

Surname <i>StemUp Model Solution</i>	Centre Number	Candidate Number
Other Names		2



GCE AS

B520U10-1



ECONOMICS – AS component 1
Introduction to Economic Principles

MONDAY, 13 MAY 2019 – MORNING

1 hour

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	8	
2.	4	
3.	6	
4.	14	
5.	12	
6.	4	
7.	8	
8.	4	
Total	60	

B520U101
01

ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** the questions in the spaces provided.

If you run out of space use the continuation page(s) at the back of the booklet, taking care to number the question(s) correctly.

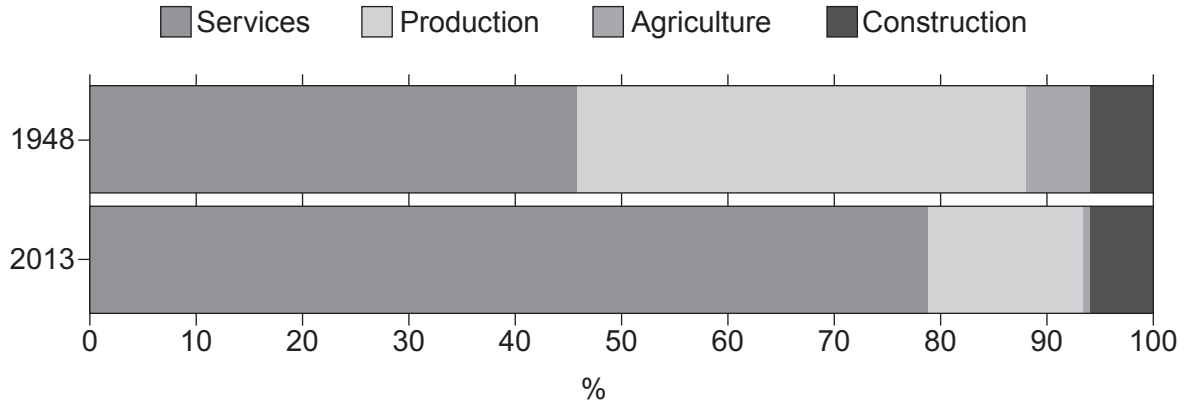
INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

Answer all the questions in the spaces provided.

1. Study the information below on the UK economy for the years 1948 and 2013 and answer the questions that follow.

Chart 1: Percentage of GDP coming from the services, production, agriculture and construction sectors, UK, 1948 and 2013



Source: <https://visual.ons.gov.uk>

Between 1948 and 2013, GDP in real terms (at 2006 prices) rose from around £280 billion to £1.3 trillion.

- (a) Using 1948 real GDP as the base, calculate the index number for real GDP in 2013. [2]

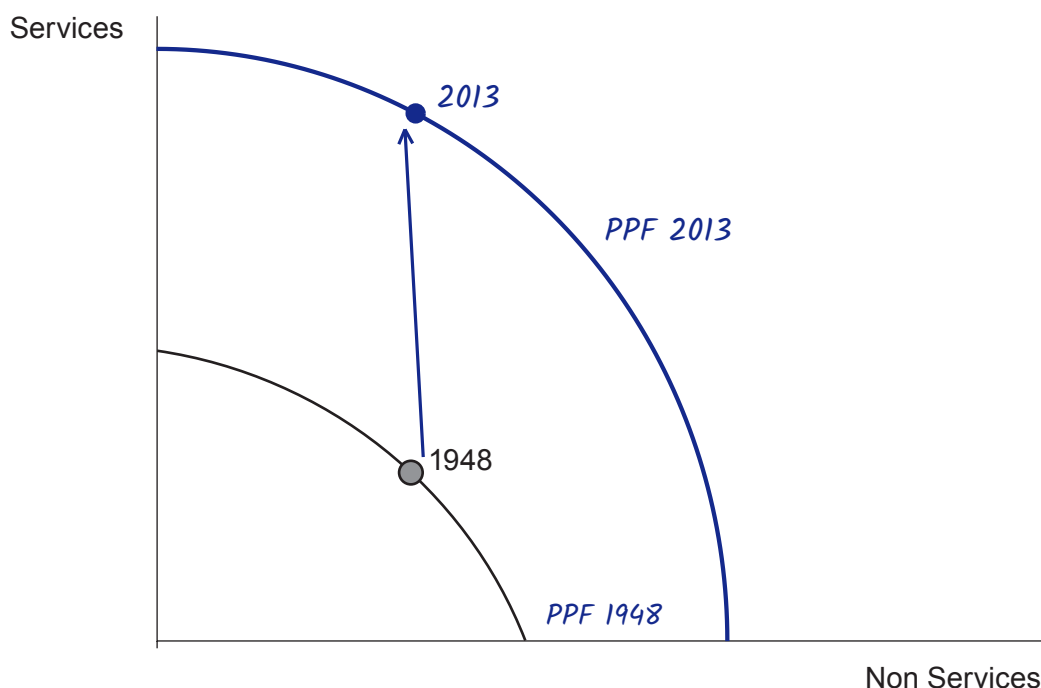
$$\text{Index} = (\text{real GDP 2013} \div \text{real GDP 1948}) \times 100$$

$$= (£1300\text{bn} \div £280\text{bn}) \times 100 = 4.643 \times 100$$

$$\text{Index number for 2013} = 464.3 \text{ (1948} = 100\text{)}$$

The production possibility frontier (PPF) diagram below represents the UK economy's position in 1948.

- (b) (i) Adapt the PPF diagram to show the UK economy's position in 2013. [2]



- (ii) Outline reasons for the changes that you have made to the diagram. [2]

PPF shifts out: real GDP rose from about £280bn to £1.3 trillion (index 464.3), so productive capacity is far higher.

2013 point is towards services: services rose from about 46% to 79% of GDP while production fell from about 42% to 14%.

- (c) With reference to the concept of income elasticity of demand, explain **one** possible reason for the change in the pattern of output shown in **Chart 1**. [2]

Services (leisure, travel, finance, communications) are income elastic, $YED > 1$, while goods like food are necessities, $YED < 1$. As real incomes rose 4.6 times, demand for services rose proportionately more than income, so services' share of GDP rose from 46% to 79%.

2. According to the Canadian National Occupational Classification, there were over 30 000 distinct job titles in use in Canada in 2016 and this number has steadily increased over time.

- (a) With reference to economic theory, explain **one** possible reason why the labour market is becoming increasingly specialised. [2]

Specialisation is when workers concentrate on a narrow range of tasks using specific skills. Global competition forces firms to raise productivity to cut unit costs and protect profits, and dividing production into narrow specialist jobs does this, as workers become faster and more skilled through repetition and need less training.

- (b) Outline why an economy with a highly specialised workforce will require an efficient means of exchange. [2]

A means of exchange, such as money, lets the output of one worker be traded for the output of others. Specialised workers produce a narrow range of output so cannot meet their own needs and must trade. Barter needs a double coincidence of wants, which is slow and costly, so money is needed for specialisation to work.

3. Read the information on the Royal National Lifeboat Institute (RNLI) and answer the question that follows.



The RNLI is the charity that saves lives at sea

We provide, on call, a 24-hour lifeboat search and rescue service around the UK and Ireland, and a seasonal lifeguard service.

With our lifeboats, lifeguards, safety advice and flood rescue, we are committed to saving lives.

The RNLI receives no money from the government and relies on volunteers for its operations. In 2016 it rescued over 30 000 people. It does not charge for its services. It is funded entirely by donations.

Source: RNLI website

Discuss the extent to which the RNLI can be described as a private good.

[6]

A private good is excludable (non-payers can be prevented from consuming it, as owners have property rights) and rival (one person's consumption reduces the amount available to others). Public goods are non-excludable and non-rival.

In theory the RNLI is rival: a crew rescuing one person cannot rescue another at the same time, and 30 000+ rescues in 2016 suggests boats and crews are sometimes in demand at once. It is also excludable in principle, as it could rescue only people who had paid or taken out insurance.

However, in reality exclusion is almost impossible: the crew cannot know if a drowning person has paid, or make them pay afterwards, and an injured person cannot reject being saved. As the RNLI charges nothing and relies on donations, not the market, there is a free-rider problem. Lifeboats are often idle, so rescues are largely non-rival, and safety advice benefits everyone at once.

Overall, the RNLI has some private good features, but in practice it is non-excludable and mostly non-rival, so it is better described as a public (or quasi-public) good.

4. According to a study by the University of York, the price elasticity of demand for home care services, such as help with washing and cooking, for the disabled elderly throughout France was -0.4 . The hourly price for such services was around €22.50. The median use of such services was 15.5 hours per month.

- (a) (i) Outline what is meant by a price elasticity of demand figure of -0.4 . [2]

PED measures the responsiveness of quantity demanded to a change in price

(% change in $Q_d \div$ % change in P). -0.4 means demand is price inelastic: a

10% price rise causes only a 4% fall in quantity demanded, a less than

proportional change, in the opposite direction.

- (ii) Calculate the impact on the expenditure on home care services of the median disabled elderly household in France as a result of an increase in hourly prices to €27 per hour. [4]

$$\% \text{ change in price} = (27 - 22.50) \div 22.50 \times 100 = +20\%$$

$$\% \text{ change in } Q_d = PED \times \% \text{ change in } P = -0.4 \times 20 = -8\%$$

$$\text{New hours} = 15.5 \times 0.92 = 14.26 \text{ hours per month}$$

$$\text{Old spending} = 15.5 \times \text{€}22.50 = \text{€}348.75 \text{ per month}$$

$$\text{New spending} = 14.26 \times \text{€}27 = \text{€}385.02 \approx \text{€}385 \text{ per month}$$

Impact: expenditure rises by €36.27 per month (about +10.4%), as demand is price inelastic.

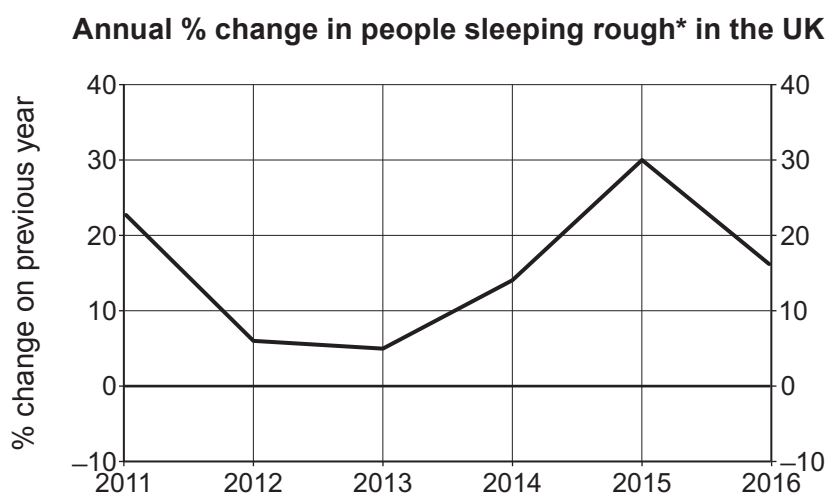
- (b) Discuss how useful this elasticity data might be to a private sector firm providing home care services in France. [8]

The data is useful because $PED = -0.4$ shows demand for home care is price inelastic, as care is a necessity for the disabled elderly with few substitutes. So if a firm raises its price, quantity demanded falls proportionately less and total revenue rises: in (a)(ii) a 20% price rise cut hours by only 8% but raised spending per household from €348.75 to €385. As fewer hours are supplied, total costs also fall, so profit rises. It also tells the firm that price cuts would reduce revenue, so it should compete on quality and focus on controlling costs instead.

However, -0.4 is for the whole market. A single firm faces rival providers offering close substitutes, so demand for its own service is likely to be far more price elastic; if it raised price alone, customers would switch and its revenue could fall. The figure is also an average for all of France, so it will vary by region and by segment (poorer households are more price sensitive). The study may be historic, so the market may have changed, and its accuracy depends on how the data was collected. Prices may be regulated or partly set by local government, and charging vulnerable elderly people more raises ethical and reputational issues.

Overall, the data is a useful guide to how the market responds to price, but of limited use for one firm's pricing decisions unless combined with its own PED estimates and other data such as YED and XED.

5. Labour Party conference: Jeremy Corbyn promises rent control



*Rough sleepers are those who are both homeless and unable to find temporary accommodation and therefore end up sleeping outdoors.

Labour Party leader, Jeremy Corbyn, promised to impose rent controls (maximum rents) on the private sector today to deal with the growing problem of homelessness in the UK and also inequality between those who own their homes and those who don't. The average rent of a one-bedroom apartment is now over £750 per month in the UK. This represents 50% of the take-home pay for the average worker under the age of 30.

Critics of rent controls argue that imposing restrictions on owners' ability to increase rents inevitably cuts the supply of much-needed rental properties; the homeless charity Shelter also argued that rent controls might make the situation worse by forcing landlords to sell their properties, which would help middle-class home buyers, but could push low-income renters onto the streets.

Source: <https://www.bigissue.com>

- (a) Describe the trends in rough sleeping in the UK between 2011 and 2016 shown in the chart. [3]

Rough sleeping rose every year from 2011 to 2016, as the % change is always positive (about +23% in 2011). The rate of increase slowed to about +6% in 2012 and +5% in 2013, then accelerated to +14% in 2014 and peaked at about +30% in 2015, before slowing to about +16% in 2016. The chart shows % changes, not numbers, but compounding these suggests rough sleeping more than doubled.

- (b) Using the data, discuss whether the rent controls proposed by Jeremy Corbyn are likely to solve the problems of homelessness in the UK. [9]

A rent control is a maximum price set below the equilibrium rent. Supporters argue it improves affordability: average rent for a one-bedroom flat is over £750 a month, 50% of under-30s' take-home pay, so lower rents let some people at risk of homelessness keep or find a home, and tenants who rent gain consumer surplus. With rough sleeping rising every year (by about 30% in 2015), this could help.

However, as my diagram on the continuation page shows, a maximum rent R_{max} below equilibrium R_e cuts quantity supplied from Q_e to Q_s while quantity demanded rises to Q_d , creating excess demand of $Q_d - Q_s$. Lower producer surplus reduces landlords' incentive to supply and invest, and, as Shelter argues, landlords may sell to middle-class buyers, so fewer homes are available to rent and low-income renters could be pushed onto the streets, worsening homelessness. The shortage also leads to waiting lists, landlord discrimination against poorer tenants, illegal side payments and poorer maintenance.

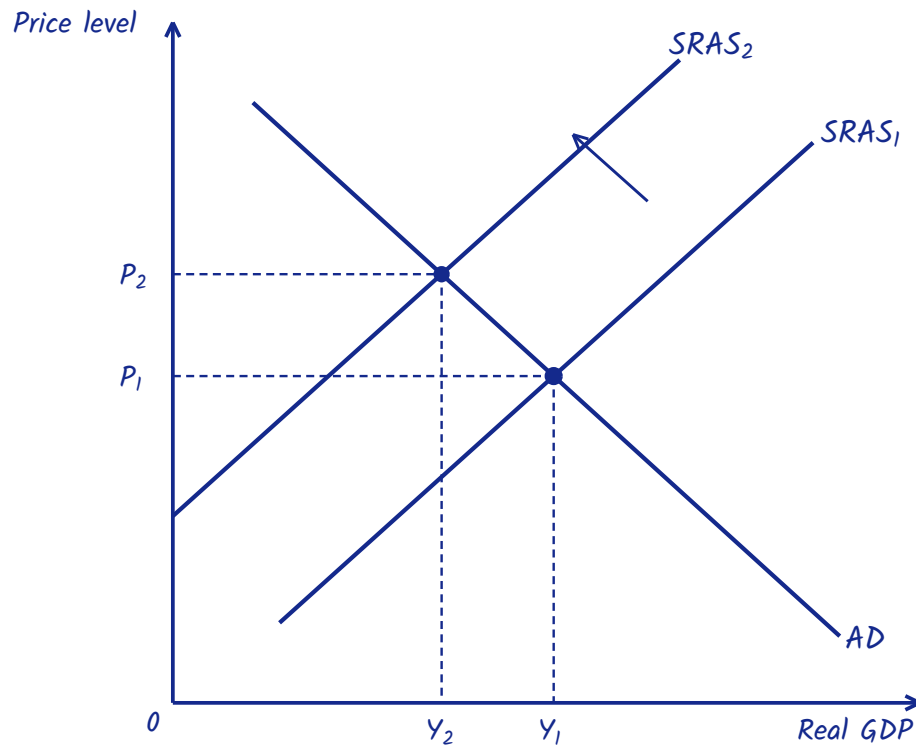
The effect depends on the price elasticity of supply: in the short run supply is inelastic so the shortage is small, but in the long run landlords leave the market. It also depends on how far below equilibrium the cap is set. Rough sleeping is also a complex problem linked to mental health, addiction and family breakdown, and many rough sleepers could not afford even a reduced rent.

Overall, rent controls are unlikely to solve homelessness and could make it worse in the long run; building more social housing and support services would tackle the cause, though controls may help existing tenants in the short run.

6. UK inflation at highest since April 2012

The UK's key inflation rate hit its highest for more than five years in September 2017, driven up by increases in transport and food prices.

Use an AD/AS diagram to outline and illustrate why UK inflation increased over the year to its September 2017 level. [4]



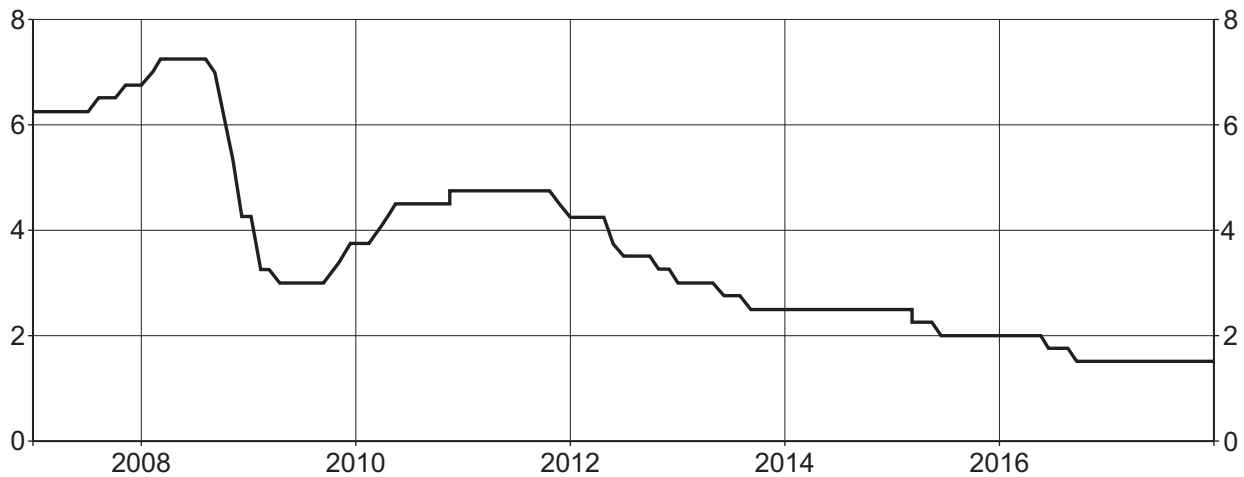
Rising transport (fuel) and food prices raise firms' costs of production, so SRAS shifts left from $SRAS_1$ to $SRAS_2$. This cost-push inflation raises the price level from P_1 to P_2 and real GDP falls from Y_1 to Y_2 , so inflation rose to its highest since 2012.

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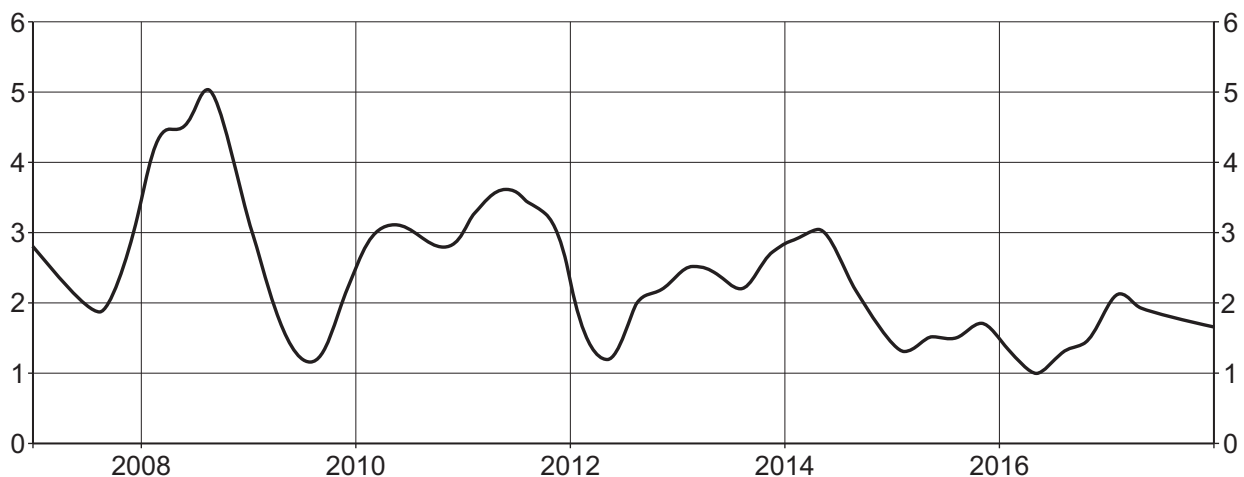
7. Using the data below and appropriate economic analysis, consider the extent to which interest rates appear to have been an effective tool for controlling inflation in Australia over the period shown.

[8]

Australia Interest Rate (%)



Australia Annual Inflation Rate (%)



Interest rates are the cost of borrowing and reward for saving; inflation is the rate of increase in the general price level. In theory, higher rates raise the cost of borrowing and reward saving, so consumption and investment fall; higher mortgage repayments cut disposable income and asset prices fall (wealth effect). Higher rates also attract hot money, appreciating the Australian dollar, so imports are cheaper and net exports fall. AD shifts left, so firms face weaker demand and raise prices more slowly. Cuts work the opposite way.

The data gives some support, allowing for time lags. Rates rose from 3% in 2009 to

4.75% in late 2010, and inflation later fell from about 3.6% in 2011 to about 1.2% in 2012. Rates were then cut from 4.75% to 2.5% by 2013, and inflation rose back to about 3% in 2014.

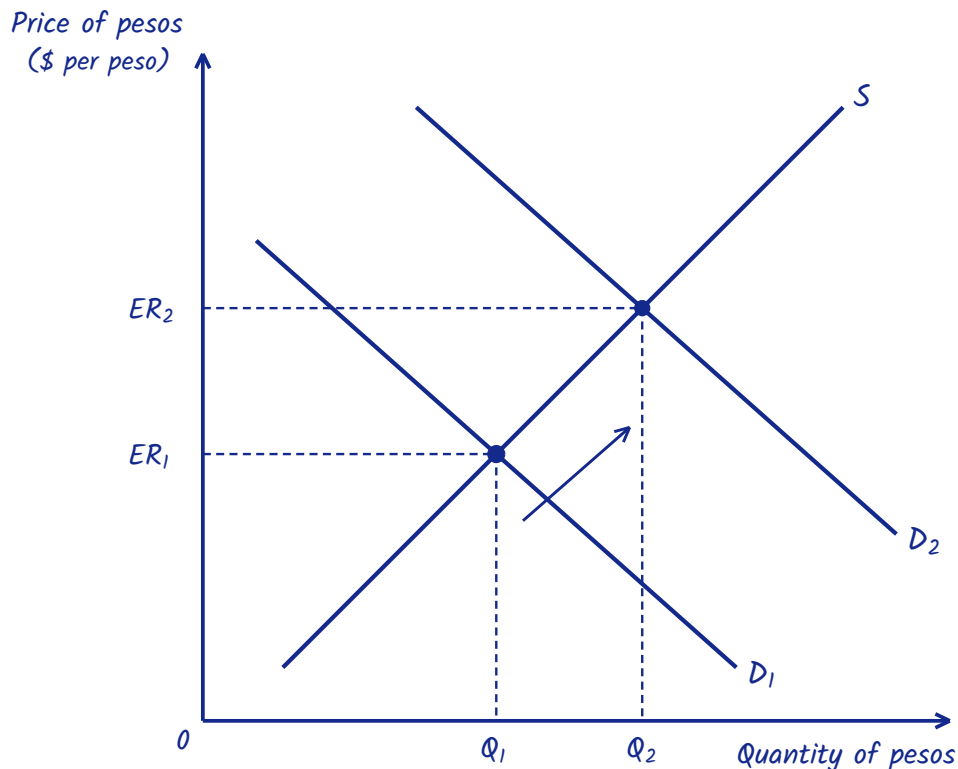
However, the link is weak. Inflation rose to 5% in 2008 when rates were at their peak of about 7.25%, and from 2014 to 2016 inflation fell to about 1% even though rates were cut to a record low of 1.5%. Other factors matter: the global financial crisis and weak global demand, falling commodity prices, wage settlements, the exchange rate and QE abroad. Long, variable lags also make cause and effect unclear. Overall, interest rates appear only partly effective: they explain some turning points, but inflation often moved independently of rates, so they could not control inflation on their own.

8. Mexican peso appreciates

Mexico's currency, the peso, rose in July 2017 as confidence grew that U.S. President Donald Trump would not pull out of NAFTA, the free trade agreement between the USA, Mexico and Canada.

With the use of a diagram, outline why the peso appreciated in July 2017.

[4]



Growing confidence that NAFTA would continue meant Mexican exports to the US would keep growing and investors expected higher returns in Mexico, so demand for pesos rose (more exports and capital inflows). Demand shifts right from D_1 to D_2 , so the exchange rate rises from ER_1 to ER_2 ; the peso appreciates.

END OF PAPER

For continuation only.

5 (b) Diagram

