RVHS Y6 H2 Prelim II Suggested Answer – CSQ 1

(a) With reference to Table 1, compare the change in market value of the different UK food retailers between 2018 and 2023. [2]

- All food retailers are expected to see an increase in market value [1], with the market value of online retailers and discounters expected to increase by a larger magnitude compared to that of hypermarkets and supermarkets [1].

(b) Using a relevant elasticity concept, explain why "Aldi has sought to open hundreds of new shops" during the recession. [2]

- Aldi is a budget supermarket which sells mainly sells canned food and value-for money products [0.5]. During the recession where income is falling, there will be a rise in demand for Aldi's products [0.5] since they are perceived to be inferior goods (YED < 0) [0.5] compared to its rivals. As such, Aldi opened up more stores to cope with the expected rise in demand for its products, which may possibly lead to a rise in their total revenue [0.5].

(c) Explain how "peak time" pricing qualifies as a form of price discrimination. [4]

- Price discrimination is defined as charging different consumers different prices for the same product not due to cost differences. Under the "peak time" pricing, price of items rise when demand is high and fall when demand is low.

- This is a form of 3rd degree price discrimination as it satisfy all the 3 conditions needed for price discrimination to be carried out [0.5].

- The different prices are not due to cost differences. This is because no matter the time that the product is being sold, the cost incurred by the supermarket such as labour costs, rental, and utilities is the same [1].

- The supermarket owners are able to segment the market according to their PED whereby during peak time, the demand for certain items tend to be higher and more price inelastic compared to off-peak. For example, there is a lack of close substitutes for chilled food and drink items during heatwaves [1.5].

- As the supermarkets operate in an oligopoly, each firm has the ability to set prices due to the market power which they possess [0.5].

- Furthermore, as items such as ice-cream, ready-to-eat sushi, and yogurt have a very specific shelf-life or best-before-date beyond which they lose their freshness, consumers who bought them at a lower price cannot successfully resell these items to other consumers for consumption at a later time. Supermarkets are thus able to prevent resale of such perishable items by the consumer [0.5].

  Note to marker: Identify as 3rd degree price discrimination (0.5m), the rest of the marks (3.5m), can be flexible in how you want to allocate amongst the explanations of the 3 conditions. For e.g., if student did not explain 2nd condition that well to score 1.5m, can allow for the marks to be channeled to another condition if he is able to explain this condition well.

(d) Extract 3 mentions about the merger between Asda and Sainsbury. Explain how this might affect consumer welfare. [4]

Positive impact on consumer welfare

i. Given fewer retailers in the market and the possibility of Sainsbury-Asda accounting for a sizeable '60% of the market in the future', the merger between Sainsbury and Asda may result in the merged firm operating on an even larger scale. Thus, there is a potential for even greater economies of scale (EOS) to be reaped [0.5]. Provided Sainsbury-Asda passes on the cost-savings to consumers [0.5], this could translate into lower prices for consumers [0.5], thereby increasing consumer surplus and thus, increasing consumer welfare [0.5].

ii. With the merger and resulting larger market share, the firm may enjoy more profits [0.5]. If the firm chooses to plough back some profits to carry out research and development (R&D) or to innovate [0.5], for example, coming up with better products, automating production processes to improve productivity etc., this may translate either to lower prices or better-quality products, thereby offering consumers more choices [0.5]. If so, this improves consumer welfare [0.5].

Negative impact on consumer welfare

i. The merger between Sainsbury and Asda will likely reduce the degree of competition in the market [0.5]. With the resulting larger market share, the firm has greater market power [0.5] to dictate prices or restrict output to keep prices at a certain level [0.5]. If this leads to higher prices or artificially restricted quantity of goods/ services, then consumer welfare will be adversely affected [0.5].

ii. Alternatively, the reduction in competition amongst firms [0.5] may cause the firm to be less committed to keeping costs under control or do less R&D than desired [0.5]. If this leads to higher prices or lack of improvement of service/ product quality [0.5], then consumer welfare will be adversely affected [0.5].

Note to marker: Student may explain one positive AND one negative impact on consumer welfare OR student may explain two positive impacts on consumer welfare OR student may explain two negative impacts on consumer welfare. Award 2 marks each.

(e) While supermarkets such as Sainsbury have invested heavily in their online business, discounters such as Aldi have chosen to ignore it.

Discuss whether Aldi should follow the example of Sainsbury and venture online. [8]

Whether Aldi should follow the example of Sainsbury and venture online depends on whether the benefits of venturing online outweighs the costs incurred.

Thesis: Yes, Aldi should follow Sainsbury and venture online

Venturing online will enable Aldi to increase its total revenue due to the rising demand for online grocery shopping. As seen from Extract 5, "online grocery sales have skyrocketed, with the United Kingdom forecasted to become the second largest online grocery market worldwide". Due to the rising "convenience and speed" of online grocery shopping, there is a change in taste and preference of consumers towards online grocery shopping. Venturing online will allow Aldi to tap on more consumers, possibly increasing their total revenue and hence profits, assuming no change in cost. Furthermore, Extract 5 highlighted that number of online grocery retailers has increased so with these new firms entering the market to compete for market share, it seems more of a necessity rather than by choice that Aldi has to venture online to better capture more consumers or to at least protect their market share.

Venturing online will also possibly enable Aldi to lower its average cost due its ability to reap greater internal economies of scale. As a retailer of groceries, Aldi will be able to buy the groceries from the manufacturers at a larger scale (to cater to both physical and online stores), giving them stronger bargaining power and hence obtaining the groceries at a greater discount. The lowering of average cost, assuming no change in revenue, will increase profits for Aldi.

Anti-thesis: No, Aldi should not follow Sainsbury and venture online

As seen from Extract 4, “Tesco, Sainsbury and others have spent hundreds of millions of pounds on sophisticated internet operations” and that “profit margins in the supermarket business are notoriously low, but even lower online”. Venturing online requires substantial cost outlay e.g. cost of setting up online platform, maintaining it as well as owning a fleet of vans for delivery as seen from Extract 4. If Aldi cannot recover these back in the form of higher total revenue, their profits may fall. In addition, the increase in total revenue from online sales may not be significant, judging from Extract 4 which states that online sales may cannibalize sales at physical stores. This could simply be a case where total revenue earned from one area is simply transferred to another, resulting in no additional net increase in total revenue at all.

However in the long run due to advancement in technology, cost of venturing online can be lowered and Aldi would be able to make use of the cheaper technology to provide online platforms for consumers too. This can make venturing online more profitable for Aldi.

Furthermore Aldi’s has been recognised as a discounter, they need to keep cost low and continue to promote itself as a budget supermarket to the consumers. Maintaining both online and physical stores may be too costly which may end up causing them to have to raise the price of their goods in order to earn sufficient profits. This can cause Aldi to lose its ability to maintain as a budget supermarket.

Besides going online, Extract 4 has also highlighted that Aldi has adopted other ways to attract more consumers e.g. focusing on quality so that they can tap on the middle class shoppers and revamping physical stores to attract more consumers. Thus Aldi need not necessarily tap on the online shoppers.

Despite being grocery retailers, these two firms have different business models which means Aldi may not necessarily find it profitable to follow Sainsbury and go online especially when their target clientele is different. Ultimately, Aldi will need to assess its benefits and costs of venturing online and only proceed if the benefits outweighs the costs.

Projecting into the future, however, this may be an inevitable path to take because the number of online shoppers is set to rise due to advancement in technology and consumers being more IT savvy compared to the past with many of them owning smartphones. Coupled with the increase in available functions and increased ease of use of online platforms, growth of online grocery industry can be expected.

Marking Scheme

Level	Description	Marks
L2	For a developed discussion of the benefits and costs of venturing online for Aldi.	4-6
L1		1-3

	For an undeveloped discussion of the benefits and costs of venturing online for Aldi. OR For a developed explanation of the benefits or costs of venturing online for Aldi.	

A further 2 marks is awarded to evaluative comment which considers the nature of business for Aldi versus that of Sainsbury and projected developments in the online grocery industry.

(f) In view of the market structure of the UK supermarket industry, discuss why non-price competition strategies are preferred over price competition strategies. [10]

Introduction – Identify correct market structure and justify [1m]

The different supermarket firms, Sainsbury, Tesco, Aldi and Lidl each control a significant portion of the market, thus, it can be said that they operate in an oligopoly. This is evident from Extract 1, where it states that the retailers are part of the "big four" supermarkets. Extract 3 also states that the supermarkets each control about 30% of the market share. In an oligopoly, the decisions of one firm affects its competitors, leading to mutual interdependence and rival consciousness.

Explain why price competition is NOT preferred. [3m]

As mentioned in Extract 1, price competition only leads firms to suffer a loss of profits,especially if undertaken for an excessive period of time. For example, when Aldi tried to undercut the prices of the big four supermarkets to obtain a greater market share, it is likely that the other firms would follow suit to some extent. This is because if they do not do so, they may lose a significant share of the market as consumers switch over to consuming products from Aldi. In this case, although, due to the law of demand, there may be a rise in quantity demanded for Aldi's products. However, the increase may be less than proportionate due to the retaliatory actions from its rivals, thus, total revenue will not increase, instead, it would fall.

Conversely, if Aldi were to raise prices, other firms will not follow. This means that the firm may suffer a more than proportionate fall in quantity demanded, leading to a fall in total revenue. Taken together, this means that there is no incentive for firms to raise or lower prices to bring about a rise in total revenue. Thus, price competition is not preferred – prices may be rigid in such a market structure.

Moreover, there is a limit to how low prices can go as each firm must price above average cost to avoid earning subnormal profits. In the short run, the firms may reduce prices below average cost as part of a price competition strategy, but it will be unsustainable in the long run, especially so if the firms do not have sufficient financial reserves.

That being said, some firms may resort to price competition once in a while, as part of promotional gimmicks or only for certain items which they feel may have a relatively more price elastic demand. Price competition in such situations may seem acceptable as the firm may enjoy temporary increase in quantity demanded and possibly total revenue. During these times, other firms are recommended not to undercut each other, but instead, wait it out before they make changes to their pricing.

Explain why non-price competition is preferred. [3m]

Thus, oligopolists tend to prefer non-price competition. Non-price competition offers an avenue for the firms to differentiate themselves from their rivals, increasing their market power and increasing their ability to increase prices without a substantial fall in quantity demanded. This is because with an increase in product differentiation, consumers will be less likely to switch to rival firms with an increase in price. This can be done through enhancing the shopping experience as attempted by Aldi in Extract 4, where they revamped their stores. This is a form of product development, the product being the retail experience, where Aldi sought to reinvent the layout of the stores. This will make the demand for its products more price inelastic.

Similarly, the strategy by supermarkets to offer online shopping is also a form of non-price competition which increases the convenience for consumers. In Extract 5, it can be seen that more and more consumers are completing their shopping on their smartphones and tablets. It also helps the firm to reach out to more consumers, consumers that would avoid retail shopping altogether and only do online shopping. This would lead to an increase in demand. These strategies would enable the firm to increase prices without suffering a fall in total revenue.

Evaluation and Synthesis [3m]

Essentially, price competition is a lose-lose situation. Price wars can be very costly for all producers involved, and usually when prices are lowered, consumers would expect them to stay low, leaving little opportunity for producers to regain profit in the long run.

On the other hand, non-price competition may bring about innovation and additional consumer choice, leading to a net increase in societal welfare. Firms have more options to choose from when pursuing non-price competition. In the case of supermarkets, the extracts have shown them trying ideas such as revamping their stores, changing the product offerings and even offering online shopping and delivery.

Ultimately the firm should consider the costs and benefits of each strategy before embarking on it, and although non-price competition is preferred, its costs and benefits are likely to be harder to estimate.

Level	Description	Marks
L2	For a developed explanation of the reasons for price and non-price competition strategies amongst firms in the supermarket industry as well as identifying the industry as a oligopoly.	5-7
L1	For a developed explanation of the reasons for either price or non-price competition strategies amongst firms in the supermarket industry OR For an undeveloped explanation of the reasons for price and non-price competition strategies amongst firms in the supermarket industry.	1-4
Level	**Evaluation**	**Marks**
E2	For an evaluative comment on the reasons for the differing strategies based on contextual evidence.	2
E1	For an evaluative judgement on the reasons for the differing strategies.	1

RVHS Y6 H2 Prelim II Suggested Answer – CSQ 2

a. Define productivity. [1]

- Productivity is defined as the output per unit of input.

b. (i) Compare the UK's productivity with that of the other countries between 2007 and 2016. [1]

- G7 excluding the UK's productivity growth is higher than that of the UK.

b. (ii) Using Extract 1, account for the difference observed above. [4]

<u>Restriction of credit</u>
According to Extract 1, "the near collapse of the banks restricted the supply of credit to companies." The fall in availability of credit would decrease the ability of firms to make productivity enhancing investments such as investment in labour-saving machinery which can save labour hours and producing more output with less man hours/ factor input (labour).

<u>Expansion of low-level service jobs</u>
"The rapid expansion of mainly low-level service jobs" will limit productivity gains in two ways. Firstly, the nature of these jobs leaves little room for firms to adopt technology and machinery to raise productivity.

<u>Restriction on working hours</u>
"Restrictions on working hours and widespread industrial pay bargaining" in France and Germany make hiring workers more costly than in the UK. This incentivises French and German firms to invest in labour-saving machinery to reduce cost of production in the long run. On the other hand, UK with less costly labour may not be incentivised to switch to capital-intensive production methods. Therefore, France and Germany will benefit from productivity gains due to the use of capital-intensive production methods.

Mark Scheme: Any 2 reasons

c. Explain the factors which are likely to determine the extent of gains in price competitiveness from a cheaper pound. [6]

The depreciation of the sterling causes exports to be relatively cheaper in foreign currencies and imports to be relatively more expensive in sterling. This makes UK exports more price competitive in global markets.

Factors that determine the extent of gains in price competitiveness:
<u>Extent of fall in pound</u>
The extent of gains in price competitiveness from a depreciation depends on the extent of the fall in pound. According to extract 2, "experts warned that the pound will be pushed lower over the coming months as traders remain jittery." Since investors are "worried about the UK's economic prospects if it leaves the EU", they are more reluctant to hold sterling-denominated assets for the next few months due to uncertainty. This causes demand for pound to fall further, causing the currency to depreciate further against other currencies like the USD.

<u>'Proportion of import content</u>
The extent of gains in price competitiveness from a depreciation of the pound depends on the proportion of imported content in UK-made goods. Since "firms are exporters and importers" as they may not be able to own/ have control over essential FOP in their production, they have to import raw materials from other countries. Due to the depreciation of the pound, it pushes up the

prices of imported raw materials, raising the cost of production for domestic made goods (i.e. UK's exports).

d. With reference to Extract 3, discuss the possible policy options which UK can undertake in order to increase her competitiveness after Brexit. [8]

Trade policies

Extract 3 mentioned that leaving the bloc could increase trade barriers that would raise costs for business and consumers and hence this may hurt competitiveness in UK. As such, UK should consider signing more free trade agreements with other countries. By having these trade agreements, this allows the producers in UK to have access to expanding global markets which therefore allows them to enjoy economies of scale. In addition, by adopting freer trade, this will allow UK producers to import raw materials at lower cost due to the elimination or reduction in tariffs. These reductions in the cost of production can be passed on to consumers in the form of lower prices, hence increasing the competitiveness level in the country.

Supply-side policy

The extract also mentioned that the vote to leave the European Union will diminish UK's ability to attract and retain top talent.

Talents are essence to increase level of competitiveness in the country because they can increase productivity of labour which can decrease average cost of production. Again, these reductions in the cost of production can be passed on to consumers in the form of lower prices, hence increasing the competitiveness level in the country. At the same time, talents will have the skills to tap on research and innovation to produce better quality products. As such, UK can consider decreasing personal income tax so as to increase the attractiveness for the foreign talents to work in UK since disposable income increases. These foreign talents will complement the domestic workers by bringing along relevant skills to create new industries and job opportunities and they will also help to facilitate the transfer of skills to the locals. Therefore, as explained in the above, the increase in the pool of foreign talents will lead to an increase in price competitiveness. However, such tax cuts cannot guarantee that these foreign talents will be attracted to UK to work since there are also other factors such as cost of living to be taken into consideration.

Alternatively, UK can also invest in human capital domestically by implementing policies pertaining to education and training to expand the quantity of employable worker which also helped to increase labour mobility. Specific measures can include the setting up of retraining programmes for lower skilled workers who have been displaced by technology to obtain skills in greater demand; assisting the lower skilled workers to pursue training and education through grants or low interest loans and providing grants to firms that offer on-the-job training. However, these investments in human capital have a relatively long gestation period and may not always bring about positive outcomes. Moreover, the effectiveness of this policy largely depends on whether the UK government has the means to fund these training programmes.

Level	Description	Marks
L2	For a developed answer that explains 2 policies which UK can undertake in order to increase her competitiveness after Brexit.	4-6
L1	For a developed answer that explains 1 policy which UK can undertake in order to increase her competitiveness after Brexit. Or For an undeveloped answer that explains 2 policies UK can undertake in order to increase her competitiveness after Brexit.	1-3

	Evaluation	
E2	Developed judgment that is supported with economic analysis.	2
E1	Unexplained judgment.	1

e. Assess whether the gains from the Fourth Industrial Revolution would outweigh the losses. [10]

The fourth industrial revolution is a period of technological innovation and digital revolution. While the fourth industrial revolution can bring about benefits, it also bring about losses. Whether the gains would outweigh the losses depends on the cost-benefit analysis.

<u>Gains from 4th IR:</u>

- The adoption of new technologies will enable production to be more efficient and cost effective (Extract 4: labour-intensive firms should be able to boost profit margins as they substitute costly workers for cheaper robots or intelligent software) and in return, unit cost of production will fall which leads to an increase in short run aggregate supply from $SRAS_0$ to $SRAS_1$. As shown in Figure 1. This will lead to an increase in national income from Y_0 to Y_1, bringing about actual growth, and a decrease in general price level from P_0 to P_1.

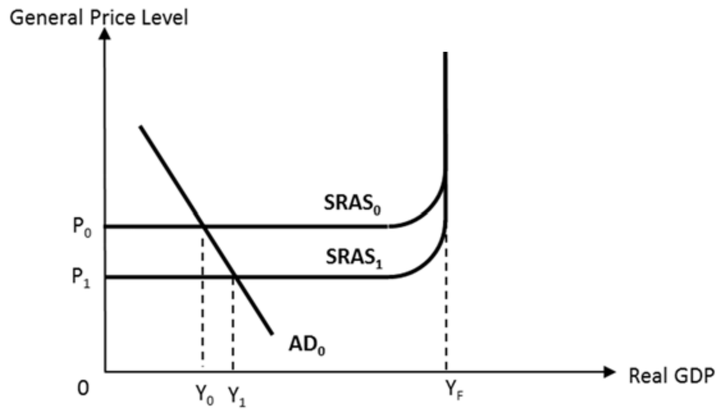

Figure 1

- Price competitiveness of exports will increase since price of domestically produced goods and services are cheaper now. Assuming that the demand for export is price elastic, export revenue will rise. If these new technologies also leads to the improvement of the quality of products, this will increase non-price competitiveness thereby increase the demand for exports of the country and export revenue will rise further. The increases in export revenue will also bring about improvements to the current account, leading to a more favourable BOP position.

- The increases in export revenue will increase AD and at the same time, LRAS will increase from $LRAS_0$ to $LRAS_1$ since the adoption of new technologies will lead to accumulation of new capital which increases the productive capacity of the economy. This will bring about sustained growth as national income increases from Y_0 to Y_1 and price level fell from P_0 to P_1 as shown in Figure 2.

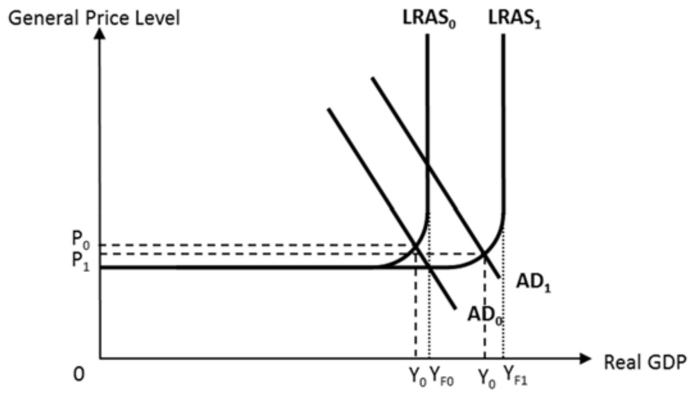

Figure 2

<u>Losses from 4th IR</u>

- However, the Fourth Industrial Revolution can create greater inequality. The low skilled workers who managed to retain their jobs will earn lower wages than before as automation substitutes technology for human labour, demand for low skilled workers will decrease, causing a downward pressure on wages. On the other hand, demand for high skilled workers increase and they will see a large increase in their wages. This widens the income gap between these two groups of workers, thereby creating more income inequity in the country as the rich can consume more while the poor will consume less with lesser dollar votes.

- Fourth Industrial Revolution can create structural unemployment. As seen in Extract 4, “clerical work, such as customer service, being replaced by artificial intelligence.” This implies that automation substitutes technology for human labour (i.e. low-skilled workers). These workers will be made structurally unemployed as they will be unable to find similar jobs elsewhere and are also unable to move into the new industries with the mismatch of skills.

- Developed countries such as the US have offshored operations to the emerging markets to leverage on their cost advantages (i.e. cheap labour). However, the emergence of new technologies brought forth by the fourth industrial revolution have “reduced the competitive advantage” of cheap labour in emerging markets. As such, emerging markets may gradually lose their competitiveness in the production of labour-intensive goods, some firms may be forced to shut down. If so, this may lead to a substantial degree of structural unemployment (esp. in the short term) as retrenched workers may not be able to pick up the relevant skills to take on jobs created in the new industries created. If so, the low skilled and low qualified workers suffer much more.

Synthesis:

Ultimately, whether the gains from the Fourth Industrial Revolution will outweigh the losses is dependent on whether the benefits gained from technological innovation will outweigh the unintended consequences created. This is largely dependent on the government’s ability to carry out appropriate policies to maximise the gains from technological innovations and at the same time, policies to minimize the costs of the unintended consequences.

LORMS		
L2	For a developed answer that explains 3 points, both benefits and costs of the Fourth Industrial Revolution.	5-7
L1	For an undeveloped answer that explains 2 points on benefits and costs of the Fourth Industrial Revolution. Or For a developed answer that only explains either benefits or costs of the Fourth Industrial Revolution	1-4

EVALUATION		
E2	Developed judgement that is supported with economic analysis.	2-3
E1	Unexplained judgement	1

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