**Central Economic Problem**

**Content Teaching**

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2. Explain how efficient allocation of resources is attained

3. Explain the concept of Opportunity Cost through PPC

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**1. Explain the problem of scarcity and resource allocation**

The problem of scarcity exists as there are limited resources while the wants are unlimited which leads to a situation where there is shortage of resources. This will lead to the need to conduct resource allocation to solve the problem of scarcity.

Resources are limited as these resources are finite and are non-renewable and take a long time to renew. This implies that there are not enough resources for production to match the wants of the consumers in the economy. At the same time, the wants are growing as there is a larger population and more wants are created by advertising which creates a situation where the resources are unable to match the growing wants in the society.

Thus, this gives rise to the need to conduct resource allocation where there is a need to solve the three fundamental economics problems on what to produce and how much to produce, how to produce and for whom to produce to ensure that resources are utilized efficiently to gain maximization of net social benefit gain.

**2. Explain how efficient allocation of resources is attained**

2.1 Meaning

In the process of resource allocation, the economy involves solving the three fundamental economic problems on what to produce (amount to produce), how to produce and for whom to produce. In this process, the economy will be based on the type of economic system.

2.2 Process of Resource Allocation

In this process of resource allocation, it involves the following process:

a) Allocation of resources

- to decide what goods and services to produce

- how much of each to produce at any given time

b) Organization of production (profit maximization)

- to choose the best technique of production (labour and capital intensive)

c) Distribution of Commodities

- how to appropriate the products among the individuals and organization in an economy (distribution of goods and services)

**3. Explain the concept of Opportunity Cost through PPC**

3.1 Concept

Opportunity cost is defined as the cost of using resources for a certain purpose, measured in terms of the next best benefit it can derive when it is used for another alternative.

The concept of opportunity cost can be illustrated through the use of the production possibility curve where certain assumptions must be held constant. From the PPC, we can observe that the increase in the production of one good will lead to the reduction of another good and thus, the value of opportunity cost of the increase in production of the first good is seen in terms of the value of reduction in the production of the second good.

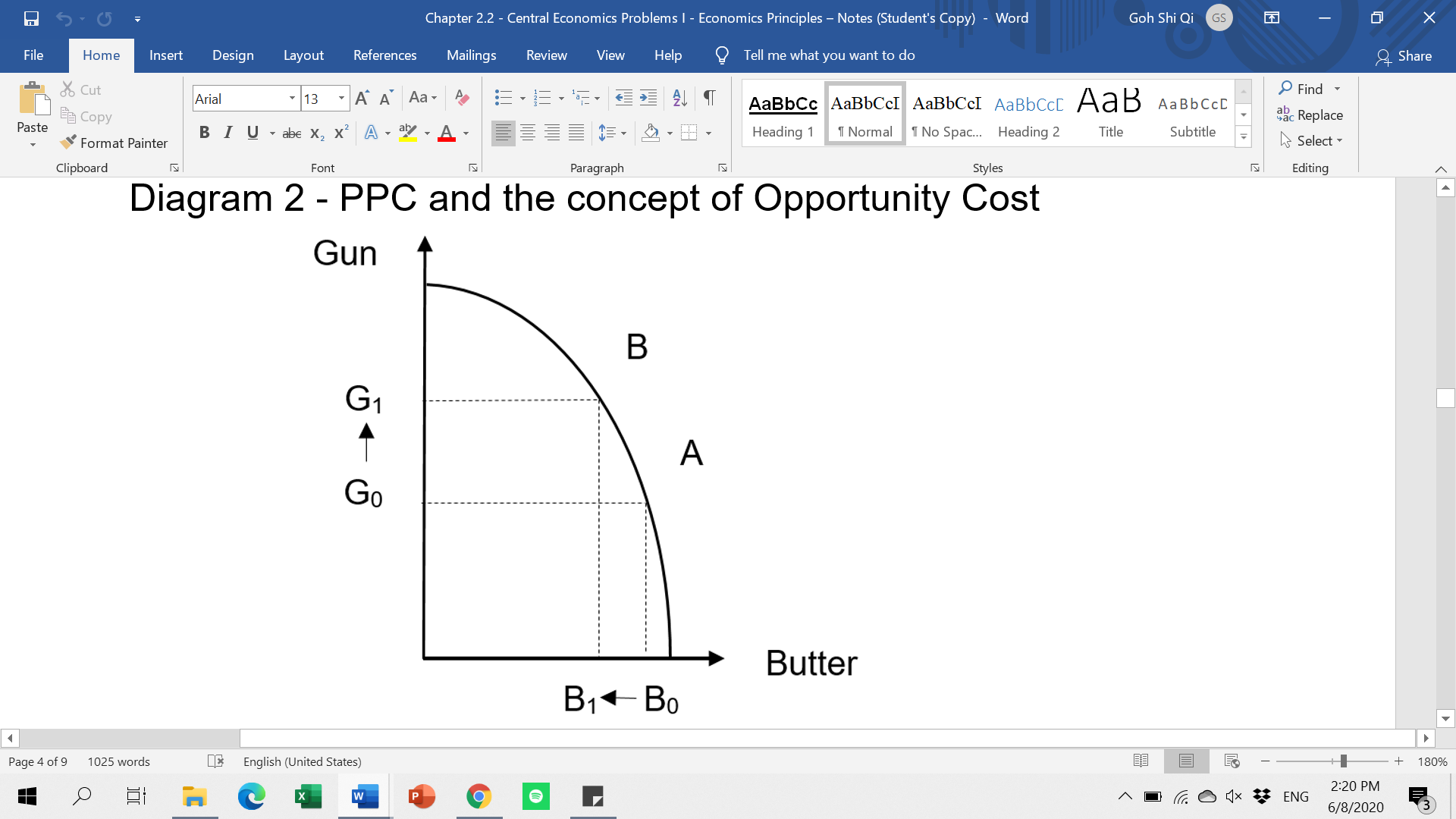
3.2 Basic assumptions of the PPC

• The economy is at a specific state of technology.

• The economy can fully utilize all of its available resources.

• Only 2 goods are analyzed.

• Resources are fixed.



The increase in production of more guns will mean that there is a decrease in production of butter. Therefore, the opportunity cost for production of guns is seen in terms of the reduction in quantity of butter. The opportunity of Go G1 units of guns will be the reduction in units of Bo B1 of butter.

3.3 The relationship between the slope of PPC and Opportunity Cost

When the PPC is a straight line, there is a constant opportunity cost. This implies that the increase in production of guns will lead to a proportional reduction in butter.

When the PPC is concave to the origin, the opportunity score is increasing, Thus, the increase in production of guns will lead to a more than proportional reduction in butter. (resources are more suited to the production of the other good than the existing one).

When the PPC is convex to the origin, the opportunity cost is decreasing which means that an increase in production of gun will lead to a less than proportional decrease in butter (resources are less suited to the production of the other good than the existing one).

3.4 Shift in the PPC

A. Outward shift PPC represents an increase in the production of both goods. This

is due to:

1. Increase in labour supply
2. Improvement in technology
3. Increase in capital employment

B. Inward shift of PPC represents a decrease in the production of both goods. This

is due to:

1. Decrease in labour supply
2. Decrease in capital employment

**4. Explain how actual and potential growth can be attained through actual and potential growth**

Actual economic growth refers to the actualization or utilization of resources into products, contributing to the growth of production capacity. This means that the level of national income has increased and this is represented by the movement of the production level within the PPC to the production level on the PPC.

Potential growth refers to the expansion of the availability of the resources, implying that there are more resources for production in the economy. This means that the potential production capacity has expanded and this is represented by the outward shift of the PPC.

**5. Explain the impact of an increase in resource which are suitable for production of consumer goods**

**6. Explain the meaning of normative and positive statement**

**Normative economics** focuses on the value of **economic** fairness, or what the **economy** "should be" or "ought to be." While **positive economics** is based on fact and cannot be approved or disapproved, **normative economics** is based on value judgments.

The government should ensure that 50% of the population in the economy are in the middle income group. (Normative Economics Statement)

According to the 2019 statistics study, 50% of the population earns $3000 to $4000 per month which is the middle income group.

**Question for discussion:**

**Qn: The recent Covid-19 crisis has contributed to extensive disruption of the world economy in terms of the absence of production, failure crop harvest, distribution of resources for production and supply chain breakdown. At the same time, the lockdown has led to the reduction of consumption and disruption of infrastructural development by the state.   
  
i) Using the PPC diagram, explain how the Covid-19 can affect the economy. (6)**

The Covid-19 Crisis affects the economy as there would be reduction in the production and production capacity. The reduction in consumption and the disruption of infrastructural development means that there would be under-utilization of resources for production which leads to inward shift of the production level, implying that there would be lesser production of both consumer and capital goods. At the same time, bad harvest, failures in the distribution of the resources and supply chain breakdown undermines the economy from developing its production capacity and this would cause an inward shift of the PPC , reducing the availability of resources for production which means that there is reduction in production capacity. This implies that the economy is experiencing both reduction in actual and potential growth.

Diagram

As seen from the diagram, the original production level of the economy is at A where the production level is on the PPC I where the output level of the consumer goods is Q1 and capital goods is Q1. The crisis causes a reduction in the level of production of capital and consumer goods and reduces the output of both goods to Q2. The reduction in the production capacity is seen by the inward shift of the production possibility curve from PPC I to PPC II. This implies that the economy has reduction in both actual and potential growth.

Case Study

1. GCE A Level H1 Economics 2018 Question 1

**Challenges facing the global fishing industry**

**Extract 1: Illegal fishing off the coast of Africa**

West Africa suffers more proportionately from illegal fishing than any other region in the world, with an annual loss of US$1.3 billion. Rising global demand for fish has attracted fishing fleets from around the world to the African waters. Trawlers from Europe are still the primary foreign presence, but fleets from Russia, China, South Korea and other East Asian countries have also expanded in recent years.

The illegal fishing reduces revenue and jobs for the region, but also puts extra pressure on fish stocks worldwide and harms the total marine environment, for example by damaging habitats and discharging waste into the sea. Too often, as well, African nations lack the capacity to monitor and enforce fishing regulations, so that concerted international action is needed.

Source: Africa Progress Panel, 19 June 2014

(a) (i) Using a production possibility curve diagram, explain the trade-off that exists between fish farmed for food use and fish farmed for non-food use. [2]

(ii) Explain the likely opportunity cost of catching and landing large numbers of young, under-sized fish. [3]

2. ACJC H2 Economics 20189Prelims Question 1

**Railway**

**Extract 1: Connecting Britain**

High-Speed 2 (HS2) is a planned rail network between London, the West Midlands and the North. It will be the biggest construction project in Europe and it is expected to bring great economic benefits to the country. The construction of HS2 will be a major generator of jobs and businesses directly linked to the project. The benefits will fall across a wide range of industrial sectors from the construction sector to the civil engineering and rail industries.

Beyond the construction of the railways and stations themselves, associated development triggered by HS2 can have an important impact on the economy. There is evidence that infrastructure has a stronger positive effect on growth.

However, many who live along the proposed route are naturally opposed to the project. One major reason is obviously the prospect of years of disruptive construction work, followed by up to 28 trains an hour screaming past their homes and villages at speeds of up to 400km/h.

The Institute of Economic Affairs (IEA), predicts that costs will be greater while the economic benefits will be lower than what the government has forecasted.

The overall costs would be higher for a number of reasons, ranging from minor costs such as compensation for disruption during the construction work being paid to residents staying near construction sites, to major expenses arising from a resulting need to expand and upgrade existing stations that are going to link to the HS2. Moreover, when operating costs are added to the initial investment of HS2, the overall cost could increase substantially.

Furthermore, the overall revenue from ticket sales are unlikely to match expectations stated by the UK government.

*Source: GOV.UK developer docs, accessed 20 July 2019*

(c) Extract 1 explains that the UK government is considering building the High-Speed 2 (HS2) rail network to improve rail connections in the country.

(i) Explain a possible opportunity cost that the government might incur in the building of HS2 rail network. [2]

(ii) Explain how the production possibility curve of the economy will change when the High-speed 2 (HS2) rail network is completed. (5)

Answer

(i) Opportunity cost is the forgone **value** of the **next best** alternative. If the UK government built the HS2, the government might have forgone the benefit of spending on higher education such as making the UK a more attractive place for FDI.

(ii) When the rail network is completed, it can be observed that the production possibility curve expands and shifts outward from PPC 1 to PPC 2 as there is a higher level of production capacity to enable the economy to increase production. There is a higher degree of mobility of resources which expands the availability of resources, enabling the economy to increase production of the goods and services. As a result, the economy moves from the production level within the production possibility curve to the production level on the PPC 1 as there is a greater utilization of resources for production, made possible by the HS2 rail network. Consequently, we can observe that there is actual and potential growth in the economy as there is a higher level of output and the outward shift of the production possibility curve.

As seen from the diagram, the building of the HS2 network will shift the PPC from PPC1 to PPC2 indicating that there is potential growth. This enables the production of both consumer and capital goods in the UK to increase from Q1 to Q2, indicating that there is actual growth.

3. Temasek JC H2 Economics 2019 Prelims Question 1

**More of Wire-less? – The Market for Wireless Data**

**Table 2: Comparison of USA mobile data plans**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Carrier** | **Unlimited data**  **monthly cost** | **Data limit** | **Hotspot**  **allowance\*** | **Bundled streaming**  **services included^** |
| Sprint Unlimited  Basic | $60 | 50GB/month | 500MB at LTE  speeds | Hulu |
| T-Mobile Essentials | $60 | 50GB/month | Unlimited 3G data  speeds only | none |

*\*hotspots allow for the use of Wi-Fi instead of mobile data at certain locations. The fastest speed available for hotspots are LTE speeds.*

*^streaming services allow consumers to tap on third party apps for TV shows, music etc. ‘Hulu’ is a movie / TV shows streaming service.*

Source: *c|net*, 4 Sep 2018

(c) Suppose a US consumer is choosing between two plans in Table 2.

Explain what is the opportunity cost of buying the ‘Sprint Unlimited Basic’ data plan. [2]

Answer

Opportunity cost is the forgone value of the next best alternative when one buys the ‘Sprint Unlimited Basic’ plan. [1m] These forgone benefits are 50GB/month data access and the unlimited Wi-Fi hotspot access at 3G speeds from the T-Mobile Essentials plan. [1m]

4. SAJC H2 Economics 2019 Prelims Question 1

**Love-Hate Relationship with Plastics**

**Extract 4: Cut use with mandatory tax**

A Straits Times online poll had more than 75 percent of over 4,700 respondents supporting a plastic bag tax. But many others spoke out vehemently against it on social media. Plastic bags should be given out for free, detractors say, for two main reasons: The bags are needed for bagging trash; and the lower-income group may be adversely affected by such a tax. If the bags are not given out for free, people may simply throw pollutive food waste directly into the common chute, turning it into a hot spot for cockroaches and other pests, they claim.

But as Mr Louis Ng, an MP for Nee Soon GRC, points out, a plastic bag tax is not a plastic bag ban. People would still be able to get bags for their trash. He said: "Many people forget that the first step of the 3Rs is to reduce... If people are charged for plastic bags, they may try to reduce the number of bags they get at the counter."

Moreover, not all trash needs to be bagged. "If we separate recyclables from organic food waste, we will find that most of the waste would go into the recycling bin - which you don't need to bag," said Mr Tay, executive director of Zero Waste SG. In the long run, it is vital to help consumers recognise that the slight inconvenience is a small price to pay for the sake of the environment.

On how lower-income groups will be affected by a plastic bag tax, experts say it depends on how much the levy is. At 10 cents per bag, calculations by Zero Waste SG show that the surcharge would make up just 0.35 per cent of the annual income of a household living in a one-or two-room Housing Development Board flat.

*Adapted from https://www.straitstimes.com/ accessed on 20 Jun 2019*

(e) “In the long run, it is vital to help consumers recognise that the slight inconvenience is a small price to pay for the sake of the environment.” (Extract 4)

Explain whether the above is a positive or normative statement.

Answer

The above is a normative statement [1] as it is based on the opinion (or value judgement) of the author of the article. Whether it is vital or not could be debatable among policymakers as well as the public and the statement cannot be objectively verified to be true or false by examination of facts. [1]

5. Temasek JC H1 Economics 2019 Prelims Question 2

**The Economics of Sports**

**Extract 7: A City Transformed**

Since winning its bid for the 2016 Olympic Games seven years ago, Brazil’s Rio de Janeiro has undergone a construction boom, including new sports venues, subway connections, and more infrastructure. One of the flagship transportation efforts, Rio built a new subway extension linking popular beach areas with the neighbourhood where the Olympic Park is located. Enormous investment has been pumped into transportation infrastructure projects throughout the city, including the VLT Carioca (the Rio de Janeiro Light Rail) in the port district. The rail connects Rio’s domestic airport to a bus terminal and is aimed at revitalising the area.

The construction of the golf course, however, has stirred controversy. Golf is not widely played in Brazil, and though there is one small public course on the northern outskirts of Rio, Brazilian officials have touted the fact that after the Olympics, the course would become the first professional-quality public course in Brazil. But it was partially built on a protected nature reserve, angering local activists.

*Source: The Wall Street Journal, August 2016*

(i)) Using Extract 7 and a production possibility curve diagram, identify and explain two benefits of hosting the Olympics to the host country. [6]

(ii) Explain the possible hindrances that may occur to prevent the Japanese economy to reap the gain seen in the production possibility curve. (6)

Answer

One benefit of hosting the Olympics is actual growth [3]:

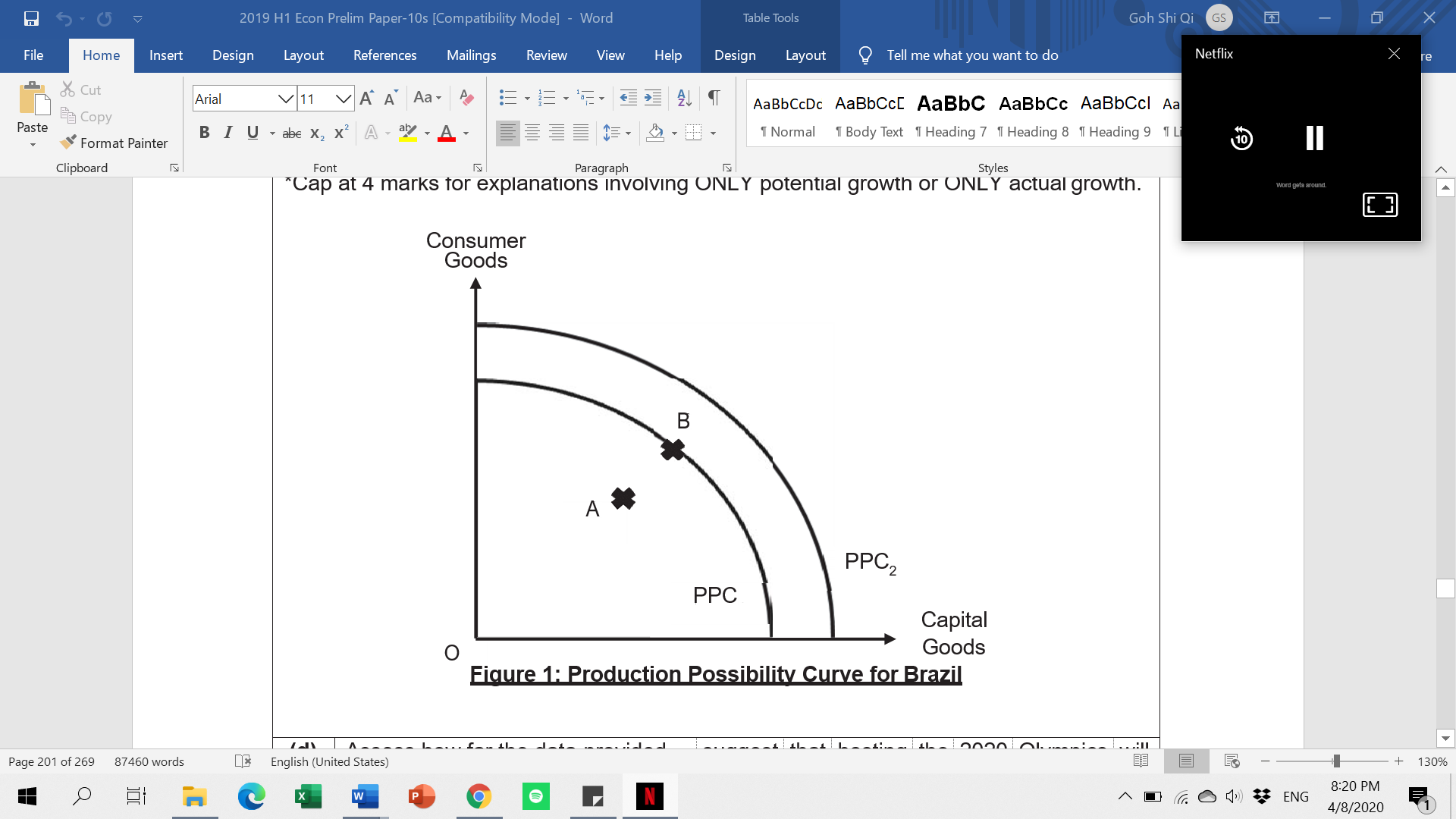
• Greater utilisation of resources [1] to meet the increase in investment and/or government expenditure as a result of hosting the Olympics [1]

• PPC to illustrate movement from Point A to Point B in Figure 1

Another benefit of hosting the Olympics is potential growth [3]:

• Increase in investment and/or government expenditure can increase productive capacity [1], such as infrastructure projects improving the quantity and/or quality of resources available in the economy [1]

• PPC to illustrate potential growth [1]: outward shift of the PPC from PPC1 to PPC2 in Figure 1



6. GCE A Level H1 Economics 2019 Question 1

**Tourism in the world economy**

**2.3 Egypt**

The country experienced a political revolution in early 2011, popularly-backed military coup in 2013 and then a series of high-profile airline disasters. The result has been disastrous for the country’s tourist industry. Tourist numbers recovered considerably after the shocks of 2011 and 2013, but by 2016 were 60% below their peak 2008 level. The impact on the whole economy ,including in particular foreign currency earnings and employment, has been devastating, and the government’s promises to take effective action to repair the economic damage have been ineffective.

*Source: The Guardian, 21 October 2016*

(b) Assess whether or not the statement in Extract 2.3 that the Egyptian ‘government’s promises to take effective action to repair the economic damage have been ineffective’ is a normative one. [4]