar smoke.

Appropriate development

- definition of social costs and benefits
- explanation of private costs and benefits
- explanation of external costs and benefits
- examples of private costs and benefits
- examples of external costs and benefits.

Level 1 ([1]–[3])

Candidate shows little or no understanding of the terms social cost and social benefits. There is no significant development and quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some understanding of the terms social cost and social benefits. There is a degree of development and quality of written communication is satisfactory.

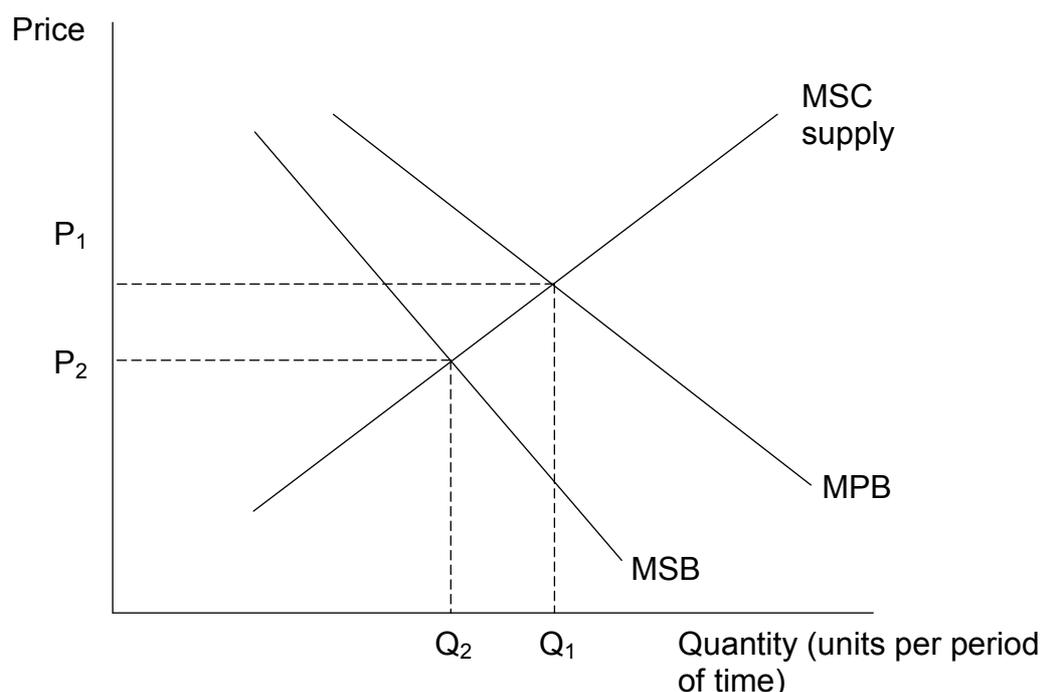
Level 3 ([8]–[10])

Candidate shows clear understanding of the terms social cost and social benefits. There is significant development and quality of written communication is of a high standard.

[10]

- (b) Demerit goods are goods which in a paternalistic sense the government believe we should not consume.

Demerit goods are often over consumed because the benefit received by the consumer exceeds the social benefit. For example, in the case of smoking the demand curve based solely on the marginal private benefit (MPB) is higher than that which encompasses the disutility suffered by others as a consequence of someone smoking (MSB). Hence cigarettes are overvalued and over-consumed in a free market.



The free market price is P_1 and consumption is Q_1 . When allowance is made for the disutility suffered by others then the socially optimum level of consumption is Q_2 .

Alternatively demerit goods may be over consumed due to a lack of information on the part of the person consuming the good. Some people may not be fully aware of the dangers involved in smoking or may simply discount the dangers since they are likely to occur some time in the future while the benefits occur immediately.

Level 1 ([1]–[5])

Candidate shows little understanding of why free markets often lead to the over consumption of demerit products such as cigarettes. No attempt is made to represent this in a diagram or if an attempt is made it will contain significant errors. Quality of written communication is limited.

Level 2 ([6]–[10])

Candidate shows some understanding of why free markets often lead to the over consumption of demerit products such as cigarettes. The diagram will support the analysis but may contain some minor errors. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate shows comprehensive understanding of why free markets often lead to the over consumption of demerit products such as cigarettes. This analysis is supported by a clear and accurate diagram. Quality of written communication is of a high standard. [15]

- (c) Those who argue that smoking should be outlawed argue that the external costs associated with their use are so large that society would benefit from a complete ban on their use. They argue that individuals lack the information or the ability to make rational decisions on the use of cigarettes and therefore the government should intervene to correct this market failure.

However, those opposed to a ban on cigarettes argue that it is an extreme measure which represents an encroachment on the rights of the individual. They also argue that a complete ban would be hard to implement and other measures might be more effective in reducing the negative effects of smoking.

Issues for discussion and evaluation include:

- impact of cigarettes on health
- cost to NHS of treating health problems
- reference to passive smoking
- difficulty in quantifying health effects and costs
- difficulty in imposing complete ban
- reference to the right of an individual to choose whether to smoke or not
- reference to nanny state
- cost of enforcing a complete ban
- side effects of prohibition – development of illegal markets
- discussion of the relative effectiveness of alternative policies to reduce negative effects – improve information, age restrictions, taxation, etc
- appropriate examples
- international comparisons.

Level 1 ([1]–[5])

Candidate shows very limited understanding of the arguments for and against the view that a complete ban is the most effective method of dealing with the problem of smoking. There is no significant evaluation of the issues and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some understanding of the arguments for and against the view that a complete ban is the most effective method of dealing with the problem of smoking. There is a degree of evaluation and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides a clear and comprehensive understanding of the arguments for and against the view that a complete ban is the most effective method of dealing with the problem of smoking. There is significant evaluation and judgement and quality of written communication is of a high standard.

[15]

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Total

80