

Candidate Marks Report

Series : 6 2018

This candidate's script has been assessed using On-Screen Marking. The marks are therefore not shown on the script itself, but are summarised in the table below.

Centre No :	Assessment Code :	H460
Candidate No :	Component Code :	01
Candidate Name :		

Total Marks :

In the table below 'Total Mark' records the mark scored by this candidate.
'Max Mark' records the Maximum Mark available for the question.

Paper: H460/01

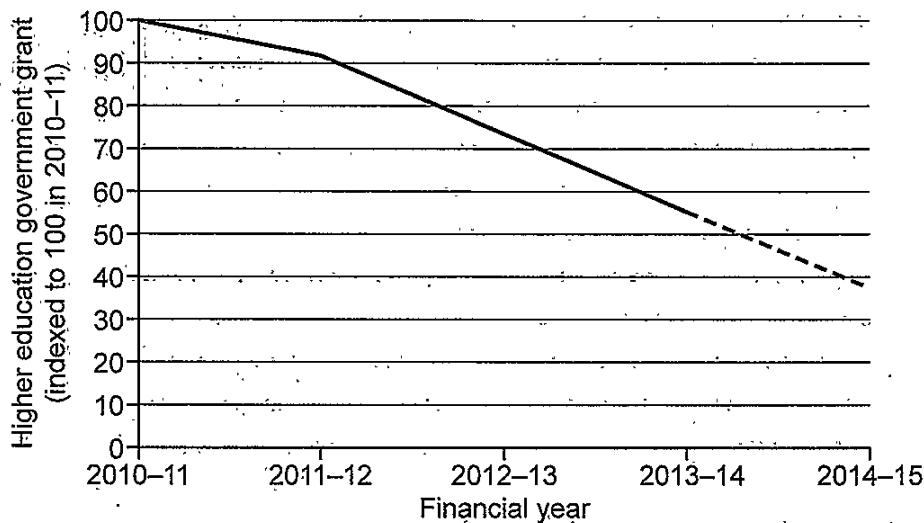
SECTION A

Read the following stimulus material and answer all parts of Question 1 which follow in this section.

Who should pay for students to study at university?

5. The proportion of university education provided by the public sector and the private sector varies throughout the world. Most UK universities are generally considered to be in the public sector. In 2017, there were only five private sector universities in the country. The difference between public sector and private sector universities, however, is changing. This is the result of a shift in the funding of higher education, particularly in England: Universities are obtaining less of their income from government financed teaching grants and an increasing proportion from tuition fees. Fig. 1 shows how the amount of government spending on higher education has fallen in recent years.

Fig. 1 – Spending on higher education government grant



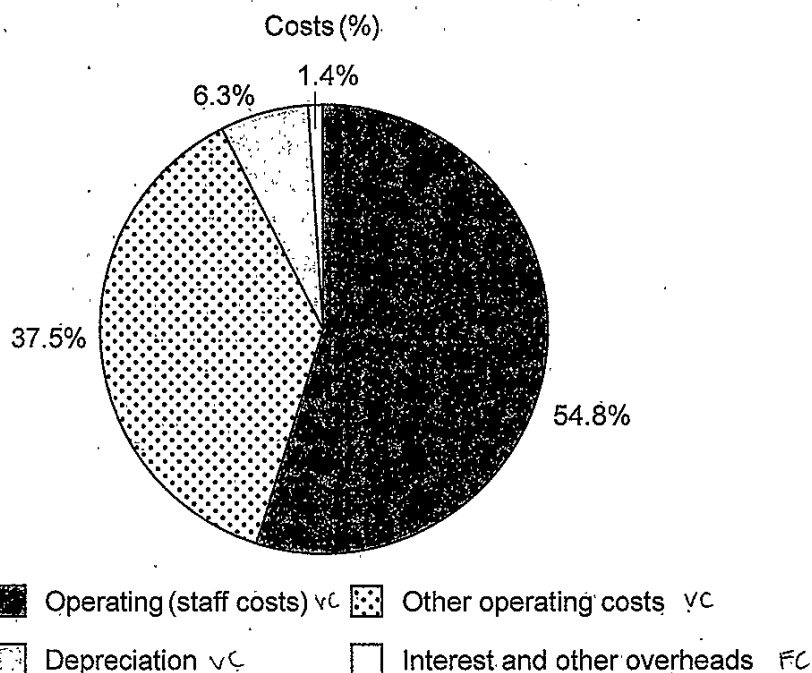
Note: Figure for 2014-15 was a predicted figure. Figures are in real terms, adjusted for inflation using the GDP deflator.

- 10 Tuition fees were introduced in 1998 at a maximum of £1,000 a year. By 2017, these had risen to a maximum of £9,250 for UK and EU students studying in England. Most universities charge this maximum annual fee. In October 2017, the government announced that it was freezing tuition fees at £9,250 instead of increasing them in line with inflation and raising the student loan repayment threshold from £21,000 to £25,000. Most students would like the government to maintain the freeze for some time or even scrap tuition fees altogether.
- 15 Some A Level students do not gain the grades needed to take up university places. In other cases, however, it is tuition fees which discourage them from applying to university. These students are concerned about future debt levels and value for money. The average pay for university graduates is higher than that for non-graduates. Future earnings, however, vary according to the subject studied, university attended and job gained after graduation.
- 20 the highest earning post graduates tend to have been students of medicine, veterinary science, economics and engineering. While the lowest earners are found to be former students of English literature, communication, agriculture and creative arts. A Level pupils are also aware that the learning experience varies between courses and universities, with some undergraduates complaining about lack of contact hours and high numbers of students in seminar groups.



25 While a limit on tuition fees may be welcome to many students, universities are concerned about
 the measure. They are worried that if they are not able to charge higher tuition fees and if they
do not get more funding from the government, they will struggle to cover their costs. Universities'
 operating costs vary with the number of students they teach. Fig. 2 shows a breakdown of the
 total cost of £31.2 billion incurred by UK universities in 2014–2015 when they were educating
 30 2.2 million students.

Fig. 2 – The composition of the total cost of UK universities 2014–2015



The cost of providing degree courses varies between subjects and universities. It is, for example, more expensive to provide engineering courses than English Literature courses. The University of Cambridge, for instance, spends more per student than the University of Bedfordshire.

35 The amount spent on education for people above school age (tertiary education), includes spending on degree courses and vocational courses. Such education provides a range of benefits not only to those who undertake the courses but also to others. Tertiary education increases a country's output and the productivity of its workers. UK universities are also creating an increasing number of spin-off companies which create new jobs.



Fig. 3 shows how the proportion of people of two different age ranges who had completed tertiary education varied in selected countries in 2016, as well as average income in those countries.

Fig. 3: – The proportion of people who had completed tertiary education in selected countries in 2016

Country	25–34 year olds who completed tertiary education	55–64 year olds who completed tertiary education	Average income (GDP per head in US\$) 2016
Canada	60.6	46.2	42 200
Germany	30.5	26.3	42 000
Japan	60.1	39.7	39 100
New Zealand	43.4	28.2	39 400
South Korea	70.0	19.7	27 600
United Kingdom	52.0	37.6	39 900
United States of America	47.5	41.9	57 500



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Answer all the questions.

- 1 (a) Explain, using evidence from the stimulus material, why higher education is a private good:

Higher education is provided by the free market and so an annual price is charged to those who consume it, in 2017 the maximum price for UK and EU students was £9,250. Higher education does not experience a free-rider problem as public goods do and so is a private good. [2]

- (b) Calculate, using information from the stimulus material, the average fixed cost of educating a university student in 2014-2015.

$$TC = VC + FC \quad \text{Total cost} = \text{£}31.2 \text{ bn} = VC + FC \quad \begin{matrix} \text{0.4m} \\ \text{VC} = 98.6\% \text{ of } 31.2 \\ \text{VC} = 30.7 \end{matrix}$$

$$AFC = \frac{FC}{QTF} \quad FC = TC - VC$$

$$AFC = \frac{FC}{2.2m} \quad FC = \frac{31.2 - 30.7}{2} = \text{£}1136 \quad \text{[3]}$$

- (c) (i) Explain whether the information in Fig. 3 about average income and about 25-34 year olds who had completed tertiary education shows the expected relationship between the two.

It is assumed that tertiary education will increase output and productivity, however Fig 3 does not support this as ^{average} income is not the highest in countries with the highest rates of tertiary ^{education} income. For example, in South Korea they have the highest rate of tertiary education at 70.0% however they have the lowest average income of \$27,600. Germany has the lowest rate at 30.5% but the 2nd highest average income of \$42,000. Therefore the relationship between the two is negative. [2]



(ii) Explain, using information in Fig. 3, which country is likely to have experienced the lowest relative increase in occupational mobility over the last thirty to forty years.

Occupational mobility refers to the ability of workers to move between jobs using transferable skills they have acquired. Germany is likely to have experienced the lowest increase because their level of tertiary education is lower, therefore ^{many} people do not gain the vocational training necessary for them to change occupations. Only a small proportion of the country (30.5% of 25-54 year olds experienced this and 26.3% of 55-64 year olds, therefore the flexibility of labour and occupational mobility ^{will be lower.} [3]

(d) Evaluate whether students will benefit from the government freezing the maximum annual tuition fee for some time.

If the government freeze the tuition fee it will remain at £9250, despite any increase in inflation. This can have positive effects for students in the short run and long run, however the extent to which this is true depends on a number of factors.

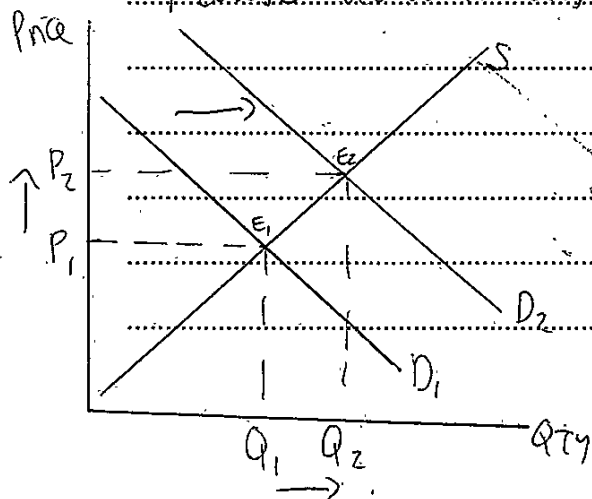
By freezing the maximum annual tuition fee, it will incentivise more students to ^{apply and} take up a place in university because they will not expect any significant increases in tuition fees. Students will benefit because the opportunity cost of attending university will fall and they will face lower debt burdens in the long run, in turn increasing students' confidence. They will feel more certain that their education ^{promotes greater} is value for money and so will ^{gain skills} apply and gain a higher paid job in the long run as a graduate.

However, ^{this} depends on ^{the type of} what degree courses experience a surge in demand. If more students are willing to gain a degree in agriculture or creative arts, they are unlikely

1
3
- Incentive
- cost opp
- debt burden
- stress
- may attend
- too high debt
- better prospect
- LR - AD - PP
- LR - AD - PP



to benefit as much as those who gain degrees in engineering or economics as these generate higher incomes after graduation. Furthermore, the annual tuition fee may already be too high and so there may be no benefits derived from freezing the maximum fee because students still face an 'unfair' price. It is for this reason that the government should consider alternatives such as scrapping the tuition fees altogether and providing information provision on why university is beneficial. It can also be argued that a freeze on fees will benefit students already in university, however in the long run, fees may increase significantly as more people take up courses at university. Following an increase in demand, the

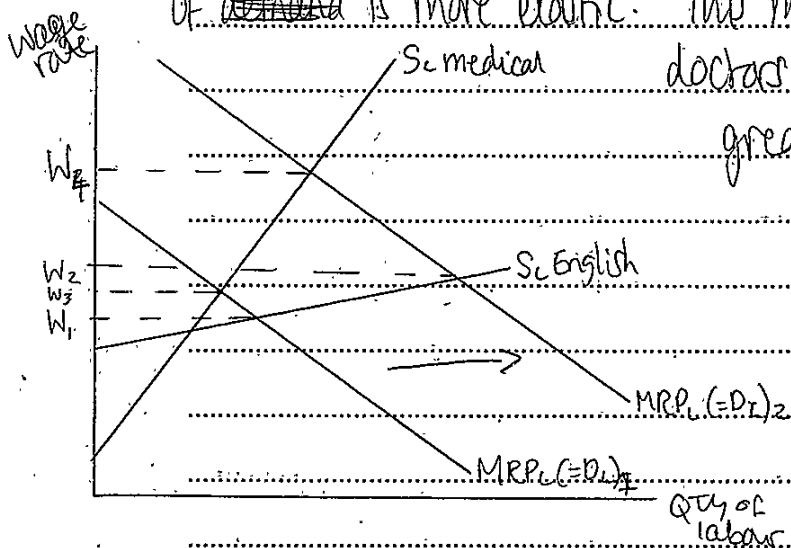


demand curve will shift right from D_1 to D_2 . There will be an expansion in supply, and a new equilibrium of E_2 will be achieved following an increase in price from P_1 to P_2 . This suggests [8] that a freeze on fees can increase fees in the long run as demand increases and the government will have no choice but to increase fees even beyond £9250. This may even be inevitable as the freeze will only last for a temporary period of time.



- (e) Evaluate, using evidence from the stimulus material, whether a higher tuition fee should be charged to medical students than to English Literature students.

Medical students tend to face achieve a higher wage upon leaving university and are more likely to find employment after graduation compared to English Literature students. This is because jobs for medical students tend to ^{be wage} have an inelastic whereas careers for English Literature students are more wage elastic; and wage elasticity of ~~demand~~ ^{supply} is more elastic. This means that in the workplace,



doctors face higher wages and greater bargaining power as their skills can be seen as more valuable.

Suppose there was a surge in demand from MRP_{L1} to MRP_{L2} , English literature students would

only achieve an increase in wage from W_1 to W_2

whereas medical students would face a greater increase in wages from W_3 to W_4 because their labour supply is inelastic ^{as they have more skills}. This suggests that tuition fees should be higher for medical students as the debt burden will be smaller and the repayment on debt will

account for a smaller proportion of total income. On the other hand, if tuition fees for both English literature and medical students are the same, English literature students have more fees to pay back as a percent of total income. Therefore, charging them lower fees can be considered more fair and equal. Despite this, there is no guarantee that doctors will be paid more, particularly in a monopsony employer such as the NHS who have the power to charge lower wages to



doctors. Furthermore, a higher tuition fee for medical students may reduce the amount of students ~~app~~ completing medical degrees and this creates implications in society because medicine and healthcare is an essential public good that produces positive externalities. A shortage in medical students ^{could} ~~may~~ create a fall in the ^{supply of} ~~derived~~ demand for healthcare, therefore a key merit good. Therefore, tuition fees should be kept the same. It could even be argued that tuition fees for medical students ~~should~~ be lower because it will encourage more people to study medicine, therefore increasing the supply of doctors who provide healthcare which improves the welfare of society.

Moreover, ~~high~~ the extent to which higher tuition fees should be charged to medical students depends on the costs faced by universities. As ~~is~~ stated in line 27, without funding from the government, "universities will struggle to cover their costs", therefore higher ~~fees~~ ^{fees} may be necessary in doing so. The university can then invest the extra revenue gained from increasing tuition fees into improvements in research facilities and teaching quality. This can decrease long run costs if ~~the~~ funds are used efficiently.

In conclusion, higher tuition fees should be charged to medical students because they ~~have~~ have a more wage inelastic supply of labour ^{due to} and a greater level of specialist skills, consequently they can demand higher wages and repay student loans faster compared to English [12] literature students who tend to have lower income jobs upon graduating. ~~Higher~~ Therefore, higher fees increase equity and improve the distribution of income in the long run, however the universities ~~must~~ should utilize the funds from higher fees and invest in reducing costs ~~of~~ so that tuition fees do not have to remain high.



SECTION B

Answer EITHER question 2 OR question 3.

EITHER

2* Governments may use buffer stock systems to reduce the market failure caused by price instability.

Evaluate, using an appropriate diagram(s), the effectiveness of a buffer stock system in reducing market failure. [25]

OR

3* Some economists claim that the Royal Mail was more efficient when it was a monopoly.

Evaluate, using an appropriate diagram(s), whether a monopoly will be efficient. [25]

Depends CMA
CMA
objection
sub
level
CSE
Practical
op/mtf

Question no. 3

<p>YES</p> <p>Dynamic eff → strong evidence</p> <p>RFD → SA, PPF</p> <p>Economies of Scale → extend internal network</p>	<p>NO</p> <p>Prod alloc → no</p> <p>A.P. failure → reduction in CSR</p> <p>X-inefficiency → esp if merge</p>
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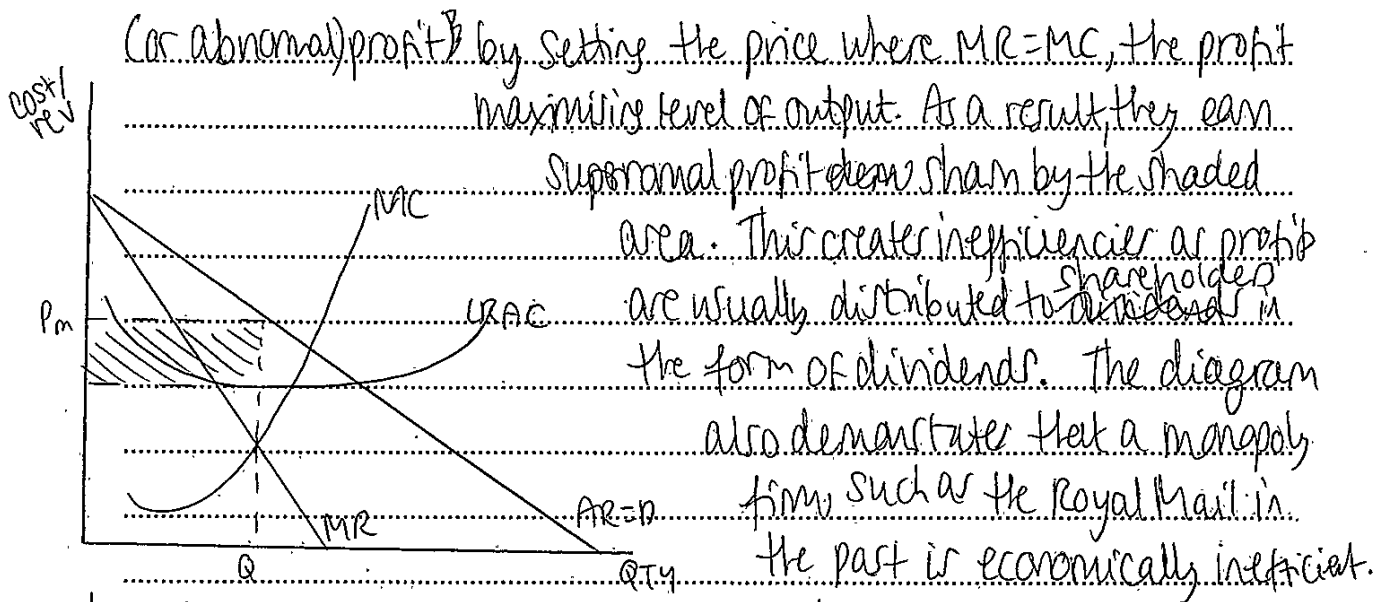
A monopoly is a market structure in which there is one seller of a good or service. They usually dominate the market with a 25% share and they act as price makers as they face a relatively inelastic demand curve. They are short and long run profit maximisers and lack productive and allocative efficiency, however they can be efficient in other areas.

Monopolies are also operate in a with little to no competition and so do not face ^{any} pressures in lowering prices, as is the case with other market structures such as oligopolies and monopolistic competition, therefore the extent to which ~~through~~ monopolies are efficient depend on a number of factors.

In a monopoly, firms are able to make supernormal



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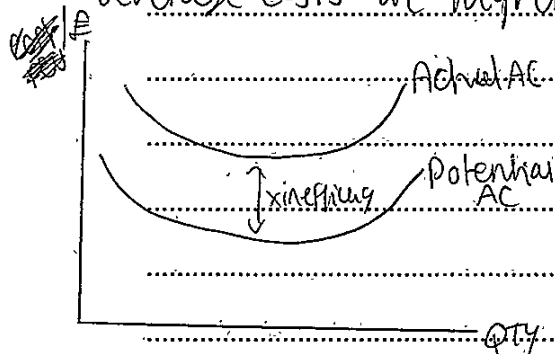
This is because the firm is not operating at the minimum point of its LRAC curve and so is productively inefficient. Price is also not equal to MC and so the firm is not allocatively efficient. They are able to charge higher prices as there is no threat of entry (it is not a contestable market) and so ~~producer~~ ^{consumer} surplus is converted into producer surplus. This can also occur through ^{3rd} price discrimination, whereby a monopoly charges consumers based on their willingness to pay (first degree) or their relative price elasticity of demand (3rd degree). This can also be referred to as optimal pricing and reduces allocative efficiency by reducing ~~consumer~~ ^{consumer} surplus, therefore suggesting that monopolies are inefficient.

On the other hand, the extent to which a monopoly is allocatively efficient depends on how it ~~with~~ utilises its supernormal profits. It may have philanthropic objectives, as seen with firms such as Virgin and Microsoft and so may distribute profits to wider society. This can be done in what is known as corporate social responsibility (CSR). A monopoly may use its profits to benefit society, increase its reputation



and create a positive image. Furthermore, the monopoly theory assumes that all monopolies profit maximize, however there are other objectives that they may prioritize such as sales maximisation whereby $AC = AR$ or revenue maximisation ($MR = 0$). These can increase a monopoly's market share and increase efficiency if such objectives are carried out alongside a lowering of prices. Therefore, the extent to which a monopoly is efficient depends on its objectives.

Furthermore, in the real world, a monopoly is likely to ~~try~~^{carry} out profit-satisficing behaviour as a result of the principal-agent problem and this can create X-inefficiency. This occurs when actual average costs are higher than potential costs as a result of



organizational slack. This means that a monopoly does not exploit its potential for cost savings and so may experience technical inefficiencies. This may occur

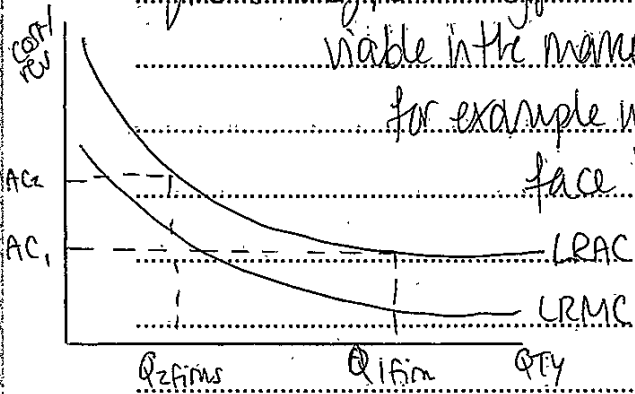
if a large monopoly decides to merge as operational bottlenecks may create conflicts among shareholders.

On the other hand, a monopoly may experience dynamic efficiency whereby it improves its coordination and technological production processes, this can be done by investing in research and development which acts as a sunk cost. This dynamic efficiency can improve the quality of goods, therefore increasing allocative efficiency and ~~potentially~~ productive efficiency in the long run if the firm invests heavily in human capital. Joseph Schumpeter



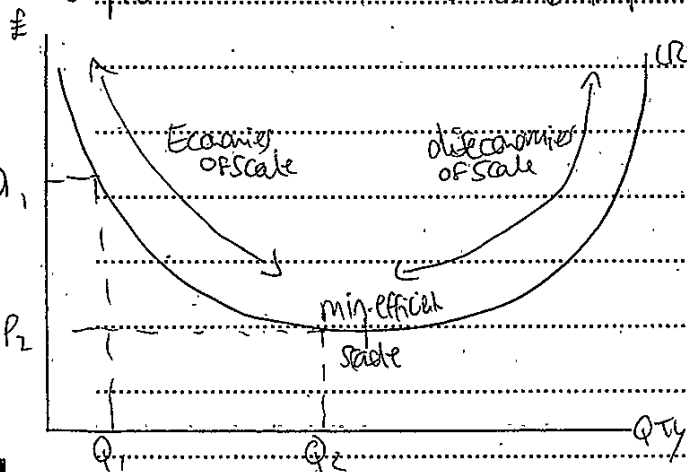
argued that a preoccupation with static efficiency prevents dynamic efficiency in the long run, therefore monopolies are the most efficient market structures as supernormal profits provide funds for improvements.

Furthermore, the extent to which a monopoly will be efficient depends on the type of monopoly. If it is a natural monopoly, it is highly likely that there will be a greater degree of efficiency. This occurs when the only one firm is



viable in the market and the most efficient number is one, for example with railway networks. Natural monopolies face high fixed costs and lower marginal costs. Therefore its LRMC is below its LRAC. In the case of a natural monopoly, monopolies are efficient.

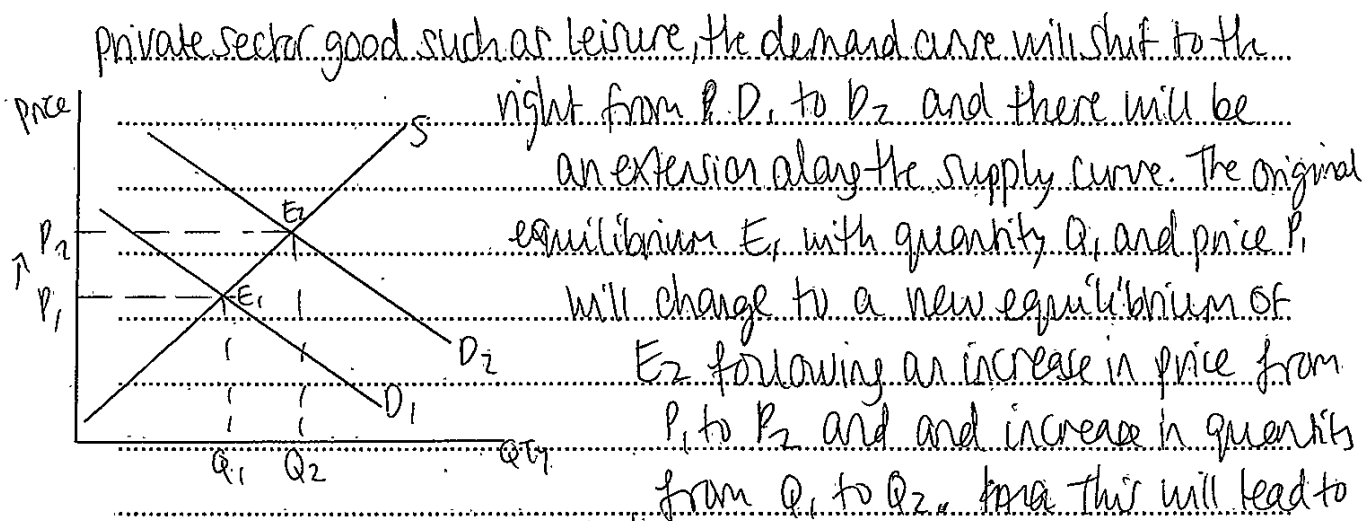
Moreover, the extent to which monopolies are efficient also depend on whether they decide to develop economies of scale. Internal economies of scale refer to an expansion in the firm (e.g. risk-bearing, financial, technical and purchasing) and economies of scale. External economies of scale refer to expansion in the industry as a result of an increase in ^{the pool of} skill labour or improvements in the industry's infrastructure.



Suppose a monopoly is able to bulk buy, this will be done at a lower cost^{of P2}, therefore reducing LRAC and obtaining Q2 output. This improves productive efficiency. However, if a monopoly grows too big they may experience diseconomies

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a new allocation of resources, ^{and} however this ~~may~~ will occur automatically in a market economy. This suggests that a market economy is the best way to allocate resources because the price mechanism adjusts rapidly to ensure consumer needs are met.

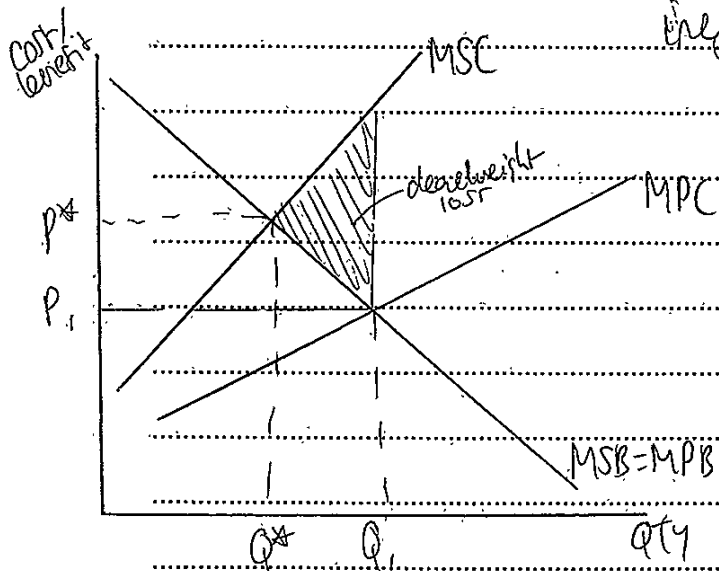
Moreover, a market economy is the best way to allocate resources because goods and services tend to be varied and markets respond to changes in consumer preferences and so there is greater choice. This can result in greater allocative efficiency as consumer satisfaction will be maximised. This contrasts to a centrally planned economy whereby consumers lack choice and the government decides what goods are produced, how they are produced and for whom. Therefore it could be argued that the basic economic problem is dealt with more efficiently in a market economy.

On the other hand, in a market economy such as Estonia which continues to operate in such a market, public goods may be underprovided. This is because there will be no fiscal incentive to produce such goods due to the free rider problem and the nature of public goods as non-rival and non-excludable. As a



result, merit goods with positive externalities will be underprovided such as national defence and law and order. There ~~are~~ may also ~~only~~ be a lack of public healthcare and this can create inequality in society as ~~ertain~~ the poor have to pay for healthcare and private firms have the power to exploit consumers by charging high prices. This is particularly the case with monopoly firms whereby there is one seller of a good or service. Therefore market economies are not the best way to allocate resources, however this does depend on the type of resource, particularly, public goods

market failure through
Furthermore, a market economy can create a misallocation of resources ~~if~~ as there is likely to be less government regulation. As a result, firms are more likely to pollute ~~in a firm~~ inefficient production techniques



as a result of ~~the~~ cost saving incentives. In a market economy, resources will be ~~of~~ allocated at Q_1, P_1 and this creates a deadweight loss to society shown by the shaded area. This demonstrates a loss in consumer welfare as

a result of a negative production externality as Marginal social cost exceeds marginal private cost. This is far from the social optimum of P^*, Q^* and ~~again~~ therefore suggests that a market economy



is not the best way to allocate resources. Despite this, in the real world, a market economy is likely to face some government intervention and so this misallocation of resources as a result of pollution and environmental degradation may be internalised by a tax which will bring the economy closer to social optimum and solve market failure. Therefore the extent to which a market economy is the best way to allocate resources depends on the extent to which there is government intervention or provision, if there is any at all, ~~the examples~~

Furthermore, in a market economy there is likely to be more unemployment than in a planned economy such as North Korea whereby the government can allocate jobs. This suggests that market economies may face greater inequality. However this is not always the case as the UK is a market economy with a relatively low gini coefficient of 0.34, suggesting a relatively high level of income equality and a benefit system is in place to improve equality.

In conclusion, it can be argued that a market economy is the best way to allocate resources as the price signals act quickly and automatically, therefore allowing for greater flexibility in market forces. In a market economy there tends to be a greater degree of incentivising behaviour and competition whereby firms and households ~~more~~ maximise profits and utility. However, there may be exploitative monopolies that charge a

END OF QUESTION PAPER

See additional page



ADDITIONAL ANSWER SPACE

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).

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of scale. A large airline ~~comp~~^{monopoly} may face coordination problems as a result of such a large operation, they face increasing costs and increasing efficiency. Therefore the extent to which a monopoly is efficient depends on the extent to which it exploits economies of scale efficiency.

In conclusion, a monopoly firm can be both efficient or inefficient. A monopoly is likely to be more efficient in the long run as it invests its supernormal profits into innovation and R&D. However, a monopoly may experience a high degree of X-inefficiency as a result of little competitive pressures. They may also exploit their price making powers and so the Competition and Markets Authority may need to step in to ensure prices are not too high. Regulation is also required in natural monopoly markets such as water and electricity which is regulated by OFWAT and OFGEM. Finally, the case for monopolies being efficient is debateable, in reality, different monopolies have different objectives and if it is assumed monopolies who seek to profit maximise who are most likely to be ~~eg~~ inefficient as they seek to maximise self-interest and supernormal profit.



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4. If an unfair price were above the market equilibrium, here you suggest market economies do not always efficiently allocate resources. It is for this reason that a degree of government intervention is necessary to improve the operation of a market economy, for example with the organisations ^{such as} the Competition and Markets Authority and the Office of Fair Trade. In this case, a market ~~with~~ economy will be the best way to allocate resources.



