

**JURONG JUNIOR COLLEGE**

**2016 JC1 ECONOMICS 9757 (H2)**

**PROMOTIONAL EXAMINATION**

**ANSWER BOOKLET**

## 2016 J1 H2 Promo Case Study Answers

**(a) (i) With reference to Table 1, compare the change in the share of total business car-hire rides among car rentals, taxis and private-hire cars between 2014 and 2016. [2]**

- **Difference:** In general, the share of total business car-hire rides among car rentals and taxis decreased between 2014 and 2016 whereas the share of total business car-hire rides for ride-hailing increased between 2014 and 2016. [1]
- **Difference:** Among car rentals, taxis and private-hire cars, private-hire cars experienced the greatest change in market share (38%) as compared to taxis (-23%) and car rentals (-15%). [1]

**(b) (i) With reference to Figure 2, explain the market structure that the traditional taxi industry in Singapore currently operates in. [2]**

- The traditional taxi industry in Singapore is an oligopoly. [1]
- Based on Figure 2, the four-firm concentration ratio of the traditional taxi industry in Singapore is 90.2%, which suggests that a few large firms dominate the industry. [1]

**(b) (ii) With reference to Extract 1, explain how the characteristics of the traditional taxi industry influence prices in the industry. [4]**

*Characteristic 1: High barriers to entry*

- There are high barriers to entry in the traditional taxi industry. Extract 1: High initial capital outlay in taxi industry
- No competition to erode supernormal profits earned.
- This prevents prices from being lowered.

*Characteristic 2: Mutual interdependence*

- Firms in an oligopoly are mutually interdependent.
- In the traditional taxi industry, the taxi operators engage in tacit collusion in the form of price leadership. In this case, the firms in the industry look to one firm, raising and lowering their prices when it does. As seen in Extract 1, taxi operators followed industry leader ComfortDelGro when it implemented a fare hike in 2011.

*(Only 1 mark to be awarded if candidate merely states price leadership without making reference to the extract)*

**(c) (i) Explain how market failure may arise due to asymmetric information when drivers purchase used cars from used car dealers. [4]**

- Market failure may arise in the used car market due to asymmetric information in the form of adverse selection against higher quality used cars in favour of used cars of a lower quality.
- Sellers in the used car market have more information than buyers regarding the actual quality of the car. In order to profit more from the sale, sellers may conceal crucial information about the condition of the car from potential buyers.

- Taking this into consideration, potential buyers of used cars tend to lower the price that they are willing to pay for used cars.
- At this lower price, sellers with used cars in good condition are unwilling to offer their cars for sale. Thus, asymmetric information will result in market failure.

**(c) (ii) Discuss the extent to which Singapore's Lemon Law helps to correct market failure due to asymmetric information in the used car market. [8]**

***Thesis: Explain how Singapore's Lemon Law helps to correct market failure in the used car market.***

#### Singapore's Lemon Law

- Singapore's Lemon Law is a law that protects consumers by requiring producers to compensate consumers if producers sell defective goods which do not meet standards of quality and performance (Extract 4)
- It provides sellers with an incentive to be truthful about the actual condition or quality of the used cars that they sell
- This provides consumers with the assurance that the used cars they purchase are of decent quality, and that the car they are getting is what they have paid for.

***Anti-thesis 1: Evaluate the limitations of the Singapore's Lemon Law in correcting market failure due to asymmetric information***

#### **1. Costs of Enforcement**

- Singapore's Lemon Law is costly to enforce. There are manpower costs incurred by government agencies such as CASE. Opportunity costs are also incurred since public funds channeled towards enforcement cannot be allocated for other public projects

#### **2. Costs to Producers When Consumers Make Unwarranted Claims**

- Some buyers may attempt to make claims under Lemon Law despite not being eligible for it, as evidenced by sellers' claims that some consumers abuse the process and try to make claims for car problems that arise due to regular wear and tear as mentioned in Extract 4. However, these claims may be awarded in consumers' favour, which in turn poses an extra and unfair cost on sellers.

***Anti-thesis 2: Explain how policies or factors other than Singapore's Lemon Law may help to correct market failure in the used car market.***

#### Mandatory regular car inspections

- Policies other than Singapore's Lemon Law may be implemented to correct market failure in the used car market. The government may also force car owners to have their vehicles regularly checked by government officials.
- This testing is to be done biennially once the car is more than 3 years old and annually once the car is more than 10 years old. (Extract 4)
- Buyers of used cars can request for the most recent test results prior to purchasing. These test results serve as proof of the car's condition and increase the amount of information available to buyers.

Evaluate the extent to which mandatory regular car inspections help to correct market failure in the used car market.

- The test results may be outdated and may not provide potential buyers with accurate information about the condition of the used cars that they buy (Extract 4).

Other companies may help to reduce the asymmetric information between buyers and sellers in the used car market.

- Other companies such as Edmunds.com and FindTheBest have been helping to correct the market failure that exists in the used car market by providing consumers with information on the quality of the cars that they intend to buy
- This reduces the information asymmetry between buyers and sellers, which leads to more efficient markets.

### **Synthesis**

State the stand

- Singapore's Lemon Law is useful to some extent in correcting market failure in the used car market as it indirectly increases the supply of information that consumers have.

Justify the stand using criteria for judgment

- However, the increase in information provided depends on the extent to which sellers believe they can get away with not being truthful as well as the costs of being caught, including the negative impact on their reputation if caught.
- In contrast to the Lemon Law, mandatory regular car inspections as well as the actions of other companies such as Edmunds.com and FindTheBest increase the amount of information that consumers have directly, thus avoiding the abovementioned limitations. Thus, the presence of other policies may render Singapore's Lemon Law unnecessary to some extent.

### **Marking Scheme**

Level	Descriptors	Marks
L2	<p>Two-sided and well-developed answer that argues how Singapore's Lemon Law may help to correct market failure in the used car market as well as its limitations. Answer also considers how other factors such as mandatory regular car inspections as well as the provision of information by other firms in the market may help to correct the problem of asymmetric information without the need for Singapore's Lemon Law to correct market failure.</p> <p>Good reference made to case evidence.</p> <p><i>Max 5 marks if no mention is made of other factors that help to correct market failure, i.e. answer only explains how Singapore's Lemon Law helps to correct market failure as well as its limitations.</i></p>	4 – 6
L1	<p>One-sided answer that only explains how Singapore's Lemon Law help to correct market failure in the used car market, without making reference to its limitations.</p> <p>OR</p>	1 – 3

	One-sided answer that only explains the limitations of Singapore's Lemon Law  OR  One-sided answer that only explains how other factors may help to correct market failure in the used car market.	
E	Demonstrates evaluation of the <u>extent</u> to which government policies help to correct market failure in the used car market, and arrive at a justified conclusion.	1 – 2

**(d) Discuss whether the entry of firms such as Uber and GrabCar into the taxi industry is beneficial to society. [10]**

***Thesis: Uber and GrabCar's entry into the taxi industry is beneficial to society.***

Benefits to consumers

- Consumers benefit because they enjoy greater convenience and choice. (Extract 2)
- Consumers benefit because they enjoy lower prices
  - Fares of Uber and GrabCar rides are lower than regular taxi operators' fares (Extract 2)
  - Consumers also benefit in the long run because the increased competition that results from the entry of private car-sharing app companies into the taxi industry will lead to overall lower prices since it reduces the likelihood of collusion between taxi operators.
- Consumers benefit because they enjoy better quality rides
  - In the long run, with the entry of Uber and GrabCar in the industry, the increased competition means that traditional taxi drivers will need to improve on the level of service provided in order to remain competitive in the market.

Benefits to private car-hire drivers

- The entry of Uber and GrabCar into the industry increases employment opportunities for people seeking a job, or for those who wish to have a supplement to their income.
  - For example, Extract 2 mentions that people such as retirees and housewives are provided with the opportunity to work flexible hours and generate income to support themselves.
- Thus, the entry of Uber and GrabCar into the taxi industry increases benefits to private car-hire drivers and also increases employment levels in the economy.

Benefits to other firms: car rental and used car dealers

- Private car-hire drivers who work for Uber and GrabCar may choose to purchase used cars from used car dealers. The rise in demand for used cars leads to higher revenues for used car dealers. (Extract 3)
- Private car-hire drivers who work for Uber and GrabCar may choose to rent cars from car rental firms instead of purchasing their own cars. The rise in demand for car rentals increases revenue for car rental firms. (Extract 3)

***Anti-thesis: The entry of Uber and GrabCar into the taxi industry is not beneficial to society.***

### Costs to existing taxi drivers

- Taxi drivers working for traditional taxi operators face increased competition from drivers who work for Uber and GrabCar. This has an adverse impact on the income that they earn, with some reporting that their income has fallen by at least 20 percent (Extract 2).
- Although taxi drivers have the option of switching to work for Uber and GrabCar, they face the prospect of not being covered by company insurance should they get into an accident. There may also be further government regulations on companies such as Uber and GrabCar (Extract 2).

### Costs to existing taxi companies

#### *Lower revenue*

- Traditional taxi operators are losing revenue due to the entry of firms such as Uber and GrabCar into the industry, which increases the amount of competition in the industry. (Extract 2)

#### *Higher costs*

- When their taxis are not hired, taxi operators have to absorb other costs such as the certificates of entitlement for the cars that were bought as well as insurance premiums. This lowers their profits further.

### **Synthesis**

#### State the stand

- Overall, the entry of Uber and GrabCar into the industry is beneficial to a large extent.
- Consumers, private car-hire drivers and firms such as used car dealers and car-rental companies benefit most whereas taxi drivers and taxi companies experience the bulk of the costs as a result of the entry of firms such as Uber and GrabCar into the taxi industry.

#### Justify the stand using criteria for judgment

*Students should argue why the extent of benefits is significant and why the extent of costs are insignificant or vice versa. They may use any valid criteria to evaluate whether the entry of Uber and GrabCar into the industry is beneficial or not beneficial to a large extent, such as long run vs. short run, mitigating factors etc.*

### **Marking Scheme**

Level	Descriptors	Marks
L2	Well-developed arguments that explain how Uber's and GrabCar's entry into the taxi industry results in <b>different benefits and costs to different agents in society</b> .  Good reference made to case evidence to support the arguments made.	5 – 7
L1	Descriptive and undeveloped arguments that explain either the benefits or costs of Uber's and GrabCar's entry into the taxi industry. Answer fails to recognise that there is an impact on a wide variety of agents in society.	1 – 4

E	Reasoned conclusion and judgment about the overall impact on society that takes into account the impact that Uber's and GrabCar's entry into the taxi industry has on efficiency, choice and revenue.	1 – 3
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### J1 H2 Promotional Question 1

- Explain the differences between monopolistic competition and monopoly in terms of efficiency and equity. [10]
- Discuss whether a firm's price and output decision is influenced solely by barriers to entry in the industry. [15]

#### Part (a)

- Define Monopolistic competition and give examples
- Define Monopoly and give examples
- Distinguish between MC and monopoly in terms of allocative efficiency
  - Both MC and monopoly set their prices more than marginal cost at equilibrium output and are thus allocatively inefficient.
  - An MC has a lesser ability to raise prices and hence is less allocative inefficient as compared to a monopoly.
- Distinguish between MC and monopoly in terms of productive efficiency
- Productive efficiency (PE)
  - Both MC and monopoly are able to achieve productive efficiency in the long run as equilibrium always occurs at a point on the LRAC.
- Distinguish between MC and monopoly in terms of dynamic efficiency
  - MC engages in dynamic efficiency.
  - Monopolies have more funds to invest in such R & D. Thus monopolies achieve greater dynamic efficiency than MC firms.
- Distinguish between MC and monopoly in terms of equity
  - For an MC, the inequity gap is smaller because it has less power to exploit consumers by restricting output and raising prices compared to a monopoly. An MC firm also only makes normal profits in the long run.
- In conclusion, due to the different characteristics of MC and monopolist, it results in differences in efficiency and equity issues.

#### Part (b)

##### Introduction

While a firm's price and output decision is influenced by barriers to entry, there are also other factors which influence them.

**Thesis: The determination of a firm's price and output decision is influenced by barriers to entry.**

- If a firm is an oligopolistic or monopolistic firm, it has high BTE. As a result, a monopolistic or oligopolistic firm has substantial market power. Due to its market power, the price set is likely to be higher than the price under a more competitive market.
- In the case of monopolistically competitive firms, the low BTE gives rise to a large number of small firms in the industry. The existence of the large number of firms means that there are many close substitutes for each firm's product. As a result, the demand curve for each firm is

fairly price elastic. In the long run, due to low or no BTE, the price set by these firms is based on normal profits being earned.

**Anti-thesis: The determination of a firm's price and output decision is influenced by other factors such as mutual interdependence, contestability of markets and firms' objectives.**

- The price and output of an oligopolistic firm, for example, is also affected by its characteristics of mutual interdependence.
- Mutual interdependence occurs when the decisions made by a firm takes into account the actions of its rivals.
- Price rigidity
- The market of a monopolistically competitive firm is more contestable compared to a monopoly or an oligopoly. New firms in the MC industry will be more willing to take the risks of entry when the costs of entry and exit are lower.
- Due to the threat of contestability in the market, existing firms may practice predatory pricing. Thus, the existing firms can afford to charge a higher price and earn more supernormal profits.
- Firms may have different price and output decisions due to different objectives. While most firms tend to maximise profits as their primary goals, some others aim to achieve other objectives. Elaborate

### Evaluation

- A firm's price and output decision is not solely influenced by BTE in the industry although it is one of the important factors. The extent to which BTE influence the price and output decisions of firms depends on the market structure they are in.
- A firm's price and output decision is also based on the assumption that accurate information is collected.

### Marking scheme

#### Part (a)

Level	Knowledge, Application, Understanding, and Analysis	Marks
L3	Well-developed analytical explanation of the differences between monopolistic competition and monopoly in terms of efficiency and equity.	8 – 10
L2	Descriptive explanation of the differences between monopolistic competition and monopoly in terms of efficiency and equity.	5 – 7
L1	For an answer that shows some knowledge of monopolistic competition and monopoly.	1 – 4

#### Part (b)

Level	Knowledge, Application, Understanding, and Analysis	Marks
L3	Well-developed analytical explanation of factors that affect price and output decisions of a firm.	8 – 10



L2	Descriptive explanation of factors that affect price and output decisions of a firm.	5 – 7
L1	For an answer that shows some knowledge of price and output decisions of a firm.	1 – 4
<b>Evaluation (5m)</b>		
E3	For a well-reasoned judgement	4 - 5
E2	For an attempt at judgement	2 – 3
E1	For an unexplained judgement	1

## **Essay Question 2**

The Singapore government has been spending a sizable portion of their budget on national defence and healthcare each year. The amount of subsidies given to low income households last year under the Community Health Assist Scheme (CHAS) increased to more than six times the amount given in 2013.

Explain why the Singapore government needs to intervene in national defence and the healthcare market and discuss if the increased spending by the Singapore government on the Community Health Assist Scheme (CHAS) is the most appropriate to correct the market failure in the healthcare market.

[25]

## **Suggested Answer**

### **Introduction**

The Singapore government intervenes in national defence and the healthcare market because they are public good and merit good respectively.

### **Part 1 of essay**

#### **National defence**

Explain how national defence(public goods) market fail due to non-rivalry and non-excludable in consumption.

#### **Healthcare**

Explain how healthcare(merit good) lead to market failure due to imperfect information, positive externality and inequity + diagram

Therefore, there is a need for the Singapore government to intervene in the healthcare market to improve the allocation of resources in the market.

### **Part 2 of essay**

#### **Thesis:**

#### **CHAS**

- CHAS enables Singapore citizens from lower and middle income households to receive subsidises for medical and dental care at participating clinics.
- The government can give consumers a per unit subsidy equal to the marginal external benefit (MEB) at socially optimal level output,  $Q_s$ .
- The increase in CHAS increases consumption of healthcare from  $Q_p$  to  $Q_s$  and the market failure is corrected.

Insert diagram here

### **Evaluation for CHAS**

- Addresses the equity issue by catering for these group of people who may otherwise not be able to afford healthcare. However, it will leads to moral hazard problem where individual may overconsume healthcare services by visiting the doctor for every small illnesses that they may have.
- Not all healthcare providers has joined the scheme and CHAS holders may go to one that is not covered under CHAS. But, this is only a small problem as a large number of them already are.
- Government budget. The problem of aging population is likely to stay and such continued increase in spending on healthcare will pose a problem for the government in the long run. There is also the opportunity cost involved in the use of the limited government funding in terms of spending on other areas such as national defence or education.

### **Anti - Thesis:**

#### **Alternative policy 1: Subsidy**

- The Singapore government can also consider using subsidy to correct the market failure in the healthcare market.
- The government can give a subsidy per unit equivalent to the marginal external benefits at  $Q_s$ . This will lower the cost of production of the good, and cost savings in then pass on to consumers in the form of lower price, thereby shifting MPC down and to the right to MPC'. Consumption of healthcare will increase from  $Q_p$  to the social optimal level,  $Q_s$  and the market failure is corrected.

#### **Evaluation for Subsidy**

- The amount of subsidy can be difficult to measure due to tangible and intangible benefits. Underestimation of the MEB at  $Q_s$  would prevent consumption from rising to the social optimal level while overestimation will cause healthcare to be over consumed, causing a large strain on existing resources. For example, it may lead to shortage of beds in some hospitals.

#### **Alternative policy 2: 3M policy/ Legislation**

- It is a compulsory saving scheme which helps individuals put aside part of their income into their Medisave accounts through CPF and ensures that consumption can take place when there is a need.
- Medishield Life is an insurance co-payment scheme that even people with pre-existing illnesses can buy. The premium can be paid using one's Medisave and every Singaporean is automatically included into this scheme.
- Shift MPB to the right to reach socially optimal level of consumption.

#### **Evaluation of 3M policy**

- The individuals will now have the money to consume healthcare when needed.
- Co-payment helps to reduce wastage by consumers and thus, prevent the problem of moral hazard.
- However, low income earner will not be able to save much money into their Medisave account and hence, the money saved may be insufficient for their healthcare needs.

#### **Alternative policy 3: Public education**

- Public education is needed as well. Through preventive health care programmes and campaigns that promote a healthy lifestyle for the population, Health Promotion Board has managed to raise health awareness among the population.
- Consumption of healthcare increases from  $Q_p$  to the social optimal level,  $Q_s$ .

#### **Evaluation of Public education**

- Require people to have a change in their mind-set and habits of lifestyle which are not easy.
- Nevertheless, the government ought to continue with this measure as it addresses the problem of imperfect information.

**Conclusion and Evaluation:**

Take a stand: The increased spending by the Singapore government on the Community Health Assist Scheme (CHAS) is appropriate to correct the market failure in the healthcare market as it helps to improve allocation of resources in the healthcare market and also, improve equity in the society.

- However, the government should use a combination of policies so that the various policies can complement each other strengths and weaknesses.
- Problem of government failure
- The public and private sectors should also be partners in healthcare provision. This is to ensure that the rising demand of the people for healthcare services can be met

	Knowledge, Application/Understanding and Analysis	
L3	For an answer using analysis to explain why Singapore government intervene in national defence and healthcare and the appropriateness of CHAS with 2 other policies.	15-20 (18)
L2	For an answer that gives a descriptive explanation of why Singapore government intervene in national defence and healthcare and the appropriateness of CHAS with 2 other policies.	9-14 (12)
L1	For an answer that shows some basic but largely unexplained knowledge on why Singapore government intervene in national defence and healthcare and the appropriateness of CHAS with 2 other policies.	1-8 (5)
E3	For an answer that uses analysis to support an evaluative appraisal about the appropriateness of the increased spending on CHAS by the Singapore government.	4-5
E2	For an answer that makes some attempt at an evaluative appraisal about the appropriateness of the increased spending on CHAS by the Singapore government.	2-3
E1	For an answer that gives an unsupported concluding statement or appraisal about the appropriateness of the increased spending on CHAS by the Singapore government.	1