Qurious Education

2017 Edexcel Economics Paper 1 Microeconomics Paper

Model Answers

This document is helpful for longer essay questions/responses. Please reference the Mark Scheme for answers to Multiple Choice questions.

Examiners' Report
June 2017

GCE Economics A 9EC0 01

Question 1 (a)

This is a Theme 1 question and a number of responses only stated the equilibrium price and not the quantity as requested. Candidates need to practice completing such tables as part of their exam preparation.

1 The table shows market data for e-cigarette kits. The original equilibrium price is £23.

Price £	Quantity demanded per month (000)	Quantity supplied per month (000)	New quantity demanded per month (000)	New quantity supplied per month (000)
25	5 8	9 10	8	10
24	6 9	8 9	9	9
23	7 10	7 8 —	10	8
22	8 11	6 7	11	7
21	9 12	5 6	12	6

As a result of a successful advertising campaign, demand increased by 3 000 e-cigarette kits at all prices. At the same time production costs fell leading to an increase in supply of 1 000 e-cigarette kits at all prices.

(a) Calculate the new equilibrium price and quantity following the successful advertising campaign and the fall in production costs. Use the last two columns for your working.

(4)

9000 units
£24

1 The table shows market data for e-cigarette kits. The original equilibrium price is £23.

Price £	Quantity demanded per month (000)	Quantity supplied per month (000)	New quantity demanded per month (000)	New quantity supplied per month (000)
25	5	9	8000	10 000
24	6	8	9000	9000
23	7	7	10 000	8000
22	8	6	11000	7000
21	9	5	12000	6000

As a result of a successful advertising campaign, demand increased by 3 000 e-cigarette kits at all prices. At the same time production costs fell leading to an increase in supply of 1000 e-cigarette kits at all prices.

(a) Calculate the new equilibrium price and quantity following the successful advertising campaign and the fall in production costs. Use the last two columns for your working.

(4)

~~Old PP Scores~~

The new equilibrium price is £24 and the new equilibrium quantity is 9000 for both demand and supply. This is an increase from the old equilibrium of £23 for 7000 e-cigarettes demanded and supplied.

Question 2 (a)

Another Theme 1 question. In this question it was clear who knew their PED formula and who did not. Candidates need to practice such key calculations as part of their exam preparation.

2   Between 2010 and 2015 the average price of tea in the UK increased from £7.20 per kilo to £8.48 per kilo. Over the same period the quantity of tea purchased fell from 97 million kilos to 76 million kilos.

(Source: http://www.theguardian.com/lifeandstyle/shortcuts/2015/aug/05/brew-do-you-think-you-are-why-tea-needs-to-copy-coffee-in-order-to-survive)

(a) Assume that the change in the quantity of tea purchased was only caused by the change in the price of tea. Calculate the price elasticity of demand for tea in response to the rise in its price. You are advised to show your working.

(2)

$$PED = \frac{\% \, \Delta \text{ in Quantity Demanded}}{\% \, \Delta \text{ in price}}$$

$$\frac{\text{old} - \text{new}}{\text{old}}$$

97 = 100%

76 = 78.35%

= 21.63

= 2165

$$= \frac{21.65}{£17.7} = 1.217...$$

relatively elastic

Question 2 (b)

In this question it was clear who knew how to calculate revenue and who did not. A number of candidates lost a mark as 'million' was missing from their answer as the unit of measure.

(b) Calculate the change in total sales revenue for UK tea retailers between 2010 and 2015. You are advised to show your working.

(2)

in 2010 : revenue = £7.20 × 97 million = £698.4 mill

in 2015 : revenue = £8.48 × 76 million = £644.48 mill

Change in revenue = 698.4 - 644.48
= £53.92 million
= £53920000

ResultsPlus Examiner Comments

This answer achieves a mark of 2/2.

This candidate achieves full marks for providing the correct answer, being £53.9 million.
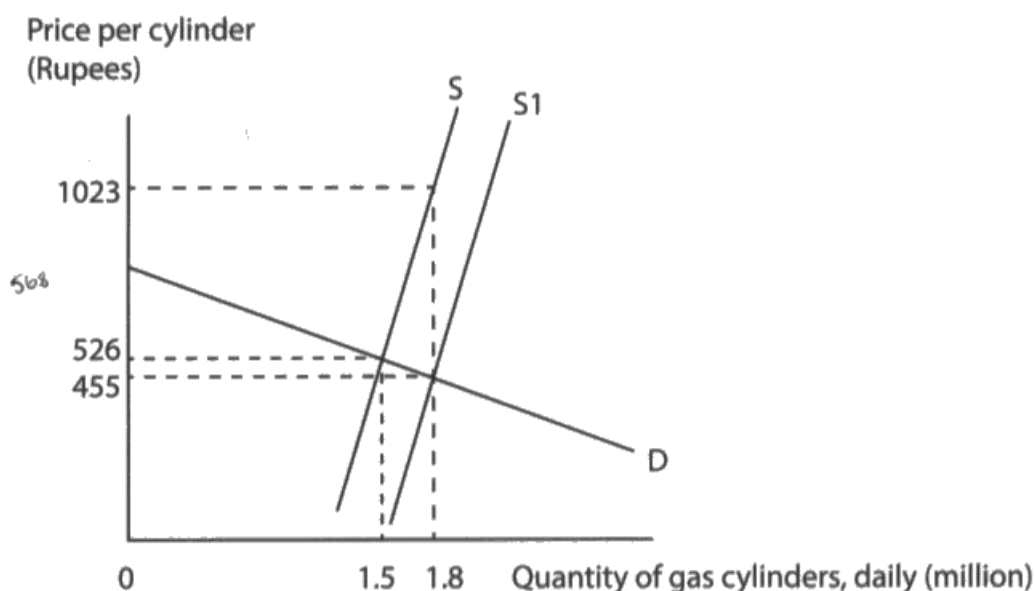
ResultsPlus Examiner Tip

Always ensure you state the correct unit of measurement.

Question 3 (a)

In this question it was clear who knew how to calculate subsidy and who did not. A number of candidates lost a mark as 'million' was missing from their answer as the unit of measure. Candidates need to practice similar subsidy and tax diagrams from Theme 1.

3 The Indian government has introduced a subsidy on domestic cooking gas cylinders in the city of Mumbai. The diagram below shows the effect following the introduction of the subsidy.

(Source: https://www.iocl.com/products/indanegas.aspx and http://indianexpress.com/article/business/business-others/lpg-subsidy-fixed-at-rs-568-price-to-change-after-march/)

(a) Calculate the total domestic cooking gas subsidy paid daily by the Indian government. You are advised to show your working.

(2)

original = 526 × 1 500 000 = 789 000 000

new = 455 × 1 800 000 = 814 000 000

814 000 000 − 789 000 000 = 1 000 000 000 rupees

1023 − 455 = 568

568 × 1·8 million = 1022 400 000 rupees.

Question 3 (b)

Most candidates achieved full marks but a significant number of candidates lost a mark as the answers were transposed incorrectly i.e. they identified consumers as receiving 87.55 and producers 12.5%. Candidates need to practice similar subsidy and tax diagrams from Theme 1.

3   The Indian government has introduced a subsidy on domestic cooking gas cylinders in the city of Mumbai. The diagram below shows the effect following the introduction of the subsidy.

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http://indianexpress.com/article/business/business-others/lpg-
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(a) Calculate the total domestic cooking gas subsidy paid daily by the Indian government. You are advised to show your working.

(2)
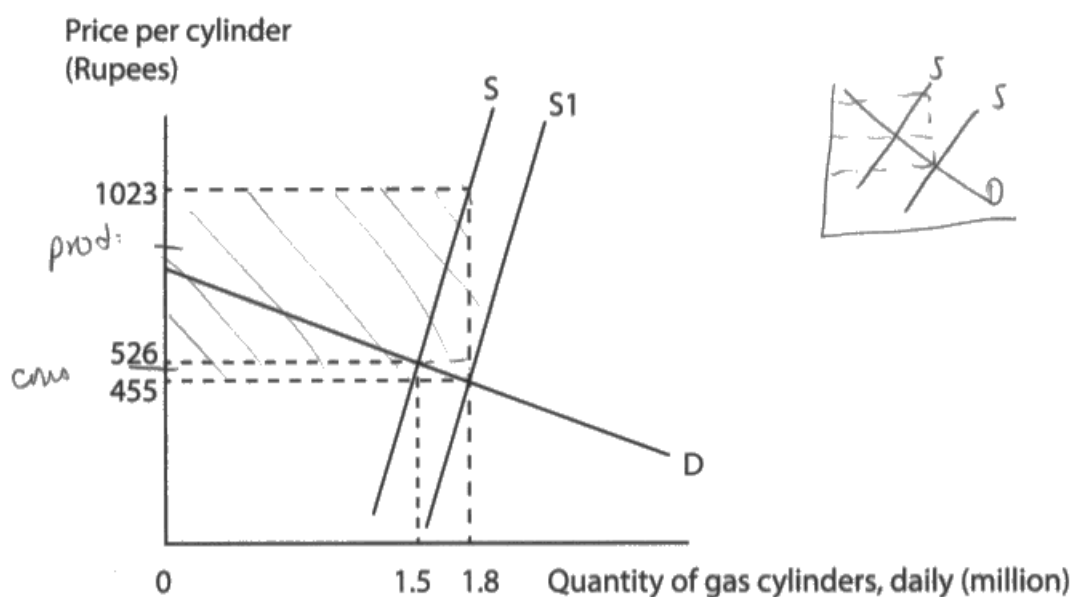
Total domestic cooking gas subsidy = $1.8 \times (1023 - 455)$
= 1022.4 rupees

(b) Calculate the percentage share of the total subsidy received by:

(i) consumers

(1)

consumer receives : $1.8 \times (526 - 455)$

$= 127.8$

percentage share : $\dfrac{127.8}{1022.4} \times 100$

$= 12.5\%$

(ii) producers

(1)

producer receives: $1.8 \times (1023 - 526)$

$= 894.6$

percentage share : $\dfrac{894.6}{1022.4} \times 100$

$= 87.5\%$

Question 4 (a)

This was a straightforward question from Theme 3 that required candidates to fully annotate carefully and correctly. One issue that some candidates faced was incomplete labelling and not carefully identifying the smaller profit/loss box.

4 In 2015 JCB, the construction equipment manufacturer, experienced a 6% fall in revenue. This resulted from a reduction in sales of construction equipment to emerging markets.

(a) Draw a cost and revenue diagram to show the likely impact of a reduction in sales of construction equipment on JCB's profits.

(4)

Area   P1 ABC - previous profit

Area   P2 A² B² C² - new profit

Question 5 (b)

Most candidates were able to clearly define these terms. The main problem when not awarded a mark was a failure to link to output.

(b) Explain the difference between fixed costs and variable costs.

(2)

Fixed costs are costs that have to be paid and do not change as output does for example rent or electricity whereas Variable costs are costs that change as output increases/decreases for example in Starbucks case milk, coffee cups etc these are known as raw materials

ResultsPlus
Examiner Comments

This answer achieves a mark of 2/2.

This is a full answer identifying the difference related to output (2/2) but also providing examples.

Question 5 (c)

Most candidates were able to calculate correctly. The main problem was a failure to indicate the answer as a unit that clearly could be interpreted in pence between 29 and 30.

(c) With reference to Figure 1, calculate the profit (in pence) for a cappuccino drink. You are advised to show your working.

(2)

13% of £2.27 = 29.51 = 30p
(227p)

ResultsPlus
Examiner Comments

This answer achieves a mark of 2/2.

A clear answer is provided.

ResultsPlus
Examiner Tip

It is always advisable to show your working in case of a computational error.

Question 6 (a)

(a) With reference to Figure 1 and Extract A, explain **one** likely reason for the change in the four-firm concentration ratio of the supermarket sector between 2010 and 2015.

(5)

In 2010 the four firm concentration ratios in the market was 76.1%. Since the it has fallen by 3.6% where in 2015 it is now only 72.5%. One reason for such a fall in the concentration ratio is a change in shopping habbits. Previously shoppers would often plan a weekly shop and go to one of the larger supermarkets in order to purchase their goods. This suited the larger firms as they provided a range of goods and competed on availability. However, emerging brands such as Lidl lacked in variety but competed on price. The consumer to habbits have changed from being predominantly a single shop to multiple trips to supermarkets during the week. This increases the importance of price which suits the smaller shops such as Lidl. As a result more consumers are changing to shop at smaller brands reducing the revenue of larger brands, thus reducing their concentration ratio.

ResultsPlus
Examiner Comments

This answer achieves a mark of 5/5.

The candidate starts by calculating the four firm concentration ratio for both years thereby picking up 2 marks for analysis and one for implicit knowledge of concentration ratio. They then go on to provide and explain the reason for the change.
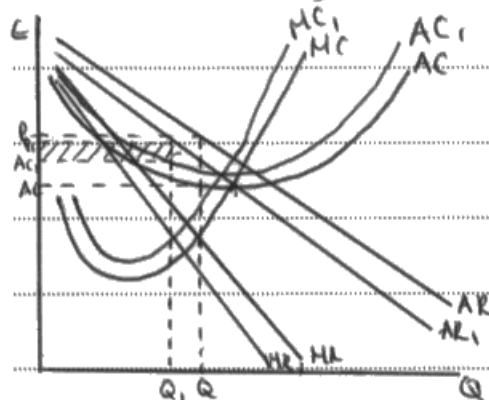
Question 6 (b)

This question demonstrates the importance of candidates carefully reading the question and making sure they understand precisely what is being asked of them. Far too many candidates failed to focus on food suppliers and consumers. Also key with this question was understanding the concept of monopsony, bearing in mind this was in the context of supermarket monopsony power. Low scoring responses either did not understand monopsony or confused it with monopoly and did not go beyond quoting the data. Whilst many candidates were able to use the extracts and data effectively, linking the information provided to specific economic theories would have yielded better rewards. (Dis)economies of scale were generally recognised but a failure to develop answers by referring to specific types weakened a number of arguments. However overall, candidates did well with this item achieving a mean mark of 7.73.

(b) With reference to Figure 2 and Extract A, discuss the possible impact of supermarket monopsony power on both food suppliers and consumers.

(12)

Monopsony power is where a buyer in a market has significant buying or bargaining power in their industry. The GCA is investigating this power, the abuse of this power, with a YouGov poll showing 31% of Tescos' food suppliers claiming they are failing to meet the GCC.

High monopsony power of supermarkets leads to them being able to negotiate lower prices from food suppliers, as they need to minimise their costs to engage in the agressive price wars. However this lower price this "aggressive price-cutting" means falling revenues for food suppliers, causing AR to fall to AR₁. This along with being forced to pay for specific packaging and rising marketing costs has led to rising costs for the food suppliers causing AC to increase to AC₁. Thus has led to shrinking profit margins and therefore falling profits to just the shaded area. Decreased profits will lead to reduced dividends for shareholders, as well as decreased investment. Decreased investment in capital may lead to falling dynamic costs in the long-run

efficiency and rising ~~LRAC~~, which may lead to losses in the future if prices continue to fall and they may be forced to shut-down if prices are less than their variable costs $(P<AVC)$*
However, monopoly food suppliers, e.g. unilever, can act as a counterweight to monopsony power as their control of key brands in supermarket sales can allow them to negotiate more strongly with the supermarkets, so their ~~there~~ revenues

* This is why the number of food suppliers struggling financially has increased 50%.

won't fall as significantly and neither will profits.

By supermarkets having lower costs due to purchasing at lower prices from suppliers, they are able to decrease prices for consumers. This is because the supermarkets are highly interdependent, which has resulted in a price war. This will lead to falling prices for consumers and by 1.7% therefore an increase in consumer surplus. ~~If the supermarkets~~ However as food suppliers are facing falling profits and are investing less the quality of food may fall or there may be less innovation in terms of flavour. The quantity supplied by the food suppliers has also fallen from Q to Q_1, which may lead to shortages. ~~more~~

In order to reduce costs in the long-run, food suppliers could reduce the size of their products, e.g. smaller quantities in jars, in order to reduce costs and improve profit margins, but this will lead to a fall in the quality of good for consumers and falling consumer welfare.

This answer achieves a mark of 12/12.

It achieves Level 3+ (8/8) and Level 2 EV (4e/4e). All reasons are relevant, explained and applied to the context rather than generic.

To get to Level 3 on KAA the candidate has a clear understanding of monopsony, has done both consumers and food suppliers, has applied to the case (and also concentrated on the 'impacts'). Weaker responses focussed on the 'cause' rather than impacts.

Read the question carefully to ensure you meet the full demand of the question and focus on the effects rather than the cause in this case. Ensuring you understand whether the question is asking you to look at the causes or effects/impacts is essential for exam success.

Question 6 (c)

Two correct measures explained in context with either two evaluative comments per measure, or one evaluation point well developed was required here. Weaker responses tended to either only cover one measure, provide one relevant measure and one non-relevant measure or did not provide evaluation. Minimum price schemes were used effectively as methods to restrict monopsony power with many candidates developing their arguments as to how this would benefit suppliers and evaluating why such schemes effectiveness may be limited. Additionally, regulatory measures usually linked to fines or mergers of suppliers or de-mergers/blocked mergers of supermarkets were well argued. A common error was to provide a subsidy – this was often a confused response lacking in relevance.

(c) Examine measures the government might use to restrict the monopsony power of supermarkets.

(8)

One method the government could use to restrict monopsony power is regulation. The CCA has the power to fine firms 1% of their total annual revenue for abusing their monopsony power. This would act as a deterrent and may result in an increase of the welfare of the food suppliers.

However this relies upon food suppliers reporting it. Many do not out of fear of losing their contract. Therefore regulation may not be effective.

Another method the government could use is a minimum price scheme. By setting a price of P_1 above the market equilibrium these legally prevent monopsonistic supermarkets forcing food suppliers to accept lower prices. As a result output increases
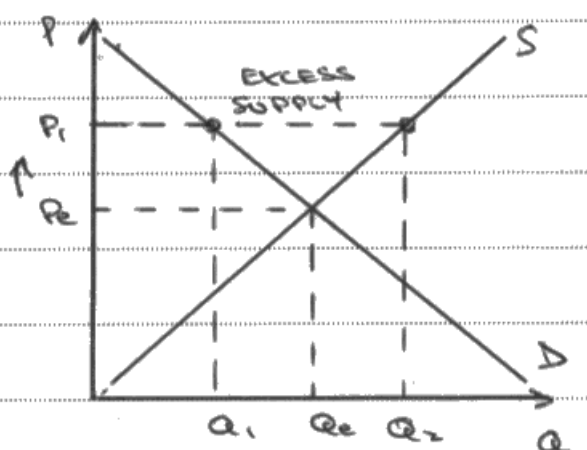
and profits increase for suppliers.

However this may create unemployment. Excess supply at $Q_1 \rightarrow Q_2$ is created which means that for many suppliers their produce wouldn't be bought and their profits would fall

Question 6 (d)

This question proved to be a challenge. Information gaps were not well explained and irrational behaviour beyond habitual shopping habits was badly explained. A lack of understanding of irrational behaviour meant that many candidates failed to secure high marks as did an over-reliance on aspects of the text without explaining or considering whether these were truly examples of information gaps. Many candidates picked up marks by exploring other causes of food waste that they were more able to explain like substandard packaging. They also picked up marks for considering the future with better technology and forecasting.

(d) Assess the extent to which 'information gaps' (Extract B, lines 5 and 6) and 'irrational behaviour' (Extract B, line 11) are the main causes of food waste in the UK.

(10)

supermarkets in the UK are responsible for around 0.2 million tonnes of food waste a year. Info information gaps occur where the two parties have unequal unbalanced information, and in the case of the food industry this 'information gap' between suppliers and retailers is resulting in 4.1 million tonnes of waste. This is because suppliers have more information on the quantity they have supplied than supermarkets and supermarkets have more information on the quantity they demand. This asymetric information has led to suppliers over-producing/over-supplying resulting in waste as supermarkets only purchase a fixed quantity. An information gap on the storage and transportation of the food, due to the complexity of the administrative process, will also have led to food waste as food expires if stored for too long or not transported correctly, e.g. in refridgerated vehicles. However supermarkets and suppliers are co-operating to decrease waste and it still exists. This could be because of other issues such as the issue of supermarkets only accepting certain specifications of food. This results in high-levels of waste, such as the throwing away of 'misshapen vegetables'.

don't know what to cook with leftovers so don't use them. Health scares in the media on 'gone-off' food also lead to consumers throwing away useable food, this has led to packaging development to keep food fresher for longer reducing waste. consumers also often irrationally overbuy food, in fearing they will run out which results in waste when it isn't all used.

However, supermarkets are also responsible for around 0.2 million tonnes of waste, due to strict use-by-dates and stock mishandling, which could easily be overcome and the left-over food which is perfectly safe to eat could be donated to homeless shelters or even used as animal feed. Food is also wasted as it isn't properly recycled, as fruit, and vegetables should be used for compost, or animal feed rather than entering landfill, which if improved would drastically reduce food waste at all levels of the supply chain.

Question 6 (e)

This question clearly differentiated between the candidate that understood the theoretical problems of mergers in context, with a coherent chain of reasoning and responses which were theoretically light. Full marks were not always accessed when the answer did not consider carefully the context of the question and data available. Candidates who focused on the question and provided 'problems for Sainsbury's and Morrisons' rather than to other agents achieved much higher scores and were generally able to develop these using the context and wider knowledge of issues of oligopolistic mergers effectively. The mean mark was 8.65.

(e) Discuss the likely problems for Sainsbury's and Morrisons if the suggested merger between them goes ahead. Refer to Figure 1, Extract C and your own knowledge in your answer.

(15)

This is horizontal integration - two firms at the same stage of production in the same industry. One issue could be a lack of synergy leading to diseconomies of scale. Extract C refers to the difficulty of co-ordinating hundreds of thousands of workers, implying that there may be issues in communication. This could cause long run average costs to rise beyond the minimum efficient scale, representing a fall in productive efficiency. According to Forbes, 83% of mergers fail in this manner, where synergies are often imagined but fail to materialise in practice.
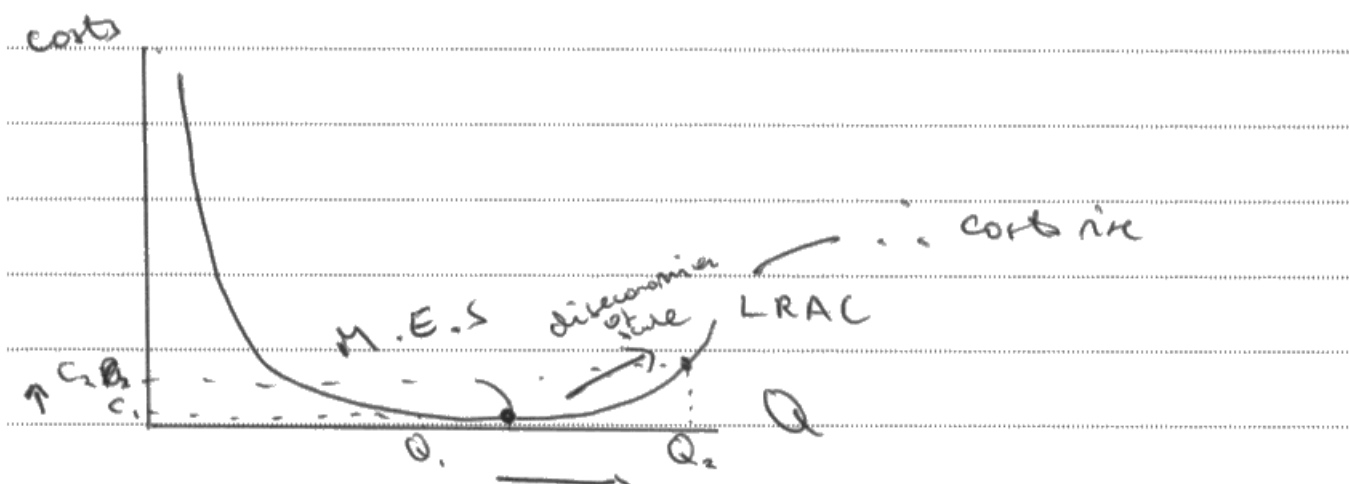
However, to evaluate this, Société Générale does believe some economies of scale could be generated — perhaps financial economies, for example, allowing the merged firm to access credit at lower interest rates. Thus, while there will be some communication difficulties, these may be outweighed by the financial economies of scale, which could lower costs and enable the firm to pass on lower prices to compete in the current price war.

A second problem may be excessive risk arising from over-exposure to the supermarket industry. Food prices have fallen by 1.7% over the last 2 years as Aldi and Lidl continue to gain market share by undercutting others; Tesco has had to issue profit warnings. The resulting merged firm is essentially putting 'all of its eggs in one basket' — in this case the supermarket industry where profits are falling. Thus, this can be viewed as a risky move, since any further deterioration in market trends could mean losses for the firm, with few options to cross-subsidise these losses since it is so heavily focused on this supermarket industry.

However, in evaluation, the merger may

actually enable the survival of Sainsbury's and Morrisons in the industry. The merged firm would control 27.4% of the industry, enabling it to increase monopsony power and be better prepared for a continuation of the price war with larger combined cash reserves. On its own, Morrisons may have struggled in the longer-term. Thus Moreover, the supermarket industry as a whole has fairly constant demand, meaning it is not as risky to be involved in the long term as other markets such as oil.

Question 7

Responses generally focused on a number of relevant microeconomic issues effectively and broke down the various impacts on different agents to provide effective analysis of a range of microeconomic effects. High scoring responses were well structured and at times provided clear evidence of planning. They made effective use of Theme 1 and Theme 3 theory, going beyond the mostly Theme 1 theory of lower scoring candidates. Diagrammatic analysis is not required but when done well was accurate, well labelled and well explained with a solid chain of reasoning. Candidates at the top end used supply and demand diagrams to consider the tax burden or welfare effects and many candidates used theory of the firm diagrams eloquently to explore the cost and revenue implications. In addition candidates who recognised a negative consumption externality and were able to provide a correct diagram provided well developed responses.

Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.
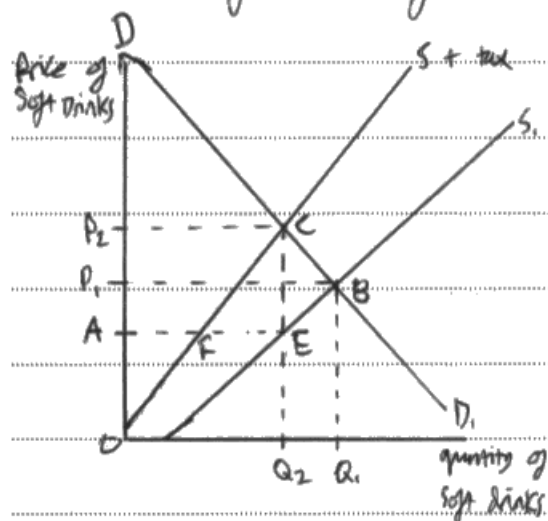
Chosen question number: **Question 7** ☒   **Question 8** ☒ regressive
conflict
foreign
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Write your answer here:

An indirect tax is a tax on expenditure. The fact that the proposed tax is 20% on the sale of soft drinks shows that it is an ad valorem tax - a tax levied as a % of the value of the good.

The imposition of an ad valorem tax per unit of soft drink of P₂A will lead to an upward shift of the supply curve from S₁ to S+tax. The price paid by consumers will increase from P₁ to P₂ and the quantity of soft drinks consumed will fall from Q₁ to Q2. Consumer Surplus, the difference between what consumers are willing to pay and what they actually pay, will fall from the area DP₁B to DP₂C. Producer will now receive a price of A, as opposed to the price P₁ before the tax. This will cause producer surplus to fall from the area OBP₁ to

OAF. As well as this, producers' revenue will fall from the area OQ_1BP_1 to OQ_2EA. The government will earn a tax revenue of the area P_2AEC.

As shown, consumers will ~~pass on~~ have to pay a higher price for soft drinks and their consumer surplus will fall. As well as this, poorer consumers will lose out even more because indirect taxes are regressive. This is because they take up a larger proportion of a poorer person's income than a richer person's income. However, soft drinks are bad for consumer's health since they contain a lot of sugar. ~~the~~ Because of this, the reduction in consumption caused by the tax could be beneficial for consumers as they may have to spend less on healthcare in the future. Also, the extent to which consumer's are affected by a price increase depends on the price elasticity of demand for soft drinks. If demand is price elastic the producer will absorb most of the subsidy, ~~then~~ because if they passed on the price increase then the quantity demanded would fall by a larger proportion, causing their revenue to fall. Therefore if demand is price elastic, consumers won't be badly affected by the tax.

For the government, they will receive tax revenue as shown by the diagram. This tax revenue can be ringfenced and only used for socially beneficial products, which would increase

society's welfare. As "well" as this, the government will benefit from not having to spend as much on healthcare in the future. This is because soft drinks cause many illnesses so a reduction in the quantity consumed of them will reduce the amount of cases of illness like diabetes, which decreases the amount the government will have to spend on healthcare.

However, the imposition of an indirect tax could have unintended consequences. Black markets could be set up where producers and consumers don't pay tax, resulting in a loss of tax revenue for the government. As well as this, consumers may switch to foreign markets to buy their soft drinks, again decreasing tax revenue.

Also, the government uses taxes to raise finance to fund government expenditure. This can cause policy conflicts. For example the government may want to raise as much tax revenue as possible to fund to education spending, but putting too high taxes on soft drinks may cause producers to relocate, decreasing tax revenue.

The imposition of an indirect tax on soft drinks will effectively raise the costs for firms, as shown in the diagram by supply shifting up. This increase in costs will cause a fall in producer profits. If the tax is too high, the increase in costs may cause producer to go out of business, leading to a lack of choice. However, the extent to which

producers' costs are affected depends on the price elasticity of demand for soft drinks. If demand is price inelastic, producers can shift the majority of the price tax onto consumer since the quantity demanded won't fall significantly. This will allow producers to maintain their profits.

Question 8

Diagrams for this were clear as was the concept but beyond the argument that shareholders expect MC=MR because they want dividends and managers want MR=0 because performance bonuses are often linked to turnover, the candidates struggled to think of reasons. Stronger candidates examined the idea that MR=MC was quite hard to calculate and the shareholders wouldn't really have a clue given their proximity to the daily operation and inside workings of a business. Effective evaluation often went on to be critical of revenue maximisation along the lines indicated in the mark scheme as well as the principal-agent problem. There was clear differentiation in approach from confused diagrams to fully labelled and annotated diagrams. Candidates struggled to develop chains of reasoning which explained why one objective might be more suitable for firms in a specific industry. The lack of effective application to an industry led to a number of responses failing to develop arguments and to build on a technical understanding of the conditions for the two different objectives.

Indicate which question you are answering by marking a cross in the box ⊠. If you change your mind, put a line through the box ⊠ and then indicate your new question with a cross ⊠.

Chosen question number: **Question 7** ⊠   **Question 8** ⊠

Write your answer here:
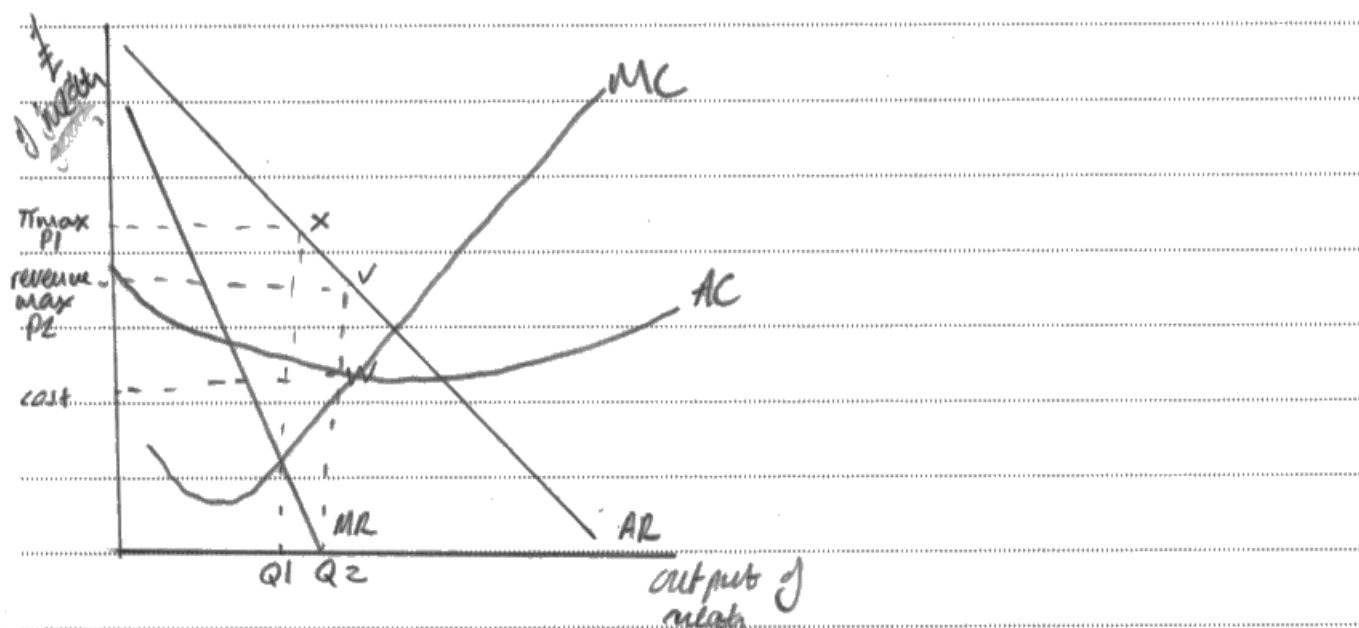
Revenue maximisation is achieved at the output MR=0 and is the output that gives the supermarket the largest total revenue.

One reason revenue maximisation is often a more realistic goal than profit maximisation, is that it can be a useful tool

for increasing market share. Walmart is notorious for producing at $MR=0$, using the additional revenue gained to set up more shops across America. The additional revenue gained from $MR=0$ (instead of $MC=MR$) essentially acts as capital for supermarkets to reinvest and grow. If walmart uses this capital to open 3 new supermarkets, it will also gain economies of scale: assuming its doesn't employ another regional manager, they benefit from managerial economies of scale as the new shops pose no additional ~~regional~~ managerial jobs. ~~However~~ This reduces the cost per unit of food, making the supermarket more competitive by giving them the capacity to reduce prices. However, this might not work as supermarkets operate in an oligopolistic market: gleaning economies of scale from reinvested capital earned by revenue maximizing may result in price wars, with all the supermarkets competitors lowering prices, resulting in a loss of revenue for all the businesses.

In contrast, it is arguable that profit maximisation is a more realistic business aim. As the diagram shows, π maximisation results in the highest amount of supernormal profit for the supermarket, returning: the area P.Tmax.Cost.W.X in supernormal profit. Because of this, it is clear that supermarkets would pursue this strategy: higher profits will keep the shareholders happy and increase the value of the supermarket shares. This lowers the risk of the supermarket being acquired by a competitor due to a cheap share price. However, the π principle

agent problem dictates that profit maximisation is unlikely to be achieved. The managers (agents) at Tesco are likely to profit satisfice; they understand they need to produce a reasonable level of profit to keep the principle (shareholders) happy, but will then pursue other objectives such as increasing their happiness by playing golf on a wednesday afternoon instead of working on pricing strategies. The tendency of managers to satisfice detracts from the likelihood of profit maximisation occuring, by making it a debatebly, unrealistic business objective.

Another reason that revenue maximisation can be viewed as the most realistic business objective for supermarkets is because it provides the largest incentive for high-level managerial staff. As previously mentioned, the divorce of ownership dictates managers pursue their own objectives. There is a tendancy for larger supermarkets to set bonuses based on revenue performance, providing the manager with a large monetary incentive to sell products at P2, where $MR = 0$. If the manager has a larger incentive to revenue maxim then he is likely to become of more productive, lowering the costs per unit of food sold by providing the supermarket with a more efficient service for the same basic wage. If the costs per unit decrease, then the supermarket is more competitive and — given the limited demand facing supermarket — makes more profit due to a fall in costs ($T\pi = TR - TC$). However, revenue maximisation only effective if reducing the price of food goods will result in a noticeable change in demand. The inertia

and 30% off deals means that a decrease in price may not be registered, rendering it useless and resulting in a loss of revenue. Furthermore, supermarkets have a reasonable degree of brand loyalty: a general fall in price at Tesco by 1% is unlikely to attract demand from Waitrose shoppers. Because of this, revenue maximisation has the potential not to work, as consumers may not be aware of the price drop or may simply remain loyal to their supermarket of choice.

In conclusion, revenue maximisation is not the most effective business strategy for supermarkets. Given the high degree of interdependence of one upon another, a decrease in price to P2 from P1 is not likely to result in an increase of revenue as competitors will engage in a price war as consumers will largely remain loyal to their preferred supermarket. Profit maximisation is a preferred strategy as it returns the largest amount of supernormal profit, keeping the shareholders happy. However, P=MC=MR should be pursued with the knowledge managers are likely to satisfice, so as not to provide false expectation from shareholders.