



Oxford Cambridge and RSA

Tuesday 13 May 2025 – Morning

AS Level Economics

H060/01 Microeconomics

Time allowed: 1 hour 30 minutes



You can use:

- a scientific or graphical calculator



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

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Last name

StemUp Model Solution

INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided. If you need extra space use the lined pages at the end of this booklet. The question numbers must be clearly shown.
- Answer **all** the questions in Section A and Section B and **one** question in Section C.

INFORMATION

- The total mark for this paper is **60**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document has **20** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A

Write your answer for **each** question in the box provided.

1 Whose objective is it to raise tax revenue?

- A Employees
- B Firms
- C Government
- D Households

Your answer

C

[1]

2 The table shows the production possibility curve for a country that produces capital and consumer goods.

Capital goods (million units)	Consumer goods (million units)
0	50
10	35
20	23
30	8
40	0

What is the opportunity cost of moving from 20 million units of capital goods to producing 30 million units of capital goods?

- A 10 million capital goods
- B 20 million capital goods
- C 8 million consumer goods
- D 15 million consumer goods

Your answer

D

[1]

3 What is **most** likely to occur, if the price of a smartphone fell from £950 to £800?

- A Demand curve shifts right
- B Extension in demand
- C Extension in supply
- D Supply curve shifts left

Your answer

B

[1]

4 Which of these would cause a shift outwards of the production possibility curve?

- A Decrease in productivity
- B Increase in unemployment
- C Technological improvements
- D Underutilisation of machinery

Your answer

C

[1]

5 A bottled water firm sells 600 bottles of water every week at a price of 80p.
The price elasticity of demand for bottled water is -1.5 .
What is the change in weekly sales revenue if the firm increases the price to £1.20?

- A £60
- B £240
- C £300
- D £600

Your answer

C

[1]

6 A change in price will usually result in a change in quantity demanded.
The size of this change will be determined by the:

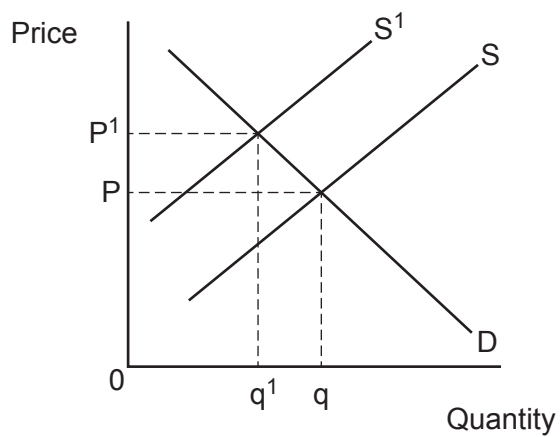
- A elasticity of demand
- B opportunity cost of the change
- C producer surplus available
- D profit gained from the change

Your answer

A

[1]

- 7 The diagram shows a shift in the supply curve for wheat production.



What could have caused this shift from S to S^1 ?

- A Increase in price
- B Increase in productivity
- C Increase in subsidy
- D Increase in tax

Your answer

D

[1]

- 8 What is a reward for labour?

- A Interest
- B Profit
- C Rent
- D Wages

Your answer

D

[1]

- 9 What is an example of market failure?

- A Buffer Scheme
- B Pollution
- C Subsidies
- D Taxes

Your answer

B

[1]

10 What will be an incentive for consumers to reduce consumption of orange juice?

Increase in the price of:

- A apple juice
- B apples
- C orange juice
- D oranges

Your answer

C

[1]

11 What is one of the features of a planned economy?

- A Capitalism
- B Government intervention
- C Invisible hand
- D Market clearing price

Your answer

B

[1]

12 The table shows the price of good A and the quantity demanded for good B, a competitive good.

Price of Good A	Quantity Demanded of Good B
£160	500
£200	560

What is the cross elasticity of demand?

- A 0.48
- B 0.54
- C 0.67
- D 2.08

Your answer

A

[1]

- 13 Government intervention in the market can result in government failure due to a more inefficient allocation of resources.

What is this **most** likely to result in?

- A Fewer public goods
- B Greater welfare loss
- C Higher levels of taxation
- D Less information provision

Your answer

B

[1]

- 14 Productive efficiency is when a firm is:

- A maximising the total costs of production
- B maximising its profits and revenue
- C producing goods and services that match consumer preferences
- D producing maximum outputs from the given inputs

Your answer

D

[1]

- 15 Opportunity cost is useful as it shows the value of:

- A all the choices available
- B the choice given up
- C the choice of scarce resources
- D the choice that the consumer made

Your answer

B

[1]

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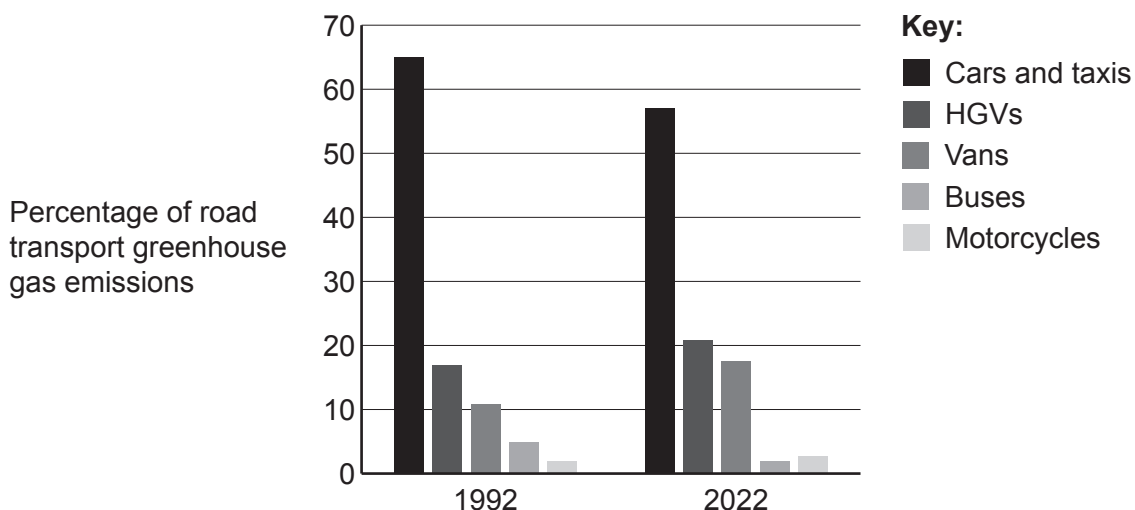
Section B

Electric cars speed ahead

In 2022, road transport accounted for approximately 21% of the UK's total greenhouse gas emissions. The largest contributor to this was cars and taxis as shown in Fig. 1.

Fig. 1

Percentage of road transport greenhouse gas emissions contributed by different forms of road transport 1992 and 2022.



In 2022, the sale of new cars in the UK dropped. The demand for new electric cars, which are environmentally cleaner than petrol or diesel cars continued to increase.

Fig. 2 shows the increase in sales for new electric cars in the UK.

Fig. 2

Year	No. of new electric cars sold
2018	15 500
2019	37 850
2020	108 200
2021	190 700
2022	267 000

The production of electric cars is very specialised. There are chemical engineers who work on the car batteries, process engineers who manage the production process and software engineers who design and install the software systems that are used.

The sale of new petrol and diesel cars in the UK is due to be banned in 2030. To encourage the switch away from the use of these vehicles, some economists suggest the government should promote building more charging points for electric cars. Others argue that the indirect tax imposed on electric cars should be removed. Encouragement to buy electric cars is needed as real income in the UK is forecast to continue to fall. The income elasticity of demand for electric cars is estimated to be 3.0.

Changes in the number of electric cars produced affects the market for cobalt. This is a metal used in electric car batteries. Nearly 70% of all cobalt is supplied by Democratic Republic of the Congo. Some of the country's mines do use modern technology but many provide workers with only basic equipment. Working hours in many of the mines are long and some workers are paid less than £3 a day. Working conditions are often dangerous. Some workers, including children, dig out the cobalt with their hands or sticks. Many are not provided with protective clothing and they breathe in the toxic cobalt dust. This can result in what is called cobalt lungs, a disease that can cause serious illness or death. The mines also pollute local mines and raise radioactivity levels in the local areas.

16

- (a) Using **Fig. 1**, state which form of road transport had the greatest percentage fall in greenhouse gas emissions between 1992 and 2022.

Buses: their share fell from about 5% in 1992 to about 2% in 2022, a fall of around 60%. [1]

(b)

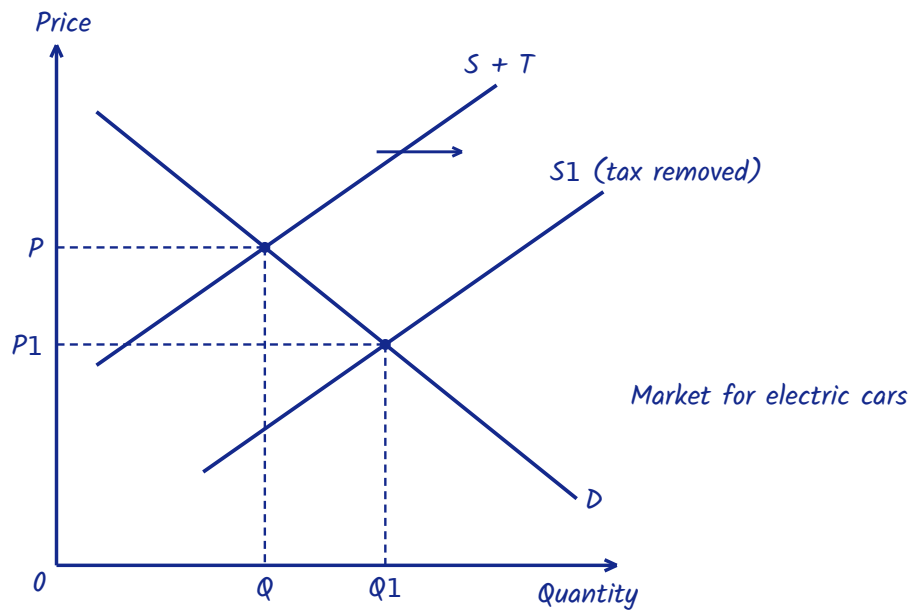
- (i) Using **Fig. 2**, calculate which year had the largest percentage rise in the number of new electric cars sold in the UK.

2020: $(108\,200 - 37\,850) \div 37\,850 \times 100 = 185.9\%$, so about 186%.
Other years: 2019 = 144.2%, 2021 = 76.2%, 2022 = 40.0%. Largest rise = 2020 (186%). [2]

- (ii) Using the extract, explain how division of labour is used in the production of electric cars.

Division of labour is where production is broken down into separate stages or tasks, with each worker specialising in one task. In electric car production, chemical engineers work only on the car batteries, process engineers manage the production process and software engineers design and install the software systems, which raises productivity. [2]

- (c) Using a diagram, explain what effect the removal of indirect tax would have on the market of electric cars.



Removing the indirect tax cuts firms' costs, so supply shifts right from $S + T$ to $S1$.
 Price falls from P to $P1$, demand extends and the quantity of electric cars bought and
 sold rises from Q to $Q1$.

[4]

(d)

- (i) Using the information on income and elasticity of demand in the extract, explain the likely effect of a continuing fall in real income on electric car producers.

Sales and revenue of electric car producers are likely to fall. YED is +3.0: it is positive,
 so electric cars are a normal good, and greater than 1, so they are a luxury (superior)
 good with income elastic demand, meaning demand is highly responsive to changes in
 income.
 A fall in real income will cause demand to fall proportionally more than income: for every
 1% fall in real income, demand falls by 3%, so a 2% fall in real income cuts demand
 by 6%. Demand shifts left, so producers sell fewer cars and their revenue and profits
 fall.

[4]

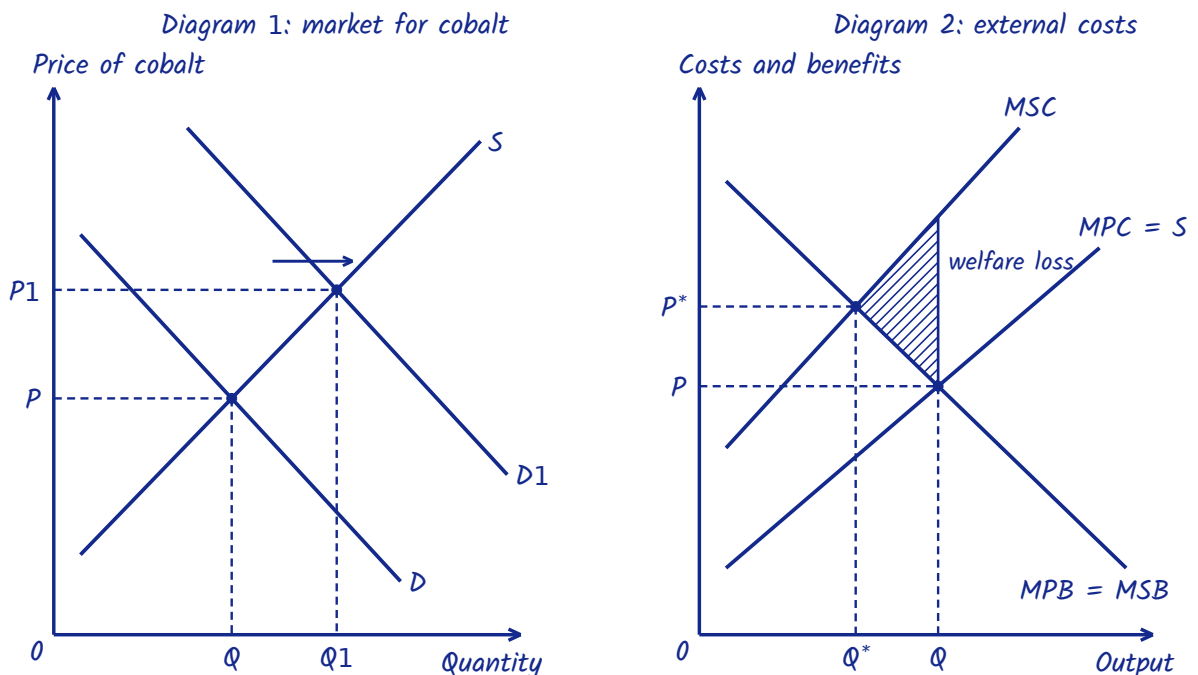
- (ii) Explain the effect on the price and quantity demanded of electric cars of an increase in the price of cobalt.

Cobalt is used in electric car batteries, so a rise in its price raises the costs of production of electric cars. Supply shifts left, so the price of electric cars rises and quantity demanded contracts (falls).

[2]

Question continues on the next page

- (e)* Evaluate, using an appropriate diagram, the effect of an increase in demand for electric cars on people in the Democratic Republic of the Congo. [10]



An increase in demand for electric cars raises the derived demand for cobalt, an essential raw material for car batteries. In Diagram 1 demand shifts from D to $D1$, raising the price of cobalt from P to $P1$ and quantity from Q to $Q1$. As nearly 70% of all cobalt is supplied by the Democratic Republic of the Congo, the impact on the DRC is large. Higher prices raise the revenue and profits of mines, which could be invested in modern machinery and protective clothing, improving working conditions. Higher output also raises the derived demand for mine workers, so employment and wages may rise above the £3 a day some workers are paid, increasing living standards. With higher family incomes, parents may no longer need to send children to work in the mines, so children could gain an education, improving human capital and their chances of higher paid jobs in the future. However, more mining means more workers breathe in toxic cobalt dust, so more people may suffer cobalt lungs, serious illness or death: a social cost. Mine owners only consider private costs and benefits, so they produce at Q , price P (Diagram 2), ignoring the external costs of pollution and raised radioactivity in local areas. If these were included, output would be the social optimum Q^* at the higher price P^* . There is overproduction of

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Section C

Answer Question 17 or Question 18.

- 17*** In 2022, the price of food on average, increased by 70%, while the price of clothing, on average, increased by 10%.

Evaluate, using an appropriate diagram(s) the impact of these changes in price on consumer surplus. [20]

OR

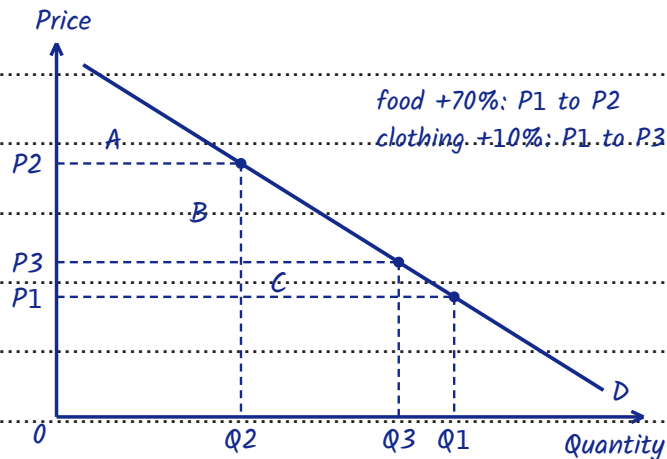
- 18*** Norway devoted more of its resources to the output of capital goods in 2022. This had an impact on the country's output of consumer goods.

Evaluate, using an appropriate diagram(s), the effect on consumers of an economy devoting more resources to the output of capital goods. [20]

Question No. ...17.....

..Consumer surplus is the difference between the price that consumers are willing to pay for a
 ..good and the price they actually pay. On a diagram it is the area below the demand curve
 ..and above the market price. When the price of a good rises, demand contracts and consumer
 ..surplus falls, because consumers pay more for each unit they still buy and some consumers
 ..stop buying the good altogether, ...
 ..In 2022 the price of food rose on average by 70%, while the price of clothing rose by only
 ..10%. Diagram 1 assumes, for comparison, that both goods start at price P_1 and quantity Q_1
 ..on the same demand curve D , so at P_1 consumer surplus is areas $A + B + C$. The 70% rise
 ..in the price of food moves price from P_1 to P_2 and demand contracts to Q_2 , so consumer
 ..surplus falls to area A only; areas B and C are lost. The much smaller 10% rise in the price
 ..of clothing moves price from P_1 to P_3 and quantity contracts only to Q_3 , so consumer surplus
 ..is $A + B$ and only area C is lost. Other things being equal, food consumers lose far more
 ..consumer surplus than clothing consumers, and as food takes a larger share of the budget of
 ..low income households, their fall in welfare is greatest, ...
 ..However, the impact does not depend only on the size of the price rise. It also depends on
 ..the price elasticity of demand (PED), the responsiveness of quantity demanded to a change in

Diagram 1



price. Food is a necessity with few substitutes overall, so its demand is price inelastic (PED

between 0 and -1). Clothing has more substitutes, such as second-hand clothes, and

purchases can be delayed, so its demand is more price elastic.

Diagram 2 shows the effect of this difference. For food, with a steep inelastic demand curve,

even a large rise in price from P to P_1 still leaves a consumer surplus of shaded area A ,

because consumers keep buying almost the same quantity and value food well above its price.

For clothing, with a flat elastic demand curve, a small rise in price from P to P_1 results in

an almost complete loss of consumer surplus, as consumers switch to substitutes or stop

buying. So the percentage loss of consumer surplus could be greater for clothing, even though

its price rose by only 10%. On the other hand, because food demand is inelastic, consumers

keep buying and the higher price on every unit is transferred from consumers to producers, so

in absolute terms food consumers still lose a large amount of consumer surplus.

The overall effect also depends on other factors. First, the availability and closeness of

substitutes; if consumers can switch to cheaper own-brand foods or cheaper clothing retailers,

less consumer surplus is lost. Second, the amount of the change in price: 70% and 10% are

averages, so some items rose by much more and others by less. Third, the time period: PED

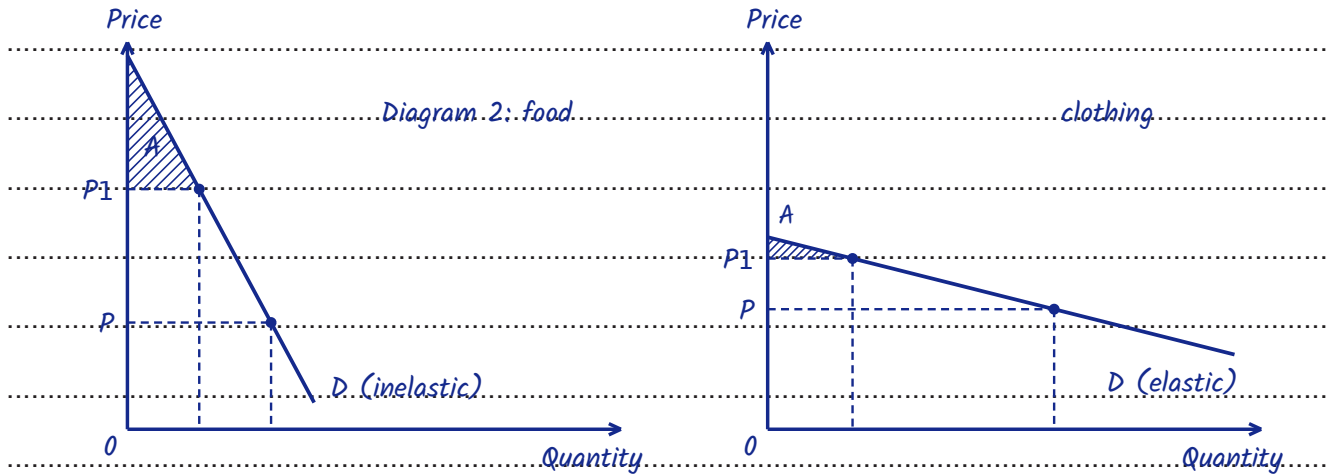
becomes more elastic over time as consumers find substitutes, so the loss is greatest in the

short run. Fourth, how the market is defined: demand for all food is very inelastic, but

demand for one food, such as beef, is more elastic. Finally, if incomes also rose, demand may

have shifted right, offsetting some of the loss.

In conclusion, both price rises reduce consumer surplus, and the 70% rise in food prices is



likely to cause the largest absolute fall, because food is a necessity bought in large quantities and consumers cannot easily switch away. However, the percentage loss for clothing could be greater because its demand is more price elastic. The impact therefore depends mainly on PED and the availability of substitutes, and is likely to be most severe for food, in the short run and for low income households.

END OF QUESTION PAPER

EXTRA ANSWER SPACE

If you need extra space use these lined pages. You must write the question numbers clearly in the margin.

16(e)

cobalt, creating a welfare loss to people in the DRC (shaded triangle), and higher

demand moves output further from Q^* , so the welfare loss grows.

Overall, the effect depends on how far demand increases and whether the increase

is long term. In the short term wages and conditions are unlikely to change, as

extra profit may be used to increase production or go to mine owners rather than

workers. On balance, without regulation, I judge that the external costs to many

people in the DRC are likely to outweigh the gains in jobs and income for some.

18

Capital goods are goods used to produce other goods and services, such as

machinery and factories, while consumer goods are bought by households for their

own satisfaction. Because factors of production (land, labour, capital and

enterprise) are scarce, an economy faces a trade-off. A production possibility

frontier (PPF) shows the maximum combinations of capital and consumer goods

that can be produced when all resources are fully and efficiently used, so any

point on it is productively efficient.

If Norway's resources are fully utilised, devoting more resources to capital goods has

an opportunity cost: the consumer goods given up. In Diagram 1 the economy

moves along its PPF from point A to point B: producing 10m extra capital goods

(20m to 30m) reduces production of consumer goods by 20m (50m to 30m).

The reduced supply of consumer goods shifts supply left from S to S_1 (Diagram

2), so the price of consumer goods rises from P to P_1 and the quantity consumed

falls from Q to Q_1 . Consumers have fewer consumer goods to enjoy and pay higher

prices, so consumer surplus and their living standards fall in the short run, and

they may also have less choice.

However, an economy may not be making full use of its resources, for example if

Consumer goods (m)

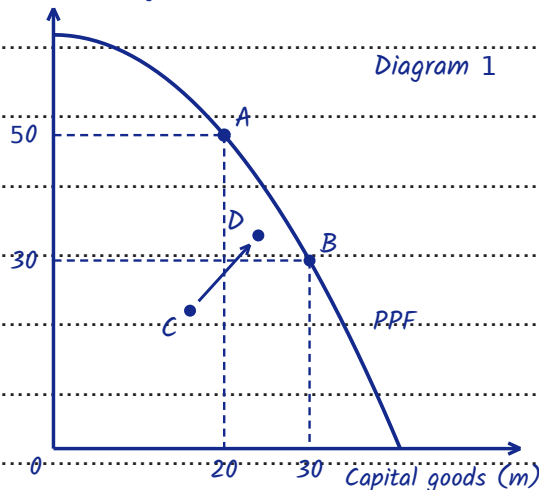


Diagram 1

Price

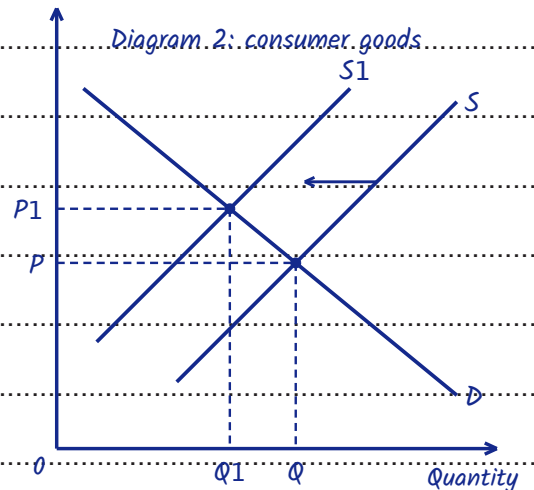


Diagram 2: consumer goods

there is unemployment or machinery is underutilised. It is then producing inside its

PPF, such as at point C in Diagram 1, and it can produce more capital goods

without switching resources. Moving from C to D, output of capital goods rises by

8m and output of consumer goods rises by 12m, so there is no opportunity cost

and consumers gain too. Improved efficiency in consumer goods production may also

mean resources can be switched with no loss of consumer goods output.

Most importantly, capital goods increase productive capacity in the long term. More

machinery and infrastructure raise productivity, pushing the PPF outwards from

PPF1 to PPF2 (Diagram 3) and increasing the potential output of both goods. The

economy can use this extra capacity to raise output of capital goods from 30m to

38m and consumer goods from 35m to 50m (E to F). Consumers sacrifice some

consumer goods now in exchange for more consumer goods, higher incomes and

higher living standards in the future. Also, some of the consumer goods given up

may create negative externalities, such as fuel-intensive goods, so reduced output

could improve social welfare.

The effect on consumers therefore depends on several factors: whether the

economy is initially making full use of its resources, as with spare capacity there

is no opportunity cost; the trade-off between capital and consumer goods, shown

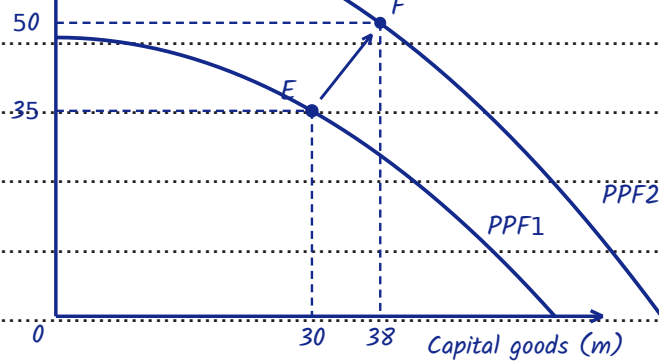
by the slope of the PPF, as a flatter trade-off means fewer consumer goods are

lost; and the type of capital goods, as investment in infrastructure or renewable

18a

Consumer goods (m)

Diagram 3



energy can benefit consumers directly.

Most importantly, it depends on the time period. In the short run consumers are likely to lose out through fewer consumer goods and higher prices, but in the long run, whatever the initial production point, consumers are likely to benefit from more capital goods being produced, because the PPF shifts outwards and more of both goods can be made. Norway, as a high income country, can afford the short-run sacrifice, so I judge that the long-run gains for its consumers outweigh the short-run costs.

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