Please check the examination details below before entering your candidate information

Candidate surname: StemUp Model Solution

Other names:

Centre Number | Candidate Number

Pearson Edexcel International Advanced Level

Tuesday 9 January 2024

Afternoon (Time: 1 hour 45 minutes)

Paper reference **WEC11/01**

Economics

International Advanced Subsidiary
UNIT 1: Markets in action

You must have:
Source Booklet (enclosed)

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **ALL** questions in Sections A, B and C.
- Answer **ONE** question in Section D.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Calculators may be used.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ▶

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P 7 3 4 8 2 A 0 1 2 8

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SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 Which **one** of the following is a characteristic of symmetric information?

- ☒ **A** Buyers have more information than sellers
- ☒ **B** Sellers have more information than buyers
- ☒ **C** Buyers and sellers have the same level of information
- ☒ **D** Buyers and sellers experience market failure

(Total for Question 1 = 1 mark)

2 70 million citizens in Bangladesh live in areas where there is a risk of flooding.

The Government of Bangladesh plans to spend $400 billion to build 600 kilometres of sea defences.

Sea defences are an example of which **one** of the following?

- ☒ **A** Consumer goods
- ☒ **B** Free goods
- ☒ **C** Private goods
- ☒ **D** Public goods

(Total for Question 2 = 1 mark)

3 The cross elasticity of demand for Pepsi Cola with respect to a change in the price of Coca-Cola is estimated to be +0.62 in North America.

Which **one** of the following can be deduced from this information?

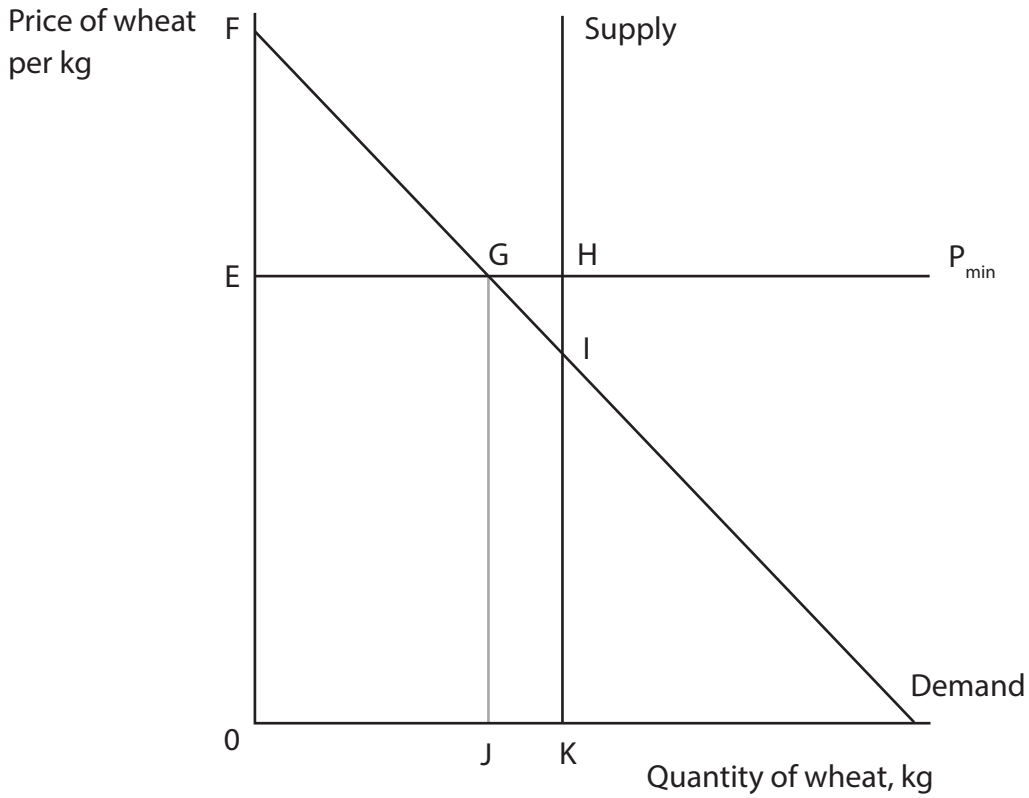
- ☒ **A** Pepsi Cola and Coca-Cola are complements
- ☒ **B** Pepsi Cola and Coca-Cola are substitutes
- ☒ **C** Pepsi Cola and Coca-Cola are unrelated goods
- ☒ **D** Pepsi Cola and Coca-Cola are normal goods

(Total for Question 3 = 1 mark)

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4 The diagram represents the market for wheat in India. The Government of India operates a minimum price scheme for wheat. It agrees to buy any surpluses from farmers at the minimum price of 0E.



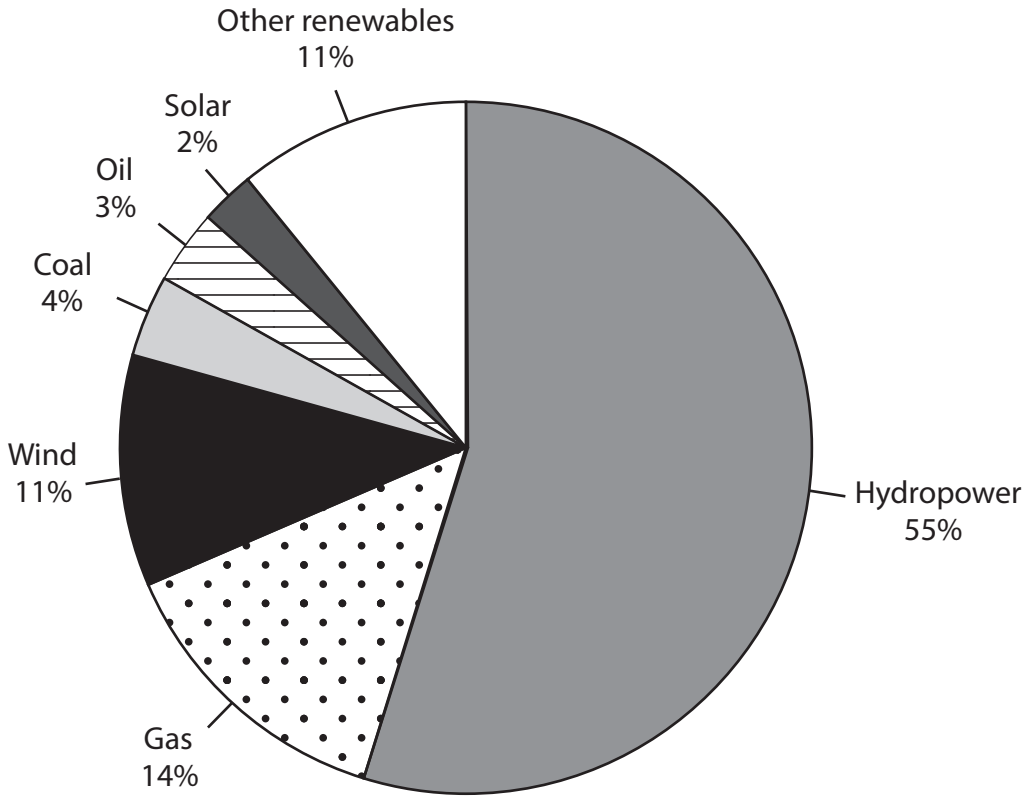
Which **one** of the following can be deduced from this information?

- ☒ **A** The Government will spend GHKJ
- ☒ **B** The Government will spend EFG
- ☒ **C** The Government will spend GHI
- ☒ **D** The Government will spend EHK0

(Total for Question 4 = 1 mark)

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5 The chart shows the sources of electricity generation for Brazil in 2021.



Which **one** of the following can be deduced from the chart?

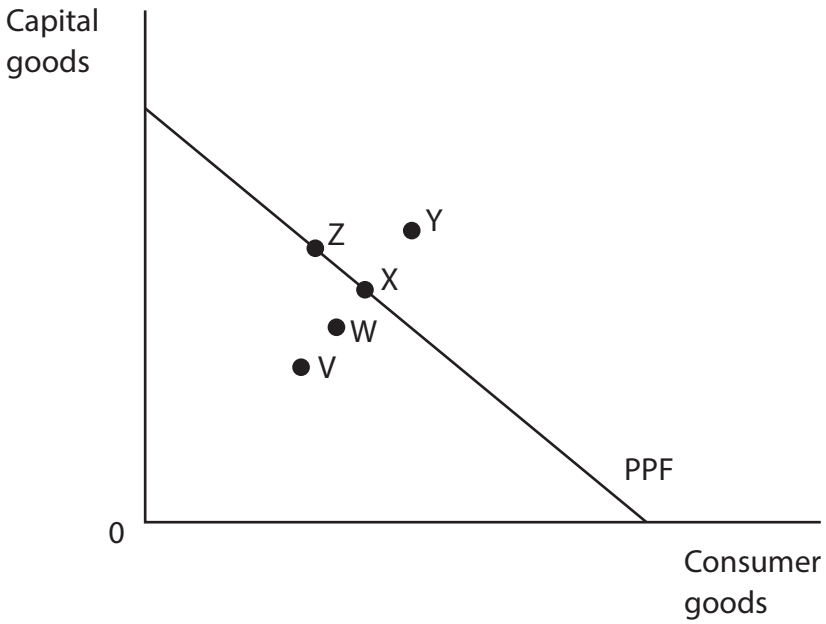
- ☒ **A** Electricity is mostly generated from non-renewable resources
- ☒ **B** Electricity is mostly generated from renewable resources
- ☒ **C** 21% of electricity is generated using renewable resources
- ☒ **D** 79% of electricity is generated using non-renewable resources

(Total for Question 5 = 1 mark)

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6 The diagram shows the production possibility frontier (PPF) for a small country.



Which **one** of the following can be deduced from the diagram?

- ☒ **A** The movement from Z to Y is obtainable using currently available resources
- ☒ **B** The movement from Z to X has an opportunity cost in terms of consumer goods
- ☒ **C** The movement from V to W results in a decrease in unemployment
- ☒ **D** The movement from X to W results in an increase in efficiency

(Total for Question 6 = 1 mark)

TOTAL FOR SECTION A = 6 MARKS

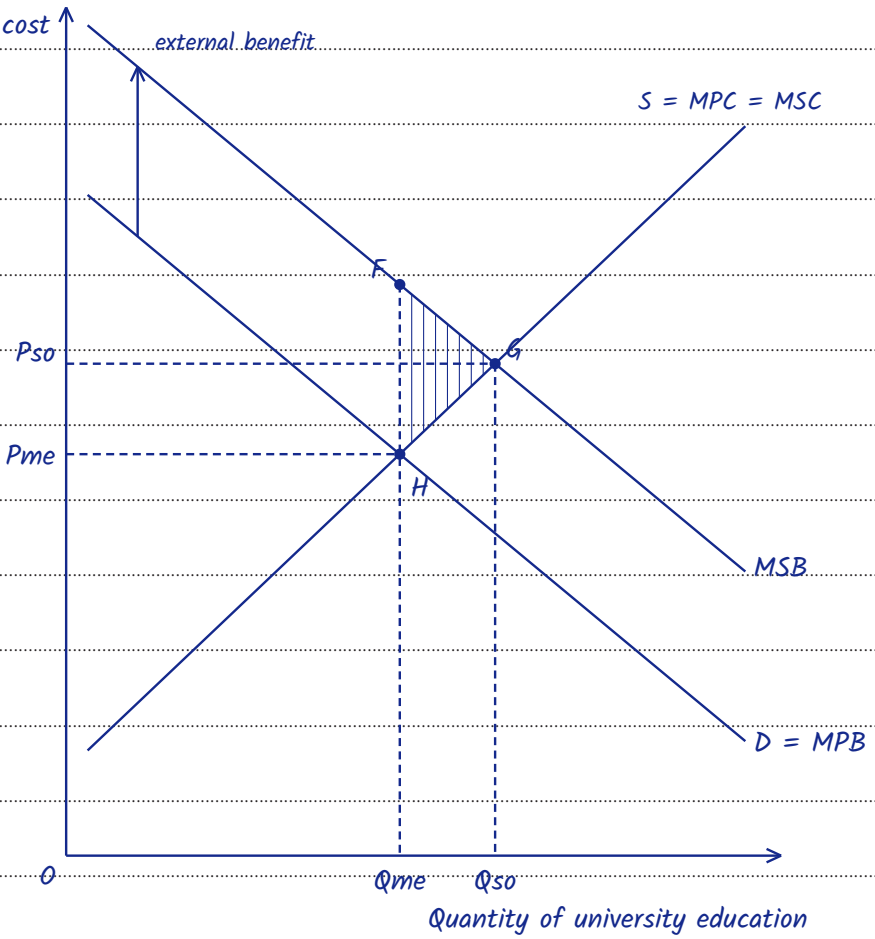
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SECTION B

Answer ALL questions in this section. Write your answers in the spaces provided.

7 According to research, university education results in substantial external benefits. These include longer life expectancy, less crime, lower welfare payments and the adoption of new technology.

Draw a diagram to illustrate these external benefits.



Because the external benefits (longer life expectancy, less crime, lower welfare payments and new technology) go to third parties, MSB lies above MPB. The free market consumes at Qme, where MPB = MPC, at price Pme, but the social optimum is Qso at Pso, where MSB = MSC. So university education is underconsumed by Qso – Qme, the external benefit per unit is FH, and the shaded area FGH is the welfare loss (the welfare gain if consumption rose to Qso).

(Total for Question 7 = 4 marks)

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8 Unilever, a manufacturer of food, personal care and home care products, experienced an increase in total costs of €4.4 billion in 2022. As a result, the company raised its prices, on average, by 13.2% in Europe. Consequently, there was a 6.8% decrease in the number of items sold by Unilever because consumers switched to cheaper alternatives.

With reference to this information, explain what is meant by the term 'rational decision making'.

Rational decision making means that economic agents act in their own self-interest to get the greatest benefit from their limited resources: consumers aim to maximise their utility (satisfaction) from a given income, and firms aim to maximise their profits.

Unilever acted rationally as a producer. Its total costs rose by €4.4 billion in 2022, so to protect its profits it raised its prices in Europe by 13.2% on average. Because the number of items sold fell by only 6.8%, a smaller percentage than the price rise, demand was price inelastic, so its total revenue rose and helped cover the higher costs.

Consumers also acted rationally. Faced with prices 13.2% higher, they switched to cheaper alternatives that give similar satisfaction for less money. This gives them better value for money and leaves more of their income to buy other goods, so they maximise their total utility, which is why Unilever sold 6.8% fewer items.

(Total for Question 8 = 4 marks)

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9 In 2022 the Government of Zimbabwe introduced a tax on energy drinks of $0.05 per litre and a tax on smartphones of $50 per device. In 2023 the Government increased its VAT (consumption tax) rate from 14.5% to 15%.

With reference to Zimbabwe, explain the difference between a 'specific tax' and an 'ad valorem tax'.

A specific tax is a fixed amount of tax charged per unit of a good, whatever its price. In Zimbabwe the tax on energy drinks of $0.05 per litre and the tax on smartphones of $50 per device are specific taxes: a $200 phone and a $1 000 phone both pay $50. A specific tax shifts the supply curve to the left by the same vertical distance at every quantity, so the new supply curve is parallel to the old one.

An ad valorem tax is a percentage of the price of the good, so the amount of tax paid per unit rises as the price rises. VAT in Zimbabwe, raised from 14.5% to 15% in 2023, is an ad valorem tax: at 15% a $200 item pays $30 of tax but a $1 000 item pays $150. An ad valorem tax makes the supply curve pivot to the left, so the gap between the old and new supply curves gets wider at higher prices.

So the difference is that a specific tax is a set money amount per unit, while an ad valorem tax is a percentage of the price.

(Total for Question 9 = 4 marks)

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10 The table shows the global volume of olive oil produced in tonnes and the global price of olive oil per tonne in 2021 and 2022.

Year	Volume of olive oil produced in tonnes	Price of olive oil, per tonne
2021	2.93m	$4 125
2022	3.27m	$5 145

Ceteris paribus, calculate the price elasticity of supply for olive oil. Show your workings.

Price elasticity of supply (PES) = % change in quantity supplied ÷ % change in price

% change in quantity supplied = (3.27m − 2.93m) ÷ 2.93m × 100

= 0.34 ÷ 2.93 × 100 = 11.60%

% change in price = ($5 145 − $4 125) ÷ $4 125 × 100

= 1 020 ÷ 4 125 × 100 = 24.73%

PES = 11.60 ÷ 24.73 = 0.47 (2 d.p.)

PES is positive and less than 1, so the supply of olive oil is price inelastic; the 24.73% rise in price led to a less than proportional 11.60% rise in quantity supplied, as olive trees take years to grow and output cannot be increased quickly.

(Total for Question 10 = 4 marks)

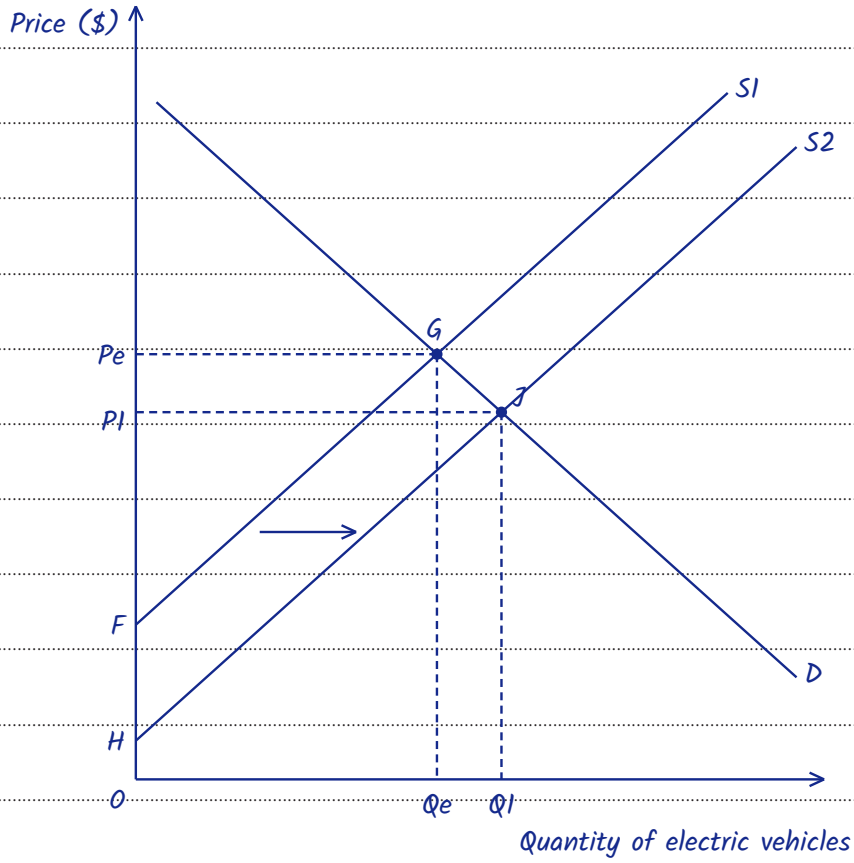
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11 Between 2017 and 2022 the cost to produce a Tesla electric vehicle decreased, on average, from $84 000 to $36 000. Other electric vehicle manufacturers experienced similar reductions in production costs.

Ceteris paribus, explain the likely impact of this change in production costs on producer surplus in the electric vehicle market.

Illustrate your answer with a supply and demand diagram.

Producer surplus is the difference between the price producers actually receive for a good and the lowest price they would be willing to accept to supply it (their cost of supply).



The fall in the cost of producing a Tesla from $84 000 to $36 000 (a 57% fall), shared by other manufacturers, shifts supply to the right from S1 to S2. Price falls from Pe to P1 and quantity rises from Qe to Q1. Producer surplus increases from area FGPe to the larger area HJP1, because the gap between price and the cost of supply widens on each car and more cars are sold.

(Total for Question 11 = 4 marks)

TOTAL FOR SECTION B = 20 MARKS

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SECTION C

Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 12.

Write your answers in the space provided on the following pages.

12 (a) Define the term 'price elasticity of demand'. (Figure 2)

(2)

(b) Between 2020 and 2021 real incomes increased by 6.8% in Beijing.

With reference to Figure 2, explain whether chicken is a normal good or an inferior good.

(4)

(c) With reference to Figure 1 and the first paragraph of Extract A, analyse **one** demand reason and **one** supply reason why the price of chicken increased by 147% between May 2020 and May 2022.

Illustrate your answer with a supply and demand diagram.

(6)

(d) With reference to the second and third paragraphs of Extract A, examine **two** external costs associated with chicken production.

(8)

(e) With reference to Extract B and your own knowledge, discuss the impact of the introduction of an indirect tax on 'junk food'.

Illustrate your answer with an appropriate diagram.

(14)

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12 (a) Define the term 'price elasticity of demand'. (Figure 2)

(2)

Price elasticity of demand is the responsiveness of quantity demanded of a good to a change in its price, measured as % change in quantity demanded ÷ % change in price. For chicken in Beijing PED is −0.55, so demand is price inelastic.

(b) Between 2020 and 2021 real incomes increased by 6.8% in Beijing.

With reference to Figure 2, explain whether chicken is a normal good or an inferior good.

(4)

A normal good has a positive income elasticity of demand (YED), so an increase in income leads to an increase in demand. An inferior good has a negative YED, so an increase in income leads to a decrease in demand as consumers switch to better quality alternatives.

Figure 2 shows the YED for chicken in Beijing is +1.04. As this is positive, chicken is a normal good, and as it is greater than 1 it is also a luxury good (income elastic).

With real incomes rising by 6.8% between 2020 and 2021, demand for chicken would be expected to rise by 6.8 × 1.04 = 7.07%, a more than proportional increase in demand.

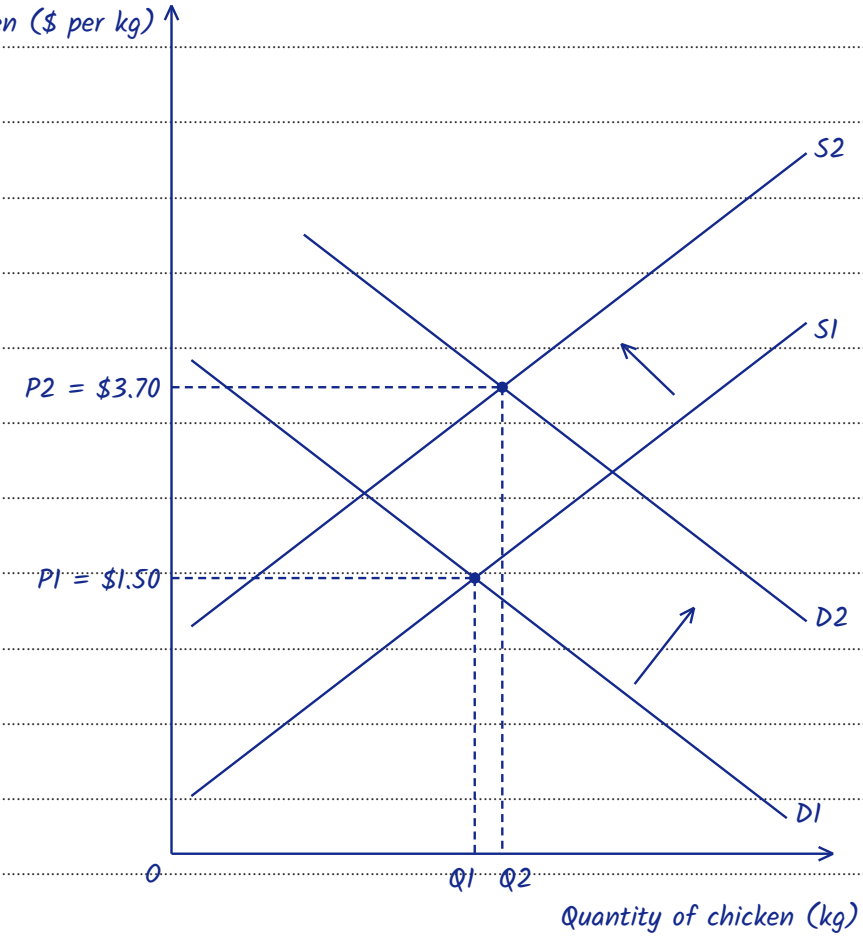
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(c) With reference to Figure 1 and the first paragraph of Extract A, analyse **one** demand reason and **one** supply reason why the price of chicken increased by 147% between May 2020 and May 2022.

Illustrate your answer with a supply and demand diagram.

(6)

Figure 1 shows that the price of chicken rose from about $1.50 per kg in May 2020 to about $3.70 per kg in May 2022, an increase of 147%. This was caused by both an increase in demand and a decrease in supply.



The demand reason is a change in tastes. Extract A states that chicken became a more popular choice for consumers because it is considered a healthier option than other meats. More consumers want to buy chicken at every price, so demand shifts to the right from D1 to D2. At the original price of $1.50 there is now excess demand, so the price is bid up.

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The supply reason is an increase in the costs of production. Problems in corn and wheat production caused a 20% increase in the cost of chicken feed, which is a major cost for farmers, so at every price they are willing to supply less. In addition, the outbreak of bird flu meant 140 million chickens globally could not be sold for consumption, directly cutting the amount available. Both shift supply to the left from S1 to S2, causing a further shortage at the original price.

Together the two shifts raise the equilibrium price from P1 ($1.50) to P2 ($3.70). Because demand is shifting right while supply shifts left, the effect on quantity is uncertain: here it rises slightly from Q1 to Q2, but the price increase is large because both shifts push the price in the same direction. As demand for chicken is price inelastic (PED −0.55), the fall in supply causes a larger rise in price than in a market with elastic demand.

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(d) With reference to the second and third paragraphs of Extract A, examine **two** external costs associated with chicken production.

(8)

External costs are the costs of production or consumption that fall on third parties who are not involved in the transaction and are not compensated, so that the marginal social cost of producing chicken (MSC = MPC + external cost) is greater than the marginal private cost to the farmer.

The first external cost is carbon dioxide emissions. Producing one kilogram of chicken produces 0.7kg of carbon dioxide, and with 345 billion kg of chicken produced each year this is about 0.7 × 345 = 241.5 billion kg of CO2 a year. These greenhouse gas emissions add to global warming, which raises sea levels and increases the risk of flooding, droughts and wildfires. Third parties around the world suffer damage to their homes, crops and health, and governments must spend more on flood defences and disaster relief.

However, the cost may be smaller than it first appears. Chicken probably produces far less CO2 per kg than other meats such as beef, so if consumers eat chicken instead of red meat, total emissions may fall. The damage is also long-run and global, so it is very difficult to put a money value on it.

The second external cost is the use of water. Each kilogram of chicken uses 957 litres of water, so global production uses around 330 trillion litres a year. This leaves less water in rivers and lakes, making water scarcer for local households, other farmers and wildlife. Water prices may rise for households, crop yields of other farmers may fall, and habitats may be damaged. Similarly, using 0.9kg of grain per kg of chicken means more land must be farmed, which can lead to deforestation and habitat loss.

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However, Extract A says that compared with 1965, producing the same amount of chicken has a 50% less negative impact on the environment, so external costs per kg have halved (from around 1 900 litres of water and 1.4kg of CO2 per kg) and may keep falling as technology improves. The water cost also depends on where the chickens are farmed: it is much more serious in water-scarce regions than in wet ones. Overall, CO2 emissions are probably the more significant external cost because they are global and long-lasting, while water scarcity is more local.

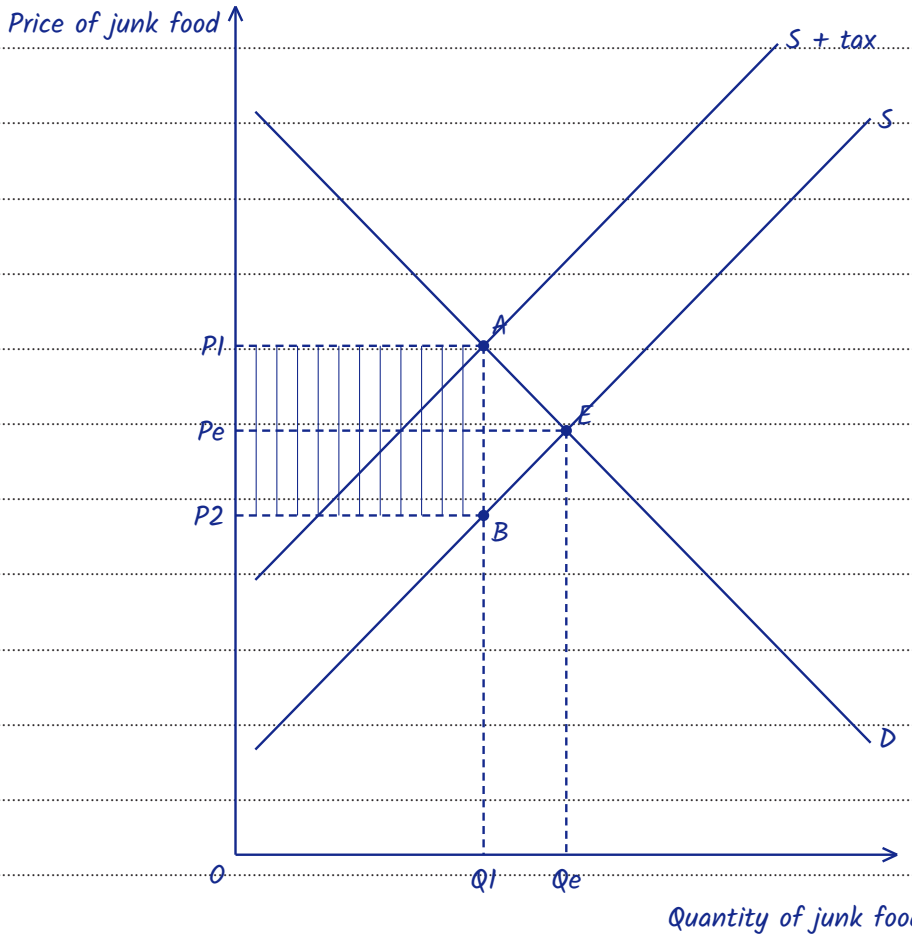
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(e) With reference to Extract B and your own knowledge, discuss the impact of the introduction of an indirect tax on 'junk food'.

Illustrate your answer with an appropriate diagram.

(14)

An indirect tax is a tax on expenditure, paid to the government by the producer, which raises firms' costs of production. Junk food is food high in calories, salt, sugar or fat and low in nutrients, such as burgers, fried chicken, pizza, chips and ice cream. Its consumption creates external costs: the WHO estimated it contributed to 770 million people being obese in 2020, rising to over 1 billion by 2030, and obesity raises the risk of cancer, heart disease and diabetes.



As shown in the diagram, the tax raises firms' costs, so supply shifts to the left from S to S + tax by the amount of the tax per unit (AB). The price paid by consumers rises from Pe to P1, the price kept by producers falls to P2, and quantity falls from Qe to Q1. The government earns tax revenue equal to the shaded area P2BAP1: consumers pay the part PePI per unit and

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producers the part P2Pe.

Because junk food becomes more expensive relative to healthy food, consumers buy less of it, which reduces obesity and the external costs of treating related illness, which accounts for 8.4% of healthcare spending in developed countries. This frees up healthcare funds for other treatments and moves consumption closer to the socially optimal level. The evidence supports this: in Hungary consumption of taxed foods fell by 73%, and in Mexico junk food consumption fell by 7% between 2013 and 2018. In Hungary demand for substitutes such as bottled water, fruit and vegetables increased, boosting those markets. The tax revenue can also be spent on health education or treating obesity.

However, firms lose. Their revenue falls from area 0PeEQe to 0P2BQ1 and producer surplus falls, so some may cut output and jobs. In Denmark the fat tax raised food prices and caused job losses, and the tax was abandoned after only a year, so it had little lasting effect.

The size of the impact depends on the price elasticity of demand. Junk food may be habit forming and demand may be price inelastic, so the tax would mainly raise prices rather than cut consumption, and most of the incidence would fall on consumers. The Mexican fall of only 7% over five years suggests this. The tax would then raise revenue but do little for health. The tax is also regressive, taking a larger share of the income of low-income households, who spend more of their income on cheap food.

It is also difficult to value the external costs, and figures such as the WHO estimates may be inaccurate, so the government may set the tax too high or too low, a form of government failure. Firms may reformulate meals to cut fat, salt and sugar to avoid the tax, which would be a benefit, but consumers may also switch to untaxed unhealthy foods. With the fast food

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market growing from $862 billion to $972 billion and expected to reach $1 467 billion by 2028, a small tax may not be enough.

Overall, an indirect tax on junk food can reduce consumption and obesity, as in Hungary, and raise revenue, but its impact depends on the size of the tax and the PED of junk food. It is likely to be most effective in the long run and when combined with other policies such as health education and subsidies for healthy food, as suggested by the WHO.

(Total for Question 12 = 34 marks)

TOTAL FOR SECTION C = 34 MARKS

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SECTION D

Answer ONE question from this section.

Write your answer in the space provided.

EITHER

13 According to a German insurance company, global natural disasters have become more common in recent years. For example, there was an increase in natural disasters from 400 in 1990 to 820 in 2019.

Evaluate the microeconomic effects of an increase in the number of natural disasters.

Include at least one appropriate diagram in your answer.

(Total for Question 13 = 20 marks)

OR

14 In 2022 General Motors received a $1 billion subsidy from the US Government to open two new electric vehicle factories in the USA. This was expected to generate 4 000 new jobs.

Evaluate the microeconomic effects of subsidies paid to electric vehicle manufacturers.

Include at least one appropriate diagram in your answer.

(Total for Question 14 = 20 marks)

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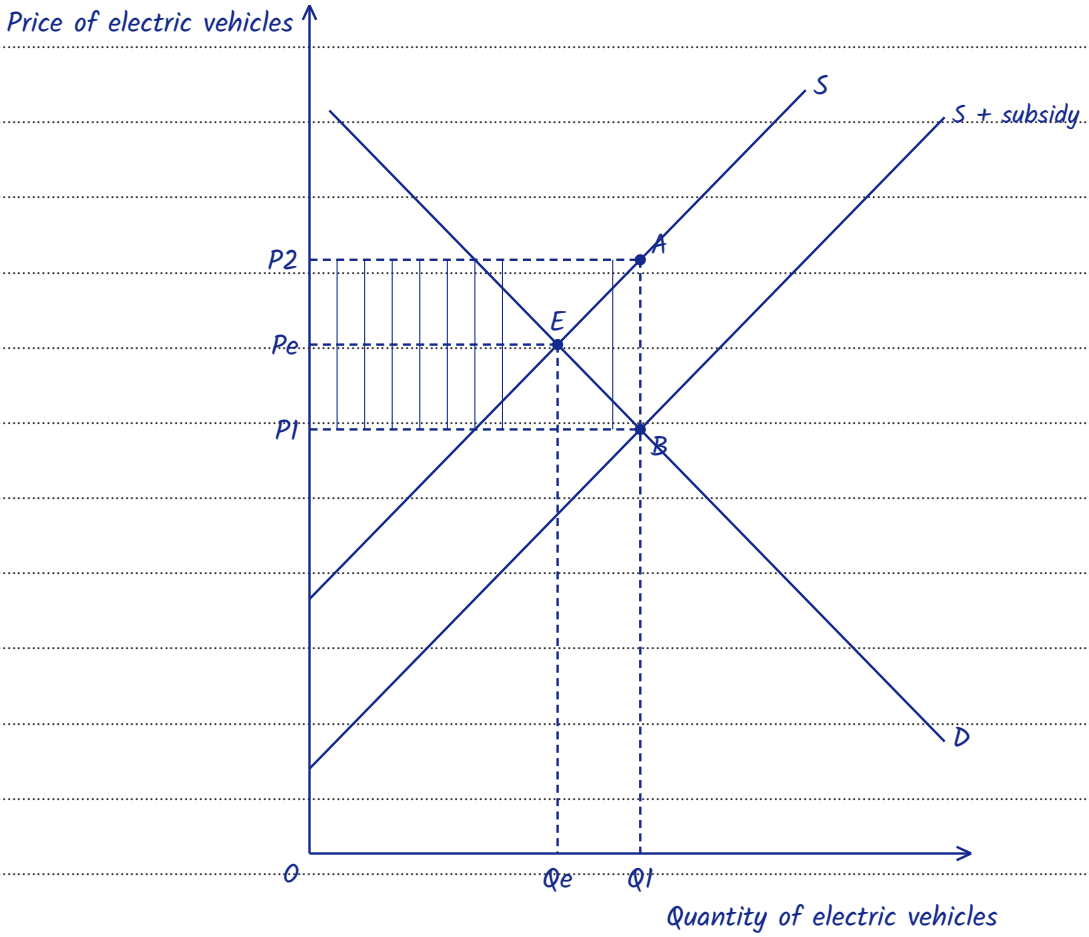
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Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

Chosen question number: **Question 13** ☐ **Question 14** ☒

Write your answer here:

A subsidy is a payment from the government to producers, usually per unit of output, which lowers their costs of production. In 2022 General Motors received a $1 billion subsidy from the US Government to open two new electric vehicle (EV) factories, expected to create 4 000 new jobs.



The subsidy shifts the supply of EVs to the right from S to S + subsidy, by the subsidy per unit AB. The market price falls from Pe to P1 and the quantity of EVs bought and sold rises from Qe to Q1. Producers receive P2 per car (P1 plus the subsidy), and the total cost to the government is the shaded area P1BAP2.

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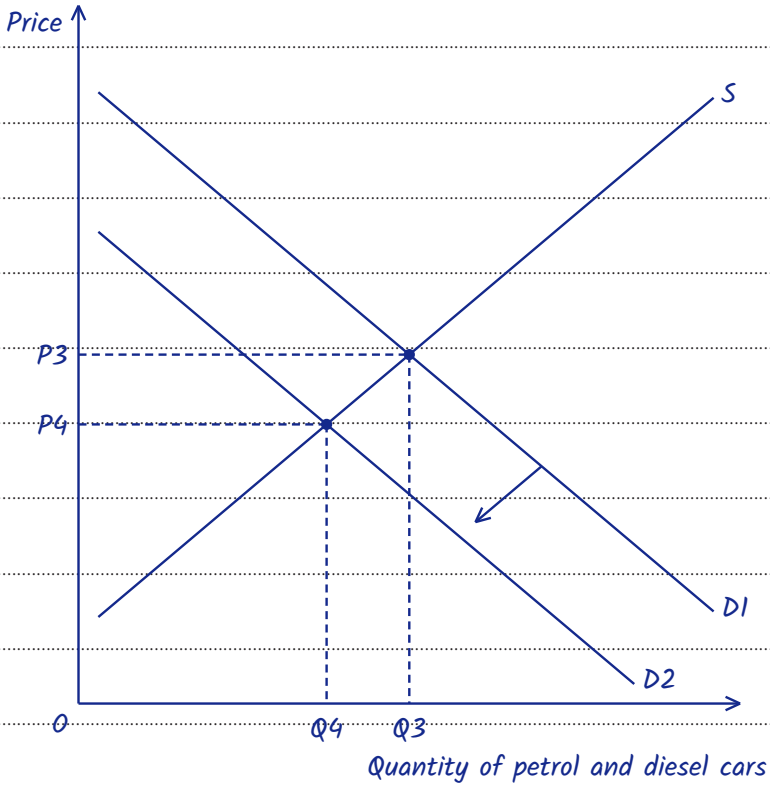
Consumers benefit from lower EV prices. Consumer surplus increases by the area PeEBPI, as existing buyers pay less and extra buyers can now afford an EV. This raises their real incomes, and because EVs and petrol cars are substitutes, many consumers switch away from petrol and diesel cars.

Producers such as General Motors also gain. They receive P2 rather than Pe per car and sell more, so revenue rises from 0PeEQe to 0P2AQ1 and producer surplus and profits increase. The extra profit can be reinvested in research into batteries, which lowers long-run costs and shifts supply further to the right.

Workers gain from the 4 000 new jobs at the two factories, so unemployment falls in those areas. The cost to the government is $1 billion ÷ 4 000 = $250 000 per job created. Workers will spend their wages in local businesses, creating further jobs, and suppliers of components such as batteries will see an increase in demand, as these are complements to EVs.

There are also wider effects on other markets and the environment. As EVs are a substitute for petrol and diesel cars, demand for petrol and diesel cars shifts to the left, as shown below, so their price and output fall from P3 to P4 and Q3 to Q4.

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Firms producing petrol and diesel cars will see revenue and profits fall, and workers in these firms may lose their jobs. On the other hand, EVs produce no exhaust emissions, so replacing petrol and diesel cars reduces air pollution and carbon dioxide emissions. This reduces the external costs of motoring, such as respiratory illness and global warming, so the subsidy helps to correct a market failure.

However, the subsidy has an opportunity cost. The $1 billion could instead have been spent on healthcare, education or infrastructure, or used to cut taxes, and it may have to be funded by higher taxes or borrowing. If subsidies were paid to all EV manufacturers rather than just General Motors, the cost to the government would be far higher. $250 000 per job is very expensive, and is only worthwhile if the jobs are long-lasting.

The number of jobs may also be smaller or larger than expected. Car production is capital intensive, using robots and automated assembly lines, so the factories may employ fewer people than promised. On the other hand, indirect jobs at suppliers and in local businesses mean the

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total could be well above 4 000. The net effect on employment also depends on how many jobs are lost in petrol and diesel car production, so the subsidy may simply move jobs from one market to another.

The environmental benefits depend on how electricity is generated. If it comes from coal or gas, charging EVs still creates large carbon dioxide emissions, so the external benefits are smaller than they first appear. Building two new factories and mining the lithium for batteries also causes environmental damage in the short run.

The size of the effect on price and quantity depends on elasticities. If supply of EVs is price inelastic in the short run, because new factories take years to build, output will rise only slowly. If demand is price elastic, most of the subsidy goes to consumers as a lower price and sales rise strongly; if inelastic, firms keep more of the subsidy as extra profit.

There is also a risk of government failure. Firms may become dependent on the subsidy and complacent about cutting costs, so the industry may be unable to survive if the subsidy is removed. It may also be unfair on manufacturers outside the USA that do not receive subsidies, distorting competition. The government may also lack information on the right size of subsidy, so it may over or under-subsidise.

In conclusion, subsidies to EV manufacturers lower prices, raise output, create jobs and reduce external costs, so they are likely to benefit consumers, General Motors and the environment. However, the gains must be weighed against the $1 billion opportunity cost and the job losses in petrol and diesel car production. On balance the subsidy is likely to be beneficial in the long run, especially if electricity comes increasingly from renewable sources and the subsidy is reduced over time as EV costs fall, because then the industry can stand on its own while society keeps

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the environmental benefits.

TOTAL FOR SECTION D = 20 MARKS
TOTAL FOR PAPER = 80 MARKS

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Pearson Edexcel International Advanced Level

Tuesday 9 January 2024

Afternoon (Time: 1 hour 45 minutes)

Paper reference **WEC11/01**

Economics

International Advanced Subsidiary

UNIT 1: Markets in action

Source Booklet

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Sources for use with Section C

The markets for chicken and 'junk food'

Figure 1

Global price of chicken, $ per kilogram, May 2020 to May 2022

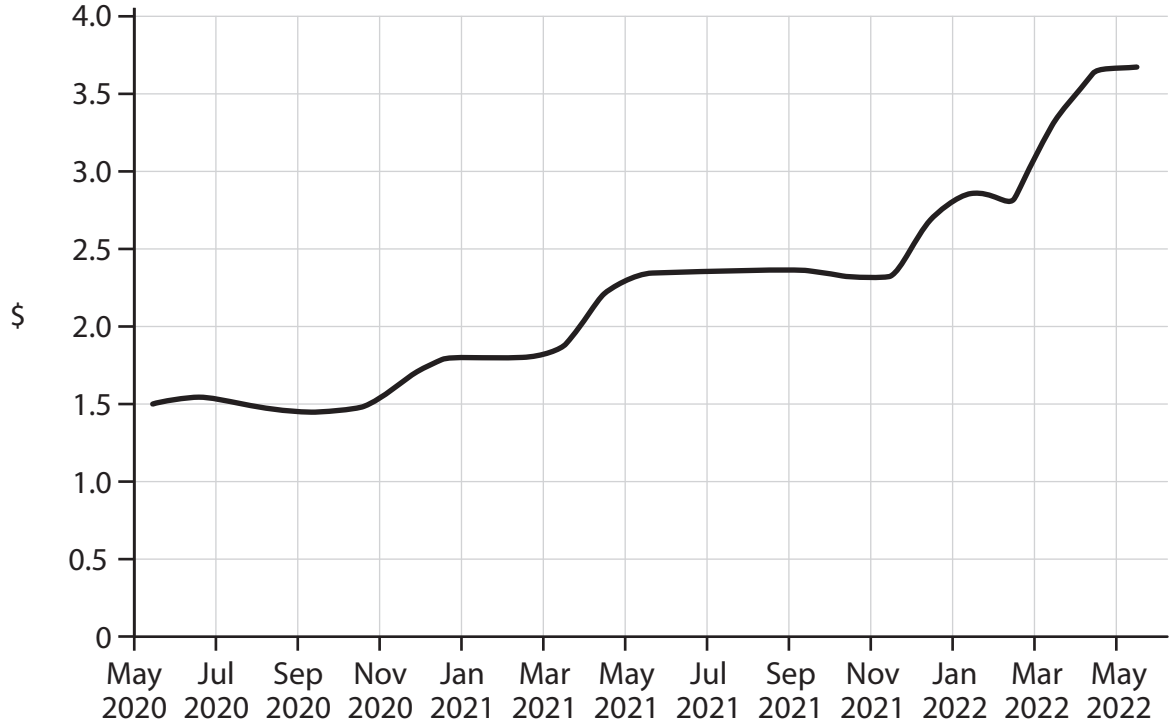


Figure 2

Estimated price elasticity of demand and estimated income elasticity of demand for chicken in Beijing, China for 2021

Price elasticity of demand	−0.55
Income elasticity of demand	+1.04

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Extract A The global price of chicken

Between May 2020 and May 2022 the price of chicken increased by 147%. Problems in corn and wheat production resulted in a 20% increase in the cost of chicken feed. In addition, an outbreak of bird flu meant that, between October 2021 and December 2022, 140 million chickens globally could not be sold for consumption. At the same time, chicken became a more popular choice for consumers because it is considered to be a healthier option than other meats.

The production of one kilogram (kg) of chicken:
- uses 957 litres of water
- uses 0.9kg of grain to feed the chickens
- produces 0.7kg of carbon dioxide.

Globally, 345 billion kg of chickens are produced per year. Consequently, chicken production has a substantial impact on the environment. However, compared to 1965, producing the same amount of chicken has a 50% less negative impact on the environment.

Extract B 'Junk food' consumption

'Junk food' is a term used for foods that are high in calories, salt, sugar or fat and are low in nutrients. It includes burgers, fried chicken, pizza, chips and ice cream. Between 2020 and 2021, the global market for fast food (that includes junk food) grew from $862 billion to $972 billion and it is expected to grow further to $1 467 billion by 2028. The World Health Organization (WHO) estimated that junk food contributed to 770 million people being obese in 2020. By 2030 it estimates that there will be over 1 billion obese people. Obesity increases the risk of cancer, heart disease and diabetes. In developed countries, treating obesity-related issues accounts for 8.4% of expenditure on healthcare.

Several governments have introduced taxes on junk food. For example:

- In 2011 the Government of Denmark introduced a tax on foods containing high levels of fat. This caused an increase in the price of these foods and resulted in job losses. As a result, the Government abandoned this tax in 2012
- In 2011 the Government of Hungary imposed taxes on food containing high levels of salt and sugar. This resulted in a 73% reduction in consumption of these foods. Demand for bottled water, fruit and vegetables increased
- In 2013 the Government of Mexico introduced a tax on high-calorie foods. This resulted in a 7% decline in junk food consumption between 2013 and 2018.

The WHO has recommended that more countries should introduce indirect taxes on junk food as a means of improving health.

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Acknowledgements

Figure 1 adapted from: https://www.indexmundi.com/commodities/?commodity=chicken&months=60

Figure 2 adapted from: 'Impact of population age structure on food consumption structure of residents in Beijing', Lingyun Duan, Wen Yu and Wei Chen, 28 October 2021, Journal of Economic Impact, https://www.researchgate.net/publication/357312162_Impact_of_Population_Age_Structure_on_Food_Consumption_Structure_of_Residents_in_Beijing

Extract A adapted from:

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'Avian flu has led to the killing of 140m farmed birds since last October', 9 December 2022, Sophie Kevany, Guardian, https://www.theguardian.com/environment/2022/dec/09/avian-flu-has-led-to-the-killing-of-140m-farmed-birds-since-last-october

'3 reasons worldwide chicken prices will increase', 31 May 2022, Ramon Tomey, Natural News, https://www.naturalnews.com/2022-05-31-3-reasons-worldwide-chicken-prices-will-increase.html

Extract B adapted from:

'Fast Food Market size, share and COVID-19 impact analysis', March 2022, Fortune Business Insights, https://www.fortunebusinessinsights.com/fast-food-market-106482

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