**Types of graphs for market structure**

How price and output is determined by firms in prefect market structure

**How to apply the concept of Profit Maximization to determine the price and output level**

**Explain how, in economic theory, firms in imperfect markets would determine the price that would maximize profits. [10]**

Introduction (**requirements of the question / economic principles**

Imperfect market structures are market structures that have imperfect market information (price and cost of production) and immobility of factors of production (occupational and geographical). The firms under these forms of market structures possess certain degree of market power which will affect the production equilibrium that will determine the price level set by the firm. Regardless of the types of market structures, the firm will base on the notion of profit maximization to determine production equilibrium when the firms aim to maximize profit.

Main Body

**1. Explain the various types of market structures**

Under the imperfect market structures, it can be classified as monopolistic, oligopolistic or monopolistic competitive market where the industry may have one firm, few firms or many firms. For the monopoly, the produce of the firm is unique and there is high degree of market power while the product of the firm in the oligopoly is classified as homogeneous or differentiated and has strong market powers. However, the product of the firms in the monopolistic competitive market is classified as differentiated and there is small degree of market power.

**2. Explain how the firms in the imperfect market is affected by the market power of the firms**

Due to the influence of the market power, the firms in the imperfect market structure will have a downward-sloping MR and AR, indicating that the firm is capable of practicing price-setting whereby the firm can either decrease price to increase quantity demanded or increase price but face a lower level of quantity demanded. For the monopoly and oligopoly, the market power is derived from the barriers to entry while the market power for the monopolistic competition is based on product differentiation.

**3. Explain how the price level is determined by the production equilibrium based on profit maximization**

Based on this downward-sloping MR and AR, the firms in the imperfect market can set the price level when the production equilibrium is attained; abiding to the profit-maximising rule, Under this rule, the firm will increase production when the MR is greater than the MC since additional net profit can be earned and decrease production level when the MR is less than MC since additional net loss may be incurred. Thus, it will attain production equilibrium at the level of output where MR is equal to MC

**MR > MC – presence of additional net profit – increase production**

**MR < MC – presence of additional net loss – decrease production**

**MR = MC – production equilibrium**

AR=DD=P

Q0

Qty

MR

MC

Price

PC

P0

As seen from the diagram, it can be observed that the MR and AR are downward-sloping while the MC is upward-sloping as there is a higher rate of utilization of resource capacity. The production equilibrium is set at the quantity level of Q0 while the price level is set at P0 where MR = MC, abiding the rule of profit maximization when the firm determines price and output level.

**Different profit levels (optional)**

The firms in the imperfect market structures will make different levels of profit in the short-run and long run when it attains production equilibrium. In the short run, it can make subnormal profit, normal profit or supernormal profit. But in the long run, the firm can make only normal or supernormal profit as the firm will have to shut down when it incurs subnormal profit.

**Production and allocative efficiency**

It is imperative to note that the firm in the imperfect market structure will not be able to attain allocative efficiency as the price level is set at profit-maximising level does not equal to the marginal cost. It is not able to attain production efficiency in the short-run as the firm is producing at the excess capacity at the profit-maximising level of output though they are able to achieve production efficiency in the long run from the profit-maximizing level of production.

Conclusion

In sum, the profit-maximising rule will influence how the firm determines its price strategy in the imperfect market structure. The downward-sloping AR and MR condition will mean that the firms may not satisfy other aims of the firms when it set price level based on profit-maximising rule.

Until the price and output is set – what would you want to discuss further

Qn: Why the price is higher at the rural area and why it is lower at the urban city?

Variation of price-elasticity of MR and AR 🡪 degree of substitution 🡪 affected by number of firms 🡪 the price is higher when the MR and AR is price-inelastic and the price is lower when the MR and AR is price-inelastic

How higher degree of market competition affects production equilibrium

How lower degree of market competition affects production equilibrium

How lumpsum tax reduces profit and solve unequal distribution of income

How specific tax imposition reduce market equilibrium

**CSQ Question 1**

**Using the evidence in the data, discuss how the market structure of the retail clothing industry in the UK will affect the ability of firms in this industry to make excess profits in the long run when faced with an increase in the price of cotton. [10]**

**increase in price of cotton – increase in marginal cost -reduce profit – competitive – make loss (subnormal profit) – SR**

**LR – MC market – normal profit – exit of firms bec of subnormal profit**

 In the examination on whether the firms in the UK retail clothing industry will make excess profit condition, it is imperative to consider the nature of the market structure and how the cost condition will affect the production of cloth as seen from the rise in price of cotton.

 In the retail clothing industry, the firms will face a monopolistic competitive market structure and it will make the slope of the marginal and average revenue of the firms to be price elastic.

 The change in the price of cotton will lead to a rise in cost of production which will reduce the excess profit of the firms in the cloth retailing industry (it will make subnormal profit). It is also important to take note of the nature of the market structure of retail clothing as the market demand is affected by the characteristics of this type of industry.

**How the firm in MC market determines price and output decision in SR**

To determine the level of profit in the retail clothing industry, we need to derive the production equilibrium of the firm in this industry, which is based on profit maximization where the price and output level is set at the level where MC=MR. As the firm in the cloth retailing industry is under the monopolistic competition market structure, where there are many buyers and product is differentiated in an imperfect market structure and immobility condition, the marginal revenue (MR) and average revenue (AR) will be downward-sloping but price-elastic as there is limited market power for the firm as it is created through product differentiation. As for the marginal cost (MC), it will slope upwards and from left to right as it is subjected to over-utilization of capacity of production in the short run. Thus, the firm will produce at the level where marginal cost is equal to marginal revenue and price is set based on the equilibrium on average revenue. As for the profit, it will be based on the difference between the average revenue and average cost, multiplied with the output level.

Draw diagram and describe diagram

As seen from the diagram, the price and output is at P0 and Q0, where the firm’s marginal cost (MC) is equal to the marginal revenue (MR). The firm will experience normal profit at this level as average revenue (AR) is equal to average cost (AC) at Q­0.

The rise in the price of cotton will lead to a rise in the cost of production which will raise the marginal cost from MC0 to MC1 as the rise in raw material is seen as an increase in variable cost. Given that the profit maximization level is now at Q1, where the MR now intersects MC1, and thus the price and output level is at P1 and Q1, contributing to the subnormal profit condition as AR is less than AC at Q1. Hence, it can be observed that the firm is making subnormal profit.

In the long run, the profit condition for the firm will be at normal profit, when the industry adjusts to the subnormal profit condition, contributed by the characteristics of the monopolistic market structure of the barriers to entry. Due to subnormal profit condition, firms which are experiencing loss will exit from the industry and this will lead to an increase in market demand for the remaining firms and the MR and AR will become more price-elastic as there are less firms in the monopolistic competitive market. This adjustment will continue until the firm reaches the production level where there is normal profit and production level will be at profit maximization level.

Price

LRMC

LRAC

P0

MR0

Qty

Q**0**

AR1

As seen from the diagram, the production level is set at P0 and Q0 based on profit maximization and the profit level is now at AR=AC.

It can be observed that the firm will adjust to the condition of normal profit in the long run despite the rise in the price of cotton which will raise the cost of production. This is due to the condition of low barriers to entry which will allow the exit of firms till the remaining firms in the industry attain normal profit. This is seen from how the industry adjusts the slope of MR and AR, which is influenced by the degree of substitution for goods produced by lesser firms existing in this industry.

**CSQ Question 2**

**As an economic advisor to the British government,**

**(i) Assess the impact of the takeover of Cadbury by Kraft Foods. [10]**

**Impact on producers:**

Positive impact:

* Reduction in costs (Extract 4 "savings in things like procurement, on how we source cocoa, dairy, sugar, packaging and advertising")
* Gain a larger market share and increase revenue (Extract 3 "create a giant with $50 billion in yearly revenue, spanning the world from the United States and Mexico to Britain and India" and "give it a global distribution network")
* These should result in higher profits and increase producer welfare of Kraft

Evaluation/Negative impact:

* Other confectionary companies might engage in more non-price competition if they view the takeover as a threat.
* Dealing with "public dismay at the sell-off of such an iconic British brand".

**Impact on consumers:**

Positive impact:

* Cost savings may be passed on to consumers in the form of lower prices
* Increase in global distribution network might result in greater choices, leading to increase in consumer welfare
* Since the confectionery sector is "increasingly competitive", the takeover might result in more profits and greater ability to invest in R&D to innovate, leading to new products and more choices.

Evaluation/Negative impact:

* Higher possibility of price-fixing due to less competition and greater market power; exploitation of market power leading to higher prices and/or less variety of goods produced.

**Overall impact on economy/society:**

* The takeover could lead to "increase manufacturing jobs in the UK" as Kraft "vowed ... to invest in ... Cadbury and create more jobs". However, in its costs savings drive, it might streamline its production process and lay off workers. On the other hand, if the government does not allow the takeover, there might still be job losses as "Cadbury had been cutting jobs at its two major plants in Britain" and "Cadbury has limited opportunity as a stand-alone entity in this increasingly competitive environment", indicating that Cadbury might not remain profitable, leading to an eventual shut-down and loss of jobs.
* If the takeover results in an exploitation of market power, there will be greater allocative inefficiency
* If market power is exploited, there could also be greater inequity if Kraft reaps excessive profits at the expense of consumers and other firms.
* If the takeover results in Kraft having greater ability to carry out R&D due to cost savings, there will be greater dynamic efficiency

**Conclusion**

• The takeover could generate both costs and benefits to producers, consumers and society, depending on:

🡪how much the market power of Kraft increases or on the reduction of the level of competition in this market

🡪whether Kraft fulfils its promise to invest more in Cadbury and create more jobs

🡪whether the government has put in place appropriate policies to deal with possible anti-competitive behaviours

• Make a judgment and substantiate it

**(ii) Evaluate the possible policies to reduce/ prevent the detrimental effects caused by the behaviours of the confectionery companies. [8]**

**Anti-trust policies:**

• Detrimental effects: Exploitation of market power leading to higher prices, inefficient allocation of resources and/or anti-competitive behaviours (such as collusion, predatory pricing) 🡪 Loss in consumer welfare

• Anti-trust policies are programmes designed to prevent the deliberate creation of monopolies, and to prevent dominant firms from engaging in anti-competitive practices. Government agencies can take firms accused of such behaviours to court, forced it to be split up and/or impose penalties such as fines (Extract 2 "companies could be fined up to 10 per cent of their annual turnover").

• However, whether a firm has breached an anti-trust policy is rarely a clear cut case.

• Moreover, sometimes companies merge or takeover another company not to reduce competition but to lower costs through more efficient joint production.

The lower cost can benefit the consumers.

**Regulation through lump-sum taxes**

• Detrimental effect: greater inequity if Kraft or other confectionery companies reap excessive profits at the expense of consumers and other firms

• A lump-sum tax can be used to reduce this excessive monopolistic profit. A lump-sum tax is a tax fixed in amount and levied without any regard to the output or revenue of the firm. It can be regarded as a fixed cost to the firm and therefore shifts the AC curve upwards. If the government uses the tax revenue earned to subsidise the lower-income families, inequity issues can be further reduced.

Draw diagram and explain

**Supply-side policies (to deal with loss of jobs)**

• Detrimental effects: Loss of jobs if the "increasingly competitive environment" resulted in extensive costs-cutting/ streamlining measures and/or if firms start making losses and shut down.

• Market-oriented manpower policies such as reducing the power of trade unions and promoting greater mobility in the labour markets and flexibility in wages to enable those who have lost their jobs to find a new one.

• Interventionist policies such as providing incentives for workers to go for retraining and/or improving transport infrastructure to allow greater mobility of factors.

• To evaluate policies chosen.

**Conclusion**

• Will government intervention necessarily lead to a more desirable outcome? Possibility of government failures?

**CSQ Question 3**

**(e) Explain two reasons a lack of competition in the UK telecommunications industry will ‘hurt consumers’ (Extract 5). [4]**

Three and O2 will become the largest firm in the market after merger. (Extract 4) This raises their market power, enabling them to raise prices to increase profits in future. This will reduce consumer surplus.

With fewer firms in the market, the choice of mobile plans may be reduced (i.e. will not see the variety of combinations of different features seen in Table 1). Therefore, consumers may be negatively affected.

With an even larger market share, the merged company may not see a need to continually innovate to provide better quality services to its customers. This reduces any potential improvement in quality that firms may undertake to provide as a form of non-price competition.

**(f) Evaluate the factors that likely determined why the UK Government blocked the merger between Three and O2. [10]**

Question Requirement

* Identify factors that are relevant for government decision making
* Elaborate/provide examples of how it may choose between blocking the merger or not
* Assess the importance of the factors

**Possible factors, and why they are important**

**Relative extent of market failure from inequity** **(unfairness of poor mobile coverage in rural UK referenced in Extract 3) and inefficiency due to market dominance:** These affect choice between allowing Three and O2 to merge, and to block the merger. Important because the government has to decide which market failure to prioritise – competing objectives of efficiency and equity. If the UK Government decides that guaranteed coverage of 90% of UK is a fair enough level, compared to the 99% offered by Three and O2, then they may block the merger. Otherwise, they may approve the merger.

This point may instead be expressed in terms of the relative extent of market failure arising from factor immobility and market dominance. From the government’s response of blocking the merger, it seems to have judged that the additional social benefit of raising mobile phone coverage from 90% to 99% of UK is less than the additional opportunity cost to society – that there will be increased market dominance and therefore a larger deadweight loss in the telecommunications industry.

**Feasibility**: It affects choice between the government undertaking infrastructure development, or the private sector undertaking such development. Important because if the government’s budget balance is in a persistent deficit, undertaking large government expenditure may not be an option and the UK Government may thus choose to approve the merger between Three and O2 instead. However, if the UK Government deems that its budget position is healthy, it may choose to block the merger and undertake the infrastructure development via government expenditure.

**Side-effects/trade-offs:** Allowing or disallowing firms to merge depends on the efficiencies they generate too. If a firm is not allowed to merge, efficiencies that may be generated (e.g. productive efficiency due to increased internal EOS reaped and dynamic efficiency due to product/process innovation that may be carried out due to increased supernormal profits) when firms are large may not be reaped. If the government deems that allowing firms to merge may lead to improvements in productive and dynamic efficiency, then it may choose instead to approve the merger between Three and O2. If these positive side-effects the merger generates are limited, then they may choose not to approve the merger between Three and O2. The UK Government may have considered that the latter is likely to be the case because investment in infrastructure was limited, and less competition is likely to reduce the incentive for such investment.

**Time period**: The government may consider both the short-term and long-term impact of a merger between Three and O2. Although it has been promised that the geographical coverage of mobile services will increase, and cheap mobile phone plans for pensioners, these benefits (from society’s point of view) may be more than costs in the short-term. In the long-term, Three and O2 may exploit their increased market power to raise prices to increase profits. This will increase deadweight loss due to market dominance in the long-term.

**Evaluation: Make a judgement about what factors are likely to be more important than others and why, and link it towards the choice of government intervention within the data**

Relative extent of market failure is the most important factor because the aim of the government’s intervention is to correct market failure. Since the government has chosen to block the merger, it likely deems that the possible deadweight loss that arises from market dominance is greater than that from factor immobility.

Feasibility is not likely to an important factor in this case because the UK Government has already decided to embark on the mobile network infrastructure investment programme (Extract 3).

It is likely that the UK Government deemed that the possible efficiencies arising from the merger are likely to bring about less benefits to society than the possible costs as a result of increased market dominance.

**CSQ Question 4**

**(c) Identify the market structure of the pharmaceutical industry in China and USA. [2]**

The market structure of the pharmaceutical industry in China is **monopolistic competition** while the market structure of the pharmaceutical industry in USA is **Oligopoly.**

**Why MC in China? – because of price control – cannot set price to raise revenue and profit – therefore no incentive to innovate to create barriers to entry**

**Why oligopolistic in US? – patent rights**

**(d)(i) Explain the possible barriers to entry for the pharmaceutical industry. [4]**

Explain any two types of barriers to entry

One of the possible barrier to entry is **patent.** Patent is a set of exclusive rights granted by a sovereign state to an inventor or assignee for a limited period of time in exchange for detailed public disclosure of an invention. Pharmaceutical firms can apply for patent for new drugs created through R&D. Hence existing and new pharmaceutical firms will not be able to manufacture the drugs until the patent expired, giving the firm monopoly power.

Another possible barrier to entry is that of **branding.** Larger existing firms have the financial ability to engage in product differentiation through advertising due to their ability to reap supernormal profit in the short run. Smaller new entrants may not have the brand loyalty to compete with these firms especially if the drugs sold are similar (selling drugs whose patents have expired)

**Significant internal economies of scale** can prevent the entry of new firms. The pharmaceutical industry is a highly capital intensive industry where huge amount of money is devoted into R&D of new drugs in order to dominate the market. Potential new entrants may not have the startup fund and researchers to enter the industry. Large firm are also able to spread out its R&D cost over a larger output. Large pharmaceutical firms can also reap marketing economies of scale where the firm can spread its advertising cost over a large output and lower its average cost.

**Safely regulation** can be a form of barrier to entry for the pharmaceutical industry. Pharmaceutical firms are subjected to very stringent testing by authorities due to the huge potential health hazard a clinically unproven drug can bring to people. New firms may not have the expertise and technology to attain the necessary safety standards to enter the industry.

**(d)(ii) Discuss how the market structure of the pharmaceutical industry in China will affect the ability of firms in this industry to make excess profits in the long run when the Chinese government removes price controls. [10]**

**Structure of discussion**

1. **Explain how price control works and its impact on removal – how it makes the market become more oligopolistic ( have higher degree of market power**
2. **How the big foreign firms will gain**
	1. **– how it allows the firm to create higher BTEs to set price**
	2. **– how it raises their profitability**
3. **How the small local firms will lose out but can merge to be able to raise competitiveness**

Introduction

Explain how price control works in the pharmaceutical industry in China and its implication on the likely types of profits pharmaceutical firms are likely to make currently

Price control in the pharmaceutical industry in China refers to a price ceiling or maximum price legislation in order to keep drug prices low so that medical care is affordable (Extract 3) Hence **a price below the market equilibrium price is imposed by the government.**

As the market structure of the pharmaceutical industry in China currently is monopolistic competition due to weak barriers to entry, there are many small firms selling slightly differentiated drugs. **Weak market power and the price ceiling meant that pharmaceutical firms in China are likely to make only normal profits (or a small amount of supernormal profit) currently.**

With removal of the price control, the firms in this industry has incentive to grow and create BTEs higher profit

**Development: Discuss how the removal of price control would affect the ability of different pharmaceutical firms to make excess profit in the long run**

Key idea: **The ability to make excess or supernormal profit in the long run depends on the strength of the barriers of entry which would ultimately determine the market structure of the industry.** The higher the barriers to entry, the more market power the firms have and the more able the firms can make excess profits in the long run.

# Large foreign pharmaceutical firms

The removal of price controls would increase the market prices of drugs and **increase the amount of profits pharmaceutical firms would make**. **Bigger foreign firms may now also choose to enter** the Chinese pharmaceutical market and they are able to do so due to the weak barriers to entry. US pharmaceutical firms are likely to be bigger as the US pharmaceutical industry is an oligopolistic one. They **have the financial capabilities and technological know-how to innovate hence erecting higher barriers to entry in the industry.**

Initially the price controls stifled innovation as there are no incentives for firms to engage in R&D to create new drugs so that they could charge a higher price for it to make higher revenue. The price control will not cover the cost of R&D poured into the innovation. Now due to the removal of price controls, there is now incentive and ability to innovate. As the new drug has no or few substitutes, demand would be price inelastic and a price increase would result in a less than proportionate decrease in quantity demanded. Demand would also increase if the new drug is able to cure illness faster or even provide a cure where no existing drugs can do so. **Firms could then apply for patent** to be the sole manufacturers for an extended period of time and earn supernormal profit. These **supernormal profits can then be reinvested into R&D so that further innovation can take place and stronger barriers to entry can be erected.** This may then result in an oligopolistic market in the long run where firms are more able to make excess profits in the long run.

Furthermore, these large foreign pharmaceutical have **existing brand name and financial abilities to engage in large scale advertising which can create brand loyalty**, hence lowering the price elasticity of demand. Demand for the firm’s product would also increase as consumers switch from rival firms. The firm can then increase price and receive more revenue. Assuming the revenue earned is more than the cost of the advertising, profit would increase. The **increased in brand loyalty also erect a higher barrier of entry in the industry and blocked off potential entrants, enhancing the ability to make excess profit in the long run.**

Draw and describe the big firms will gain supernormal profit due this barriers to entry.

# Existing firms

The removal of price control would increase the profit of the existing firms. To compete with the potential entrant of large foreign pharmaceutical firms, these firms could use the supernormal profit earned to engage in R&D to innovate new drugs as well as advertising. Hence the ability of these firms to make excess profits depends on:

* 1. The **extent of the increase in supernormal profit due to the removal of price control.** Both require huge monetary outlay and the increase in supernormal profit may not be enough for the firms to engage in R&D or advertising.
	2. What the firms do with the increase in supernormal profit. **Without innovation, any advertising is likely to focus on branding where perceived differences are created between rival firms.** This would only result in **slight product differentiation and barriers of entry would remain weak.** Thus, the firms are unlikely to make much supernormal profits in the long run
	3. **Whether the firms merged.** Merging allows these existing firms to compete more effectively with the larger foreign firms through reaping more internal economies of scale and tapping on existing brand loyalty. Smaller firms would not be able to compete on both quality of drugs and prices hence they would be driven out of the market.

# Conclusion

The **capital-intensive nature of the industry means that it is likely to be oligopolistic when the government removed price control and allows free market forces to work.** Hence, the removal of price control enhance the firms’ abilities to make excess profits in the long run but not all existing firms would be able to make excess profit in the long run as the smaller inefficient firms are unlikely to survive. Moreover, innovation takes time and there is no guarantee that it will be successful as there is high risk involved. Given that China is still a developing country with less expertise and infrastructure on R&D, the likelihood of successful innovation is reduced.

Whether Pharmaceutical firms in China can make excess profit in the long run when the Chinese government removes price controls also depends on

* + 1. **Strength of patents:** The stronger the patent, the more likely innovation will take place and potential entrants are less able to enter the market. Hence the more able Pharmaceutical firms in China can make excess profit in the long run. Extract 3 pointed out that the regulation in china is not very strong as firms are able to cut corners using inappropriate material in their drug manufacturing process. Hence firms may not be willing to engage in R&D if they feel that the Intellectual Property law is not strong enough
		2. **How open the Chinese government is towards foreign firms.** The more open the Chinese government is towards foreign firms, the more likely innovation will take place and potential entrants are less able to enter the market. Hence, the more able pharmaceutical firms in China can make excess profit in the long run. Although the entrant of big foreign pharmaceutical firms could bring about more innovation and thus dynamic efficiency, this would lead to the closure of domestic pharmaceutical firms and thus bring about unemployment. Hence additional government regulation (protectionism) may be imposed to protect the domestic producers and slow down the rate of innovation.

**Questions for discussion**

**Question 1**

Discuss whether government intervention against anti-competitive behaviour by fresh chicken distributors is likely to improve economic efficiency (8)

**Question 2**

“Big data is one of the most critical factors affecting market contestability.” (Extract 2) Explain how big data affects the contestability for a market. (3)

**Question 3**

**Extract 3: Tencent, Lego look to pull China’s games market out of the doldrums with new offering**

China’s online game market, the world’s largest, has experienced dramatic growth in recent years. Top players such as Tencent and NetEase dominate the country’s mobile gaming market, holding 51.1% and 14.8% of the market share respectively. Mostly relying on sales from China’s protected market, Chinese game companies appear to have had limited success in exporting their games to foreign markets outside of East and Southeast Asia.

In January this year, internet giant Tencent Holdings announced its partnership with The Lego Group. The partnership covers the creation of a Lego video zone for children on the Tencent Video platform as well as the development, publication and operation of Lego-branded licensed games. It also includes the publication and operation of the online operation system for Lego Boost – a building and coding set that lets children bring their Lego brick toy creations to life – and the joint development of Lego Life, a safe social network for children in China.

With the growing popularity of online gaming, the Chinese government is increasingly concerned about its negative aspects such as its effect on the eyesight of the country’s youth. In 2015, uncorrected myopia was estimated to have caused $244 billion of potential lost productivity worldwide. Macular degeneration due to myopia was associated with another $6 billion of potential productivity loss.

China’s tighter regulation of its gaming industry, ostensibly to protect minors from harm, is expected to see consolidation in the sector in the short term, forcing game publishers to adopt a more global approach to survive. The halt in new game approvals has resulted in a heavy toll on the biggest player in China’s gaming industry. Tencent posted a 2 per cent drop in second-quarter profit on lower gaming revenue.

There is a workaround to get games published without approval: buy licenses from “shell” games. These titles are registered only for the sake of being sold later, and typically have buzzwords like “legend” and “heroes” in their names, according to industry insiders. A Beijing- based games publisher said current market prices for shell licenses range from 400,000 yuan to 800,000 yuan (US$58,000 to US$116,000) more than double what they were before the hiatus in approvals began.

Adapted from: South China Morning Post, 11 and 14 September 2018

**Extract 4: The board games market – global outlook and forecast 2018-2023**

After years of digitalisation, classical forms of entertainment are coming back into vogue.

The growing number of board games cafe worldwide is helping companies attract a large number of consumers in the global board games market. A wide variety of board games are now being produced to target every age group and help attract a new group of consumers to these cafes across the global market. In addition, the high disposable income of millennials will help generate high revenues in the global board games market.

In the US, over 5,000 board games cafes were opened alone in 2016. The global board games market size is expected to grow at a compound annual growth rate (CAGR) of more than 9% by 2017-2023.

Adapted from: PR Newswire, 11 December 2018

**Question**

In more competitive markets like the board games cafe, a firm’s profits will likely be competed away, while top players in the Chinese e-gaming market like Tencent Holdings and NetEase are able to make huge profits over time. Discuss. [10

CSQ 4

**Extract 2: Thailand’s durian industry**

Thailand’s biggest durian-producing region is Chanthaburi, an eastern province that accounts for 1.2 per cent of the country’s land mass but nearly half of its durian output owing to its favourable soil and climate.

Selling durians is so lucrative that it is prompting other farmers to jump on the bandwagon. The price of rubber has also slumped over the last few years, so rubber plantations are increasingly being replaced by durian trees. For example, a couple, Niwat and Jirakul, cut down their rubber trees five years ago to plant more than 100 durian trees, hoping to ride the tidal wave of Chinese demand.

Durian trees take a long time to mature, however, and they will reap their first fruits the following year. Niwat thinks they could get about a million baht (S$45,000) if all their trees produce durians. Small farms like theirs, however, are becoming rare in Chanthaburi as mega plantations take over. Durian Land, for example, covers two square kilometres. Owner Chanogmon Viriyapanichpakdee would buy more land if it is available.

He is a bit worried now, however, because Malaysia has been allowed to export frozen whole durians directly to mainland China from this year. “Nowadays, Chinese people know only about the Mao Shan Wang (or Musang King) durian,” he says. “We export much more than Musang King to China, but consumers don’t know about the name of the durian from Thailand.” Thailand’s main durian export is the Monthong (Golden Pillow) variety, but branding is a “weak point”, he admits. “Maybe next year, we’ll find a partner who can create a stronger brand for Thai durian.”

Source: *Channel News Asia, 30 Nov 2019*

**Extract 3: Thailand's trade office warns of future competition**

Thai farmers are being urged to improve the quality of their durian in order to preserve market share after China's Hainan province succeeded in growing durian seedlings imported from Malaysia. Ms Wanlada Rattanapanich, director of the Department of International Trade Promotion (DITP) office in Nanning, China, said the department has watched as China attempted for quite some time to grow durian trees. "A private company in Hainan province bought 20 durian seedlings from Malaysia and succeeded in growing them in Sanya city in southern Hainan," she said.

Ms Wanlada added that although Hainan is still unable to produce sufficient quantity or quality for domestic consumption or export, with continued research and development they could become a future competitor to Thailand. Currently more than 80 per cent of fresh durians in the Chinese market are imported from Thailand," she said. "To preserve the market share, Thai farmers need to maintain and improve the quality of our product especially in terms of fruit size and unique taste."

Source: adapted from *The Straits Times, 27 Aug 2020*

1. In view of increased competition from Malaysia and China, discuss the relative effectiveness of the possible strategies that the Thailand durian farmers can undertake. (8)

**CSQ Question 5**

**Extract 5: Netflix’s cash-fuelled road to streaming dominance**

The streaming service surprised Wall Street with huge gains in subscribers in the third quarter. The results showed why AT&T Incorporation and the Walt Disney Company spent big on their latest acquisitions. Here are some notable numbers from Netflix: 130 million paying customers as of September; US$14.9 billion in revenue in the last 12 months; US$1.3 billion in profit for the same period; 7.6 million more paid subscribers expected to be added in the last three months of 2018; 23 Emmy Awards this year, the same as HBO.

Here is another: US$18.6 billion. That’s the amount Netflix has committed to spending on content, including many series that won’t show up on the service for months or even more than a year, like new seasons of ‘The Crown’ and ‘Stranger Things’ and the much-anticipated line-up from the super producer Shonda Rhimes.

It is also far more than what traditional players like Disney, HBO or NBCUniversal generally spend on entertainment. But that’s why investors are mad for Netflix. They are betting on its unorthodox media model: Spend big now and reap a massive subscriber base and big profits later. Possibly much later. The service’s current tally of 130 million customers beat Wall Street estimates, but investors are ultimately counting on 300 million, or more.

Source: *The NY Times*, 17 October 2018

1. ‘Spend big now and reap a massive subscriber base and big profits later (Extract 5).’

Discuss whether Netflix’s business strategies stated above are consistent with profit maximization.[8]

**CSQ Question 6**

**Extract 4: How Singapore firms are shrinking their packaging footprint**

Many firms in Singapore have found that simple packaging tweaks can have a big impact on a company’s packaging footprint and boost its bottom-line.

When Nestlé Singapore shortened its Milo drink powder packages, it averted the annual use of about 30 tonnes of plastic laminate. The company also switched from a smaller capacity woven bag to store tapioca starch to a larger flexible bulk container, diverting 163.8 tonnes of packaging waste from the incinerator annually, and savings on waste disposal costs.

In the technology sphere, Hewlett Packard Enterprise (HPE) implemented a slew of measures to shrink its packaging footprint. For one product line, it halved the amount of plastic protective foam used per delivery box from 7.2 kg to 3.4 kg and now uses recycled foam instead of virgin foam. For three other product lines, it replaced the low-density polyethylene foam cushions used to protect items with either air-filled or lighter cushions.

Lisa Chua, a strategic sourcing manager at HPE, tells Eco-Business: “The changes in the four products’ packaging helped us to slash our plastic use by 235 tonnes per year and save more than US$1.5 million each year. By reducing the amount of packaging on our products, we’ve also cut back on the energy used to transport them.” The review of their packaging practices also resulted in US$8,000 in annual savings on corrugated cardboard across all four products.

1. With the aid of a diagram, explain the impact of the “shrinking packaging footprint” on a firm’s profits. (4)