

# Economics

## Theme 4: A global perspective

### Course companion 9

### The role of the state in the macro economy



Name: \_\_\_\_\_ Tutor group: \_\_\_\_\_

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## 4.5 Role of the state in the macro economy

In Theme 2 we studied the impact of tax and government spending on the circular flow of income, and studied fiscal policy. This course companion will build on this knowledge, to consider the macroeconomic effects of changes in taxation more fully; the reasons for changes in the size and composition of public expenditure and the significance of its level for the economy; and the significance of the state of public finances. The booklet also includes some revision of monetary policy and a focus on macro-economic policy in the global context.

### Public expenditure (government spending)

#### Specification: 4.5.1 Public expenditure

- a) Distinction between capital expenditure, current expenditure and transfer payments
- b) Reasons for the changing size and composition of public expenditure in a global context
- c) The significance of differing levels of public expenditure as a proportion of GDP on:
  - productivity and growth
  - living standards
  - crowding out
  - level of taxation
  - equality

#### Types of public expenditure:

**Current expenditure:** This is day-to-day expenditure on goods and services, e.g. salaries of teachers, drugs used by the NHS.

**Capital expenditure:** This relates to expenditure on long-term investment projects such as new hospitals and roads.

**Transfer payments:** These are payments made by the state (from tax revenues) to individuals in the form of benefits for which there is no production in return; examples include child benefit, state pensions and the jobseekers' allowance.

#### Reasons for public expenditure

**Microeconomic management** of the economy, to **correct market failure** (Theme 1 revision):

- Provide public goods e.g. defence
- Provide merit goods where external benefits or information failure
- Reduce external costs e.g. pollution, waste
- Redistribute income
- Prevent absolute poverty

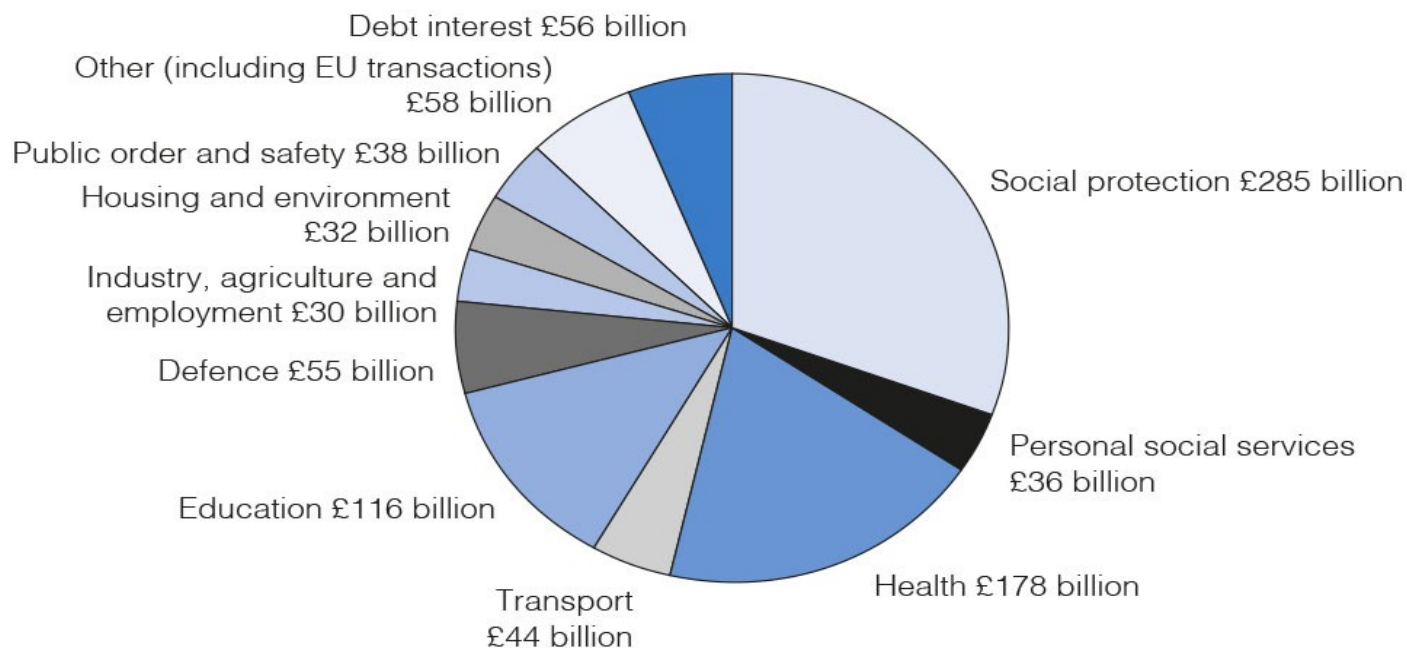
Note: Due to scarce resources an increase in spending in one area will involve an **opportunity cost**.

Public expenditure also contributes to the **macroeconomic management** of the economy, as part of government **fiscal policy**.



## Country example: UK – Changing size & current composition of UK government spending

**Figure 1: Public sector spending for 2020-21 (Figures from 2020 Budget)**

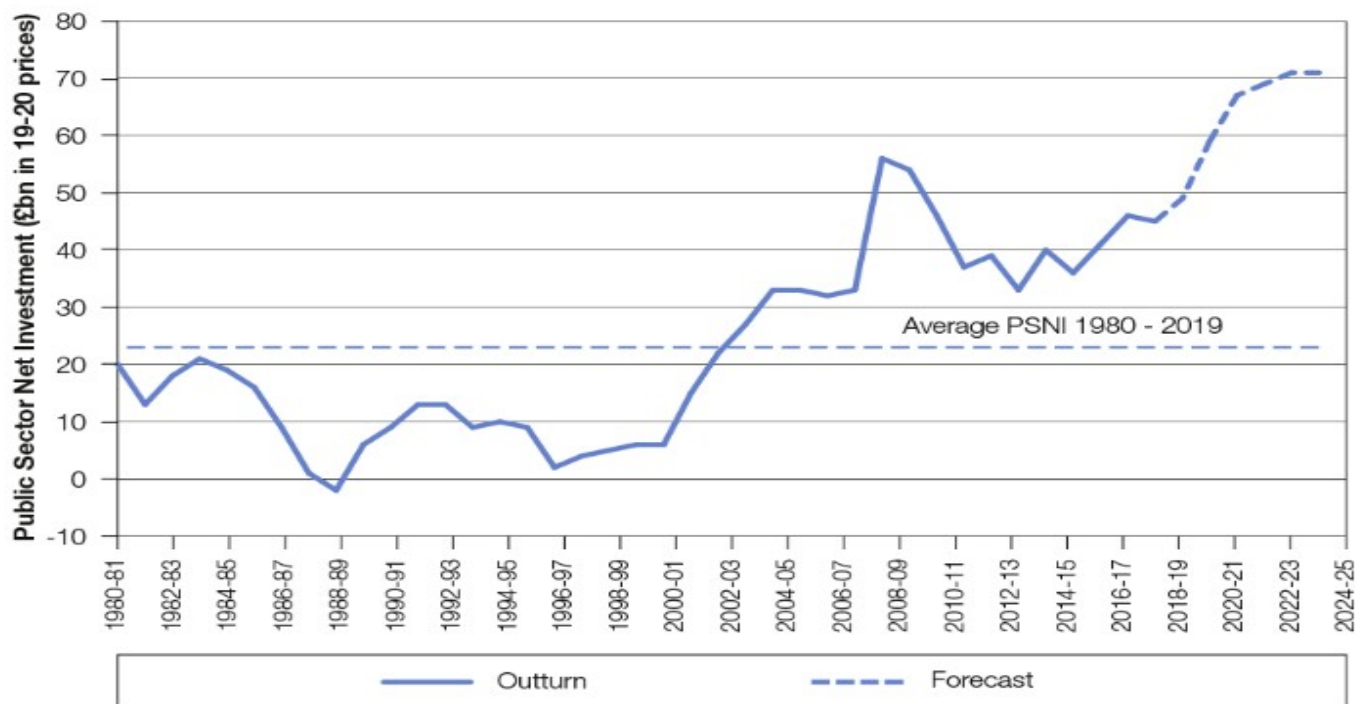


Figures may not sum due to rounding.

Illustrative allocations to functions are based on HMT analysis including capital consumption figures from the Office for National Statistics.

Source: Office for Budget Responsibility and HM Treasury calculations.

**Figure 2: Public sector net investment from 1980-81 to 2024-25 (Figures from 2020 Budget)**



Source: Office for National Statistics and Office for Budget Responsibility.

**Figure 3: International comparison of government expenditure as a percentage of GDP**

	1960-67	1968-73	1974-79	1980-89	1990-99	2000-07	2008-14
France	37.4	38.9	45.0	49.9	52.8	52.2	56.2
Sweden	34.8	44.3	51.4	59.8	63.1	54.0	53.5
Italy	31.9	36.0	38.2	47.5	51.7	46.9	50.0
UK	34.7	39.5	44.2	43.0	39.8	39.8	45.8
Germany	35.7	39.8	47.5	47.8	43.5	45.8	45.1
Canada	29.3	34.7	39.8	45.4	47.5	39.6	41.3
Japan	18.7	20.5	30.2	32.9	35.0	37.2	41.2
US	28.3	31.0	34.6	36.7	36.9	36.1	40.6

Source: adapted from OECD, *Historical Statistics*, [www.stats.oecd.org](http://www.stats.oecd.org).

### **Questions**

1. Using Figure 1 identify the main areas of government spending
2. Using Figure 2 describe the changes to public sector investment since the 1980s and the forecast over the next few years
3. Using Figure 3 comment on the size of government spending as a % of GDP:
  - Over time:
  - In comparison to other developed economies:

## **Impact of increased levels of public expenditure as a proportion of GDP:**

### **1. Explain the benefits of increased government spending:**

#### **Productivity and growth**

Why could government spending increase productivity and growth?

#### **Living standards**

Why could government spending increase living standards?

#### **Equality**

Why could government spending increase equality?

### **2. Explain the problems of increased government spending:**

#### **Taxes**

Explain the problems of having high taxes to pay for public spending

#### **National Debt**

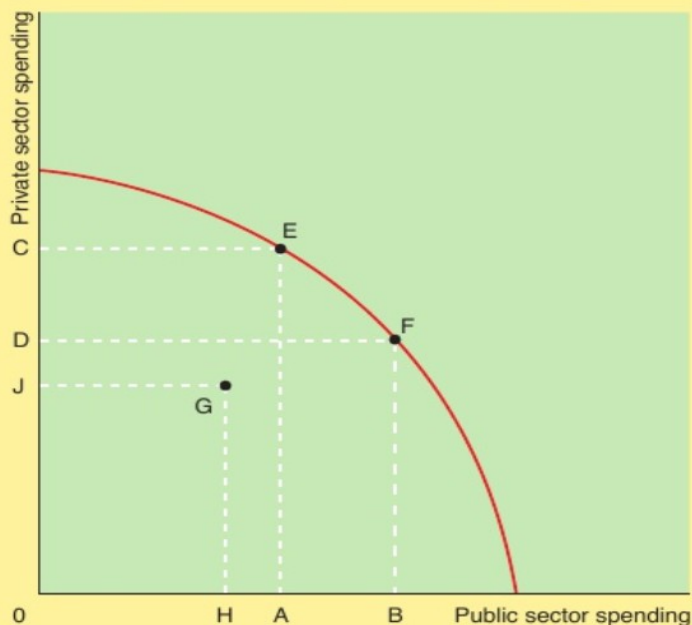
Explain the problems of higher government debt to pay for public spending



## Problems of increased government spending:

### Crowding out

If the economy is at full employment, producing on its production possibility frontier, then an increase in public sector spending of AB will crowd out CD of private sector spending. However, if there is unemployment and the economy is at G, a move to the PPF can give both extra public sector and private sector spending.



### **Disadvantages of increased levels of public expenditure as a proportion of GDP:**

Explain disadvantages	Evaluation: Advantages, depends on...
<p><b>Crowding out:</b></p> <p><b>Resource crowding out:</b> occurs when the economy is operating at full employment and an increase in public expenditure results in insufficient resources being available for the private sector (see diagram above – increase in public spending of AB).</p> <p><b>Financial crowding out:</b> occurs when increased public expenditure or tax cuts are financed by increased public sector borrowing, so increasing the demand for loanable funds and driving up interest rates. This reduces private sector investment (see problems with budget deficits for further details)</p>	<ul style="list-style-type: none"> <li>• Resource crowding out may not occur if <b>high unemployment</b> (e.g. economy at G on diagram above)</li> <li>• <b>Crowding in:</b> if high unemployment then increased government spending could lead to higher private sector spending through the multiplier effect, e.g. diagram above: government spending moves economy from G to F, extra HB of government spending crowds in JD of private sector spending.</li> <li>• <b>Quantitative easing</b> in the UK has kept interest rates low despite budget deficit. This is because the Bank of England buys bonds which raises the price and reduces the interest rate on bonds (see section on QE for further details)</li> </ul>

### **Reasons for changes in the size and composition of public expenditure:**

Explain impact on <b>size</b> of public expenditure	Impact on <b>composition</b> of public expenditure
<b>Increasing average income</b> As incomes increase over time, the government may gain more tax revenue. As income rise, the revenue from income tax rises. As consumption rises, the revenue from VAT rises Therefore governments have more funds to spend on public services	There may be more spending on health and education as demand increases There may be more spending on state pensions as the government is committed to raising state pensions in-line with average incomes.
<b>Changing age distribution of population</b> The UK has an ageing population. This will mean there is more demand for government spending over time.	There may be more spending on state pensions There will be greater demand for health care and social care
<b>Changing expectations</b> As new medicines and health treatments are developed individuals expect to have access to the latest treatment More young people expect to go to university More individuals expect to drive cars This will mean there is more demand for government spending over time.	There is greater demand for health care, higher education and new roads as expectations change over time.
<b>The Financial crisis</b> There was a big increase in public spending following the financial crisis	The government spent money lending to banks and buying shares in the banks to prevent them from collapsing The government spent money on infrastructure projects in an attempt to increase AD and GDP Rising unemployment caused increased spending on unemployment benefits



# Taxation

## Specification: 4.5.2 Taxation

- a) Distinction between progressive, proportional and regressive taxes
- b) The economic effects of changes in direct and indirect tax rates on other variables:
  - incentives to work
  - tax revenues: the Laffer curve
  - income distribution
  - real output and employment
  - the price level
  - the trade balance
  - FDI flows

## Purposes of taxation

- To pay for government expenditure
- **Microeconomic** management of the economy, e.g. to correct market failure such as externalities (Theme 1)
- **Macroeconomic** management, as part of fiscal policy
- To redistribute income

**Direct taxes:** Direct taxation is levied on income, wealth and profit, e.g. Income tax, National insurance contributions, Capital gains tax, Corporation tax

**Indirect taxes:** Indirect taxes are levied on spending by consumers on goods and services, e.g. VAT, or specific taxes on fuel and alcohol, car tax. (See Theme 1).

**Progressive taxes:** as income rises, a larger percentage of income is paid in tax (e.g. UK income tax).

**Proportional taxes:** – the percentage of income paid in tax is constant, no matter what the level of income.

**Regressive taxes** as income rises, a smaller percentage of income is paid in tax (for example, excise duties on tobacco, alcohol in the UK).

The main taxes in the UK are:

- **Income tax:** a tax on the income of individuals. See table below.
- **National insurance contributions:** Tax on labour, paid by both employees and employers.
- **Corporation tax:** tax on company profits.
- **Capital gains tax:** Tax on capital gains, i.e. the difference between the buying price and selling price of an asset, e.g. shares, buy-to-let property (person's main home exempt)
- **Inheritance tax:** tax on value of assets left on death.
- **Excise duties:** taxes levied on a narrow range of goods e.g. vehicle fuel, alcohol, tobacco & betting.
- **Value added tax (VAT):** tax on expenditure, currently 20% (some essential goods exempt e.g. food, children's clothes)
- **Council tax:** Tax imposed on domestic property by councils, based on estimated sale value in 1992.
- **Business rates:** a local authority tax on business property, based on estimate of reasonable yearly rent.

## UK income tax rates and bands 2020-21

### PAYE tax rates and thresholds 2020 to 2021

Employee personal allowance	£240 per week £1,042 per month £12,500 per year
English and Northern Irish basic tax rate	20% on annual earnings above the PAYE tax threshold and up to £37,500
English and Northern Irish higher tax rate	40% on annual earnings from £37,501 to £150,000
English and Northern Irish additional tax rate	45% on annual earnings above £150,000

**Question: Why is income tax progressive in the UK?**

**Table 1 Percentage of income paid in tax, 2012-13**

Quintile groups of all households ranked by equivalised disposable income						
	Bottom	2nd	3rd	4th	Top	All households
Original income	5 536	11 952	23 069	38 697	81 284	32 108
Gross income (original income plus benefits)	12 690	20 769	29 692	43 388	83 950	38 098
Direct taxes and employees, NIC	1 256	2 257	4 620	8 635	20 322	7 418
Indirect taxes	844	1 911	5 029	6 474	9 140	5 623
Direct taxes as a percentage of gross income	9.9	10.9	15.6	19.9	24.2	19.5
Indirect taxes as a percentage of gross income	27.5	19.2	16.9	14.9	10.9	14.8
Taxes as percentage of original income	85.7	52.2	41.8	39.0	36.2	40.6
Taxes as percentage of gross income	37.4	30.1	32.5	34.8	35.1	34.2

Source: adapted from *The Effects of Taxes and Benefits on Household Income, 2012-13*, [www.ons.gov.uk](http://www.ons.gov.uk).

(a) Analyse the extent to which each of the following are progressive in the UK:

(i) Direct taxes

(ii) Indirect taxes

(iii) Total taxes as a percentage of gross income

## Direct taxes

### An increase in direct taxation and the circular flow of income

Between 2010 and 2016 the UK government has increased the personal allowance from £6,475 to £11,000, effectively cutting the amount of income tax paid.

What will be the impact of this cut in income tax on the level of national income? Use the circular flow of income model to explain.

The personal allowance will rise to £11,000 from 6 April – a tax cut for 30 million people



HM Treasury

### Income tax (direct tax) and AS/AD

- (a) Draw an AS/AD diagram to show the impact of this cut in income tax.
- (b) Explain your diagram and state the impact on real output and the price level.

Price level

Real output

## Evaluation

### Corporation tax (direct tax) and AS/AD

Between 2010 and 2016, the UK government reduced the rate of corporation tax from 28% to 20%.



- Draw an AS/AD diagram to show the impact of this cut in corporation tax.
- Explain your diagram and state the impact on real output and the price level.



## Evaluation

### The Laffer curve

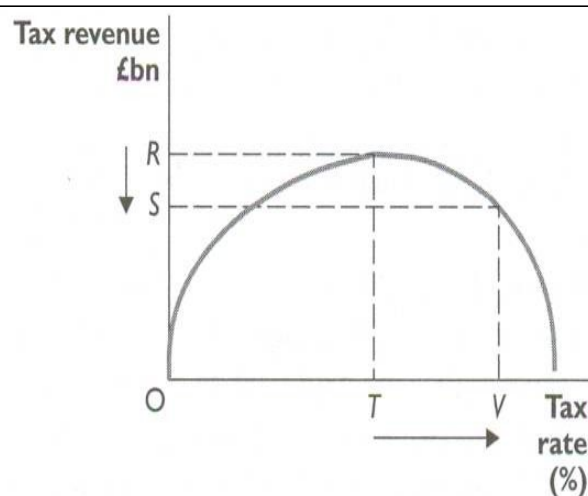
**Laffer curve:** a curve which shows that at low levels of taxation, tax revenues will increase if tax rates are increased; however, if tax rates are high, then a further rise in rates will reduce total tax revenues because of the disincentive effects of the increase in tax.

**Effect of an increase in direct taxation** e.g. income tax increased to 50% for high earners

- When the tax rate is increased to point T, tax revenues increase.
- However, a further increase in the tax rate from T to V causes a fall in tax revenue from R to S.

This may be explained by the following factors:

- increased disincentives to work;
- an increase in tax avoidance and evasion;
- and a rise in the number of tax exiles.

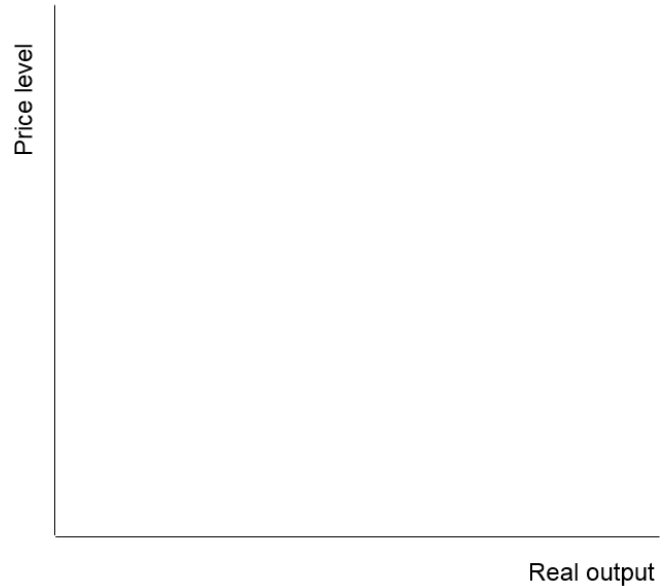


**Figure 5 The Laffer curve**

## Indirect taxes

In January 2011 the UK government increased VAT from 17.5% to 20%.

- Draw an AS/AD diagram to show the impact of this increase in VAT.
- Explain your diagram and state the impact on real output and the price level.



## Evaluation



## Indirect taxes

### VAT and AS/AD

#### VAT rate rises from 17.5% to 20% BBC, 4 January 2011

The standard rate of VAT has risen from 17.5% to 20% as the government looks to boost tax revenues to cut its deficit.

Business groups have warned that retailers will be hit by the increase, while opponents of the rise have said the poorest will be hit hardest. The government says the rise is necessary to help bring down the UK's high budget deficit. Chancellor George Osborne said the move was more "progressive" than a hike in income tax or National Insurance. Food, children's clothing, newspapers and magazines are not subject to VAT. When unveiling the VAT rise over the summer, Chancellor George Osborne said it would raise more than £13bn a year by the end of the parliament. However, the

Labour opposition has accused the government of penalising low-income families. Although they will end up paying less VAT in total, lower income households spend a bigger share of their incomes on taxed goods, meaning they are proportionately harder hit.

Effect of VAT rise by income groups



Source: Institute for Fiscal Studies

Meanwhile, retailers are left worried that they may face a big drop in sales starting this week. Research by the Centre for Retail Research and online shopping group Kelkoo has suggested that retail sales will fall by about £2.2bn in the first three months of the year as a result of the rise in VAT. More than seven out of 10 retailers polled by the BRC thought that their customers would bring forward purchases to beat the VAT increase.

The effect of the VAT rise:

- A £9.99 cuddly toy rises to £10.20 at the new VAT rate
- A £500 flat-screen TV rises to £510.64
- A £15,000 new car rises to £15,319.15

The rise is particularly unwelcome for those sensitive to the cost of petrol, coming on top of rising oil prices and an increase in fuel duty. However, others suggest that the impact on sales may be quite short-lived. "The increase will inevitably affect the first quarter of this year, possibly the second quarter," said Adrian Houstoun, from the chartered accountancy firm Kingston Smith. But he thinks that a 2% price rise is unlikely to have a lasting impact, and eventually people will revert to their old spending habits.

What is the likely effect of raising VAT on inequality?



# Public sector finances and fiscal policy

## Specification: 4.5.3 Public sector Finances

- a) Distinction between a fiscal deficit and the national debt
- b) Factors influencing the size of fiscal deficits
- c) Factors influencing the size of national debts
- d) Distinction between automatic stabilisers and discretionary fiscal policy
- e) Distinction between structural and cyclical deficits
- f) The significance of the size of fiscal deficits and national debts



## Specification: 4.5.4: Macroeconomic policies in a global context

- a) Use of fiscal policy in different countries, with specific reference to the impact of:
  - Measures to reduce fiscal deficits and national debts
  - Measures to reduce poverty and inequality
  - Measures to increase competitiveness
- b) Use and impact of macroeconomic policies to respond to external shocks to the global economy.

### Distinction between fiscal deficits and the national debt

Fiscal policy is the use of taxation, government spending and government borrowing

A fiscal deficit or budget deficit is where a government spends more than they receive in revenue in one year. The government must therefore borrow to finance their spending

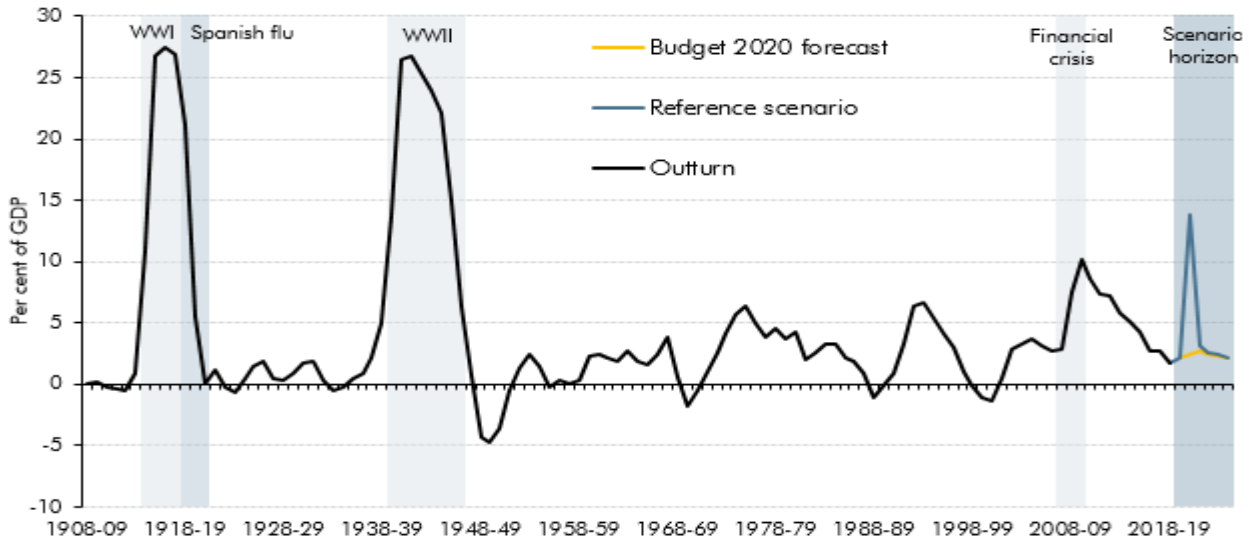
The national debt is the total accumulated government debt over time. If the government has a budget deficit the national debt will rise.

A fiscal surplus or budget surplus is where a government receives more in tax revenue than they spend in one year. The government could choose to reduce the national debt or they could cut taxes or raise government spending

\*NOTE: Most of the UK national debt is owed to financial institutions based in the UK who possess UK government bonds. Don't confuse the national debt for foreign debt!

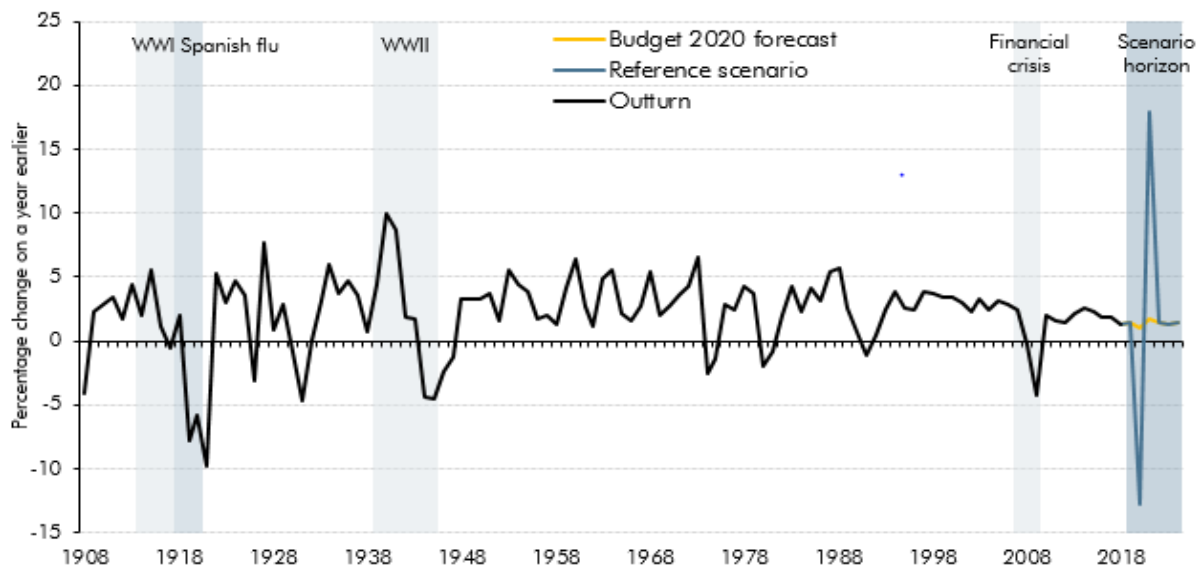
## Factors affecting budget deficits and the national debt

### The fiscal deficit over time



NOTE: On both charts the blue line shows the most recent forecast. The yellow line shows s a previous forecast from the budget in March 2020.

### GDP growth over time



Source: Bank of England, ONS, OBR

What do you notice about the relationship between GDP growth and the budget deficit?

How could you explain this relationship?

## **Coronavirus: UK economy 'could shrink by record 35%' by June**

BBC website: 14<sup>th</sup> April 2020

The UK's independent tax and spending watchdog has warned the coronavirus pandemic could see the economy shrink by a record 35% by June. The Office for Budget Responsibility (OBR) said that this was based on an assumption that the current lockdown would last for three months.

Once restrictions are lifted, the OBR expects no lasting damage to growth as it expects half of any sharp drop in growth in the second quarter to be reversed in the three months to September as the economy starts to recover.

### **Three month lockdown could trigger 35% drop in GDP in Q2 2020**



Source: Office for Budget Responsibility

BBC

Separately, the International Monetary Fund warned the virus would push the UK into its deepest slump for a century. The IMF expects the UK economy will shrink by 6.5% in 2020, while the global economy will contract by 3%. It said the pandemic had plunged the world into a "crisis like no other".

The OBR's estimates - which focus on the virus's impact on the UK economy and public finances - is more severe. It said a three-month lockdown followed by three months of partial restrictions would trigger an economic decline of 35.1% in the quarter to June alone, following an expansion of 0.2% in the first three months of this year.

The OBR expects a more lasting impact on unemployment, which is estimated to rise by 2.1 million to 3.4 million by the end of June.

Under this scenario, unemployment would hit 10%, from its current 3.9% rate, before easing to around 7.3% at the end of the year. The lockdown would push up the UK's borrowing bill to an estimated £273bn this financial year, or 14% of gross domestic product (GDP). This would represent the largest deficit as a share of GDP since World War Two. While borrowing is expected to jump, the OBR said the government's unprecedented financial help for workers and businesses would help to limit any long-term damage.

The OBR expects a more lasting impact on unemployment, which is estimated to rise by 2.1 million to 3.4 million by the end of June. Under this scenario, unemployment would hit 10%, from its current 3.9% rate, before easing to around 7.3% at the end of the year. The jobless rate is

expected to remain elevated until 2023, when it is expected to drop back to 4%, in line with the OBR's March forecast.

The OBR expects UK debt to remain elevated for years to come, with extra borrowing expected to push Britain's debt share to above 100% of GDP this financial year under the three month lockdown scenario. While this will drop sharply as the UK economy recovers, public debt is expected to remain at 84.9% of GDP in four years time, much higher than the 75.3% forecast in the March Budget.

However, the OBR said extra spending by the Treasury to support the economy was crucial to limit the economic damage. "The government's policy response will have substantial direct budgetary costs, but the measures should help limit the long-term damage to the economy and public finances - the costs of inaction would certainly have been higher."

It added that while the lockdown was the main constraint on economic activity, relaxing these measures too soon would cause greater damage. "The reason why most of the short-term economic impact comes from these measures is that they are successful in limiting the spread of the disease. "If the measures were not stringent enough to control the disease, then the economic impact from illness would be that much greater.

**Question: Explain why the coronavirus pandemic is likely to increase the budget deficit and the national debt**

**Automatic stabilisers:** a process by which government expenditure and tax revenue varies with the business cycle, thereby helping to stabilise the economy without any conscious intervention from government.

The rate of economic growth can be stabilised by fiscal policy, even if the government does nothing to change policy. What would be the effects on government spending and taxation of a fall in real GDP?

As GDP falls, tax revenue will \_\_\_\_\_ because

This will happen even if the government does not adjust tax rates. Also, as GDP falls, government spending will \_\_\_\_\_ because

This will happen even if the government does not adjust spending plans. In a recession, this will have the effect of:

### Discretionary fiscal policy: Expansionary fiscal policy

**Demand management:** government use of fiscal or other policies to manipulate the level of aggregate demand in the economy.

**Active or discretionary fiscal policy:** the deliberate manipulation of government expenditure and taxes to influence the economy.

**Expansionary fiscal policy:** fiscal policy used to **increase aggregate demand** (cut in taxes or increase in government spending).

**Budget deficit:** a deficit which arises because **government spending is greater than its tax receipts**. The government therefore has to **borrow** money to finance the difference.

The diagram below shows the transmission mechanisms for an expansionary fiscal policy:

#### Question 1

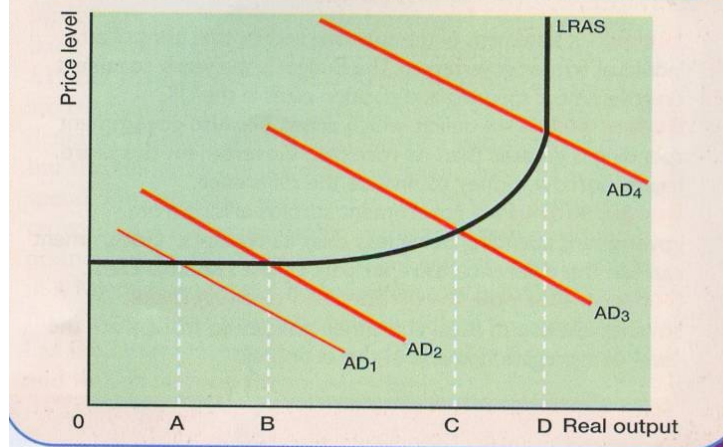
- Draw an AS/AD diagram to show the impact of an expansionary fiscal policy, such as increased spending on infrastructure.
- Explain your diagram, stating the impact on the price level and real output.

Price level

Real output

**Figure 6 The Keynesian view**

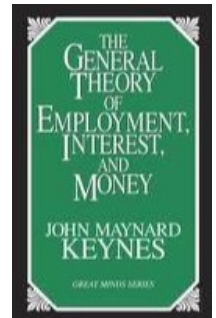
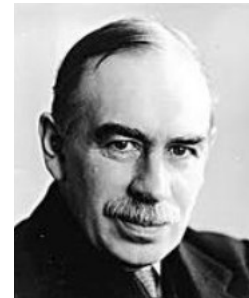
The effectiveness of fiscal policy depends upon how close the economy is to full employment. At output levels below OB, expansionary fiscal policy can increase output and reduce unemployment without increasing inflation. Between OB and OD, expansionary fiscal policy will increase both output and inflation. At full employment, OD, expansionary fiscal policy will result only in extra inflation.



### Historical country example of expansionary fiscal policy: Roosevelt 'New Deal'

- The recessions & high unemployment of the 1920's/1930's led to new thinking on the role of government, led by **John Maynard Keynes** who published the '**General Theory of Employment, Interest and Money**' in 1936.
- Keynes challenged the Classical assumption that a market economy tends to naturally restore itself to full employment after temporary shocks, e.g. through lower wages
- Keynes believed government intervention was needed to increase spending in the economy and create jobs.

[http://www.youtube.com/watch?v=W\\_pmsRP311c&feature=related](http://www.youtube.com/watch?v=W_pmsRP311c&feature=related)



1. How did Roosevelt apply Keynesian economics in his policy of intervention in the economy? Note examples of programmes introduced.

### Discretionary fiscal policy: Contractionary fiscal policy

**Contractionary fiscal policy** or tighter fiscal policy: used to **reduce aggregate demand** (increase taxes or reduce government spending). I.e. shift AD curve left.

**Budget surplus:** a government surplus arising from **government spending** being **less than its tax receipts**. The government can use the difference to repay part of the National Debt.

**Fiscal austerity:** tax rises or government spending cuts designed to reduce a government budget deficit.

### Country example: Greek government austerity measures in 2011

Source: <http://www.bbc.co.uk/news/business-13940431> 19 October 2011

The Greek parliament is preparing to vote on further austerity measures to try to meet its terms for another payment under the bail-out from the European Union and the International Monetary Fund. The five-year plan was changed to allow for more money to be raised through tax increases and less money to be saved through spending cuts. The plan involves cutting 14.32bn euros (\$20.50bn; £12.82bn) of public spending, while raising 14.09bn euros in taxes over five years.



## Question 2

- Draw an AS/AD diagram to show the impact of fiscal austerity in Greece (contractionary fiscal policy).
- Explain your diagram, stating the impact on the price level and real output.
- Which macro-economic objectives could be achieved by a contractionary fiscal policy?

Price level

Real output

## Distinction between structural and cyclical deficits

**Cyclical deficit:** that part of the fiscal deficit which is caused by government spending and taxes changing through the trade cycle.

**Structural deficit:** that part of a fiscal deficit that exists even when the cyclical deficit is zero at the top of a boom.

**Primary deficit or surplus:** the actual fiscal deficit or surplus not taking into account interest payments on the National Debt.

**Current budget deficit:** occurs when government revenues are less than current expenditure. It does not include government capital expenditure.

## Structural and cyclical deficits

A **cyclical fiscal deficit** occurs during a downturn in the economy because tax revenues will be falling and government expenditure (for example on social benefits) will be increasing. Such a deficit should disappear when the economy returns to its trend growth rate (cyclical deficit is 6% on diagram).

A **structural fiscal deficit** remains even when the economy is operating at its full potential. It is, therefore, regarded as a more serious problem than a cyclical deficit (structural deficit is 2% on diagram).

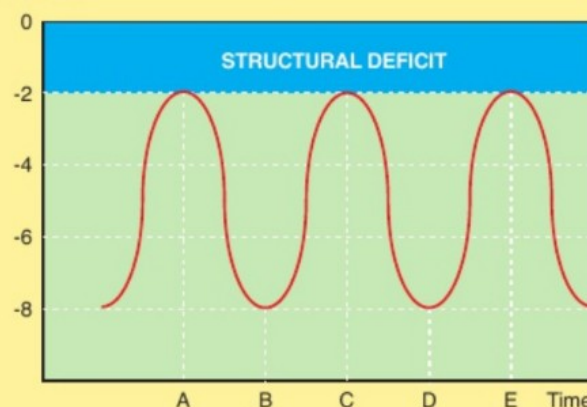
## Question 3

The shows OECD estimates of the structural deficits or surpluses for four countries.

### Cyclical and structural deficits

There is a structural deficit in this economy of two per cent of GDP because the lowest level of the cyclical deficit is two per cent of GDP.

Fiscal deficit as  
% of GDP

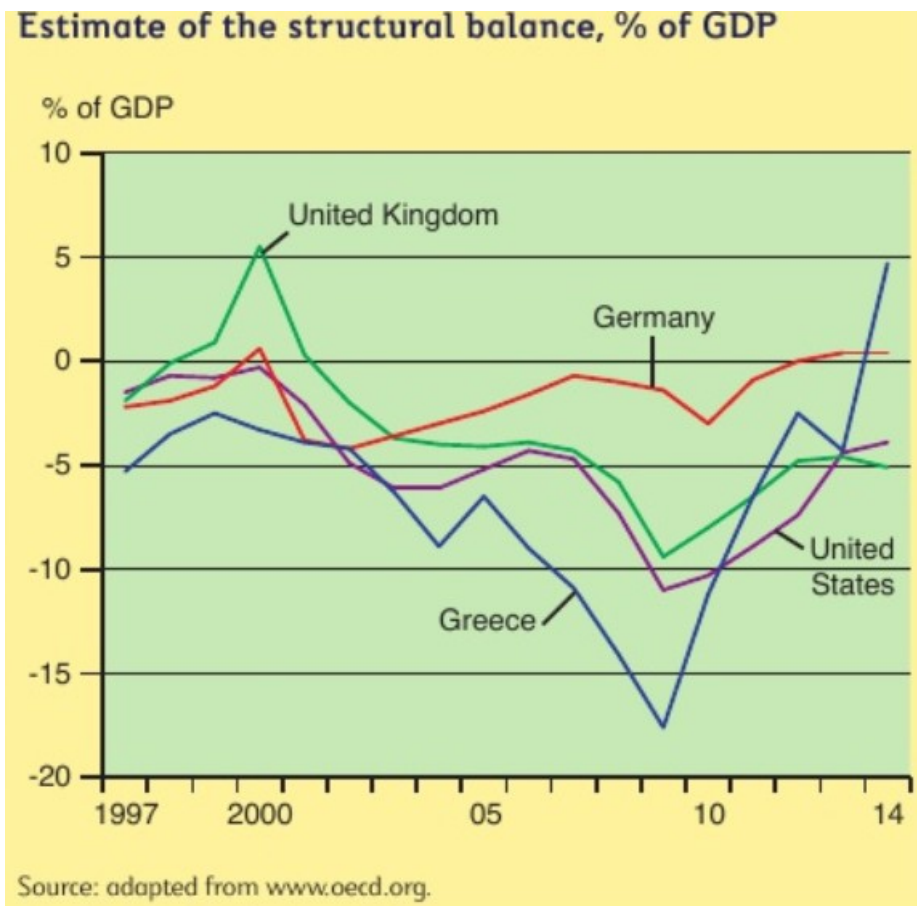


a) Which country over the period:

(i) Had the highest average structural deficit

(ii) Saw the largest improvement in its structural deficit?

b) Greece cut its structural deficit from 2010 onwards by cutting public spending and raising taxes. These fiscal austerity measures cut Greek GDP by one quarter between 2009 and 2013. Explain why fiscal austerity cut GDP



## **Costs and benefits of large budget deficits/national debts**

### **Problems with high budget deficits and/or high national debts**

#### **Opportunity cost of increased debt repayments**

Governments borrow money by selling bonds. The bondholders receive a rate of return from holding these assets. If the government continues running large budget deficits then more money must be repaid with interest. The UK now pays more in debt interest than is spent on Defence. What is the opportunity cost of this?

#### **Confidence of financial markets**

If governments run a large budget deficit then investors in bond markets may lose confidence of the ability of the government to repay the loans. In this case they may be less willing to lend to governments if there is a higher risk they will not get their money back. As a result, the price of the bonds will fall and the interest rate will rise. This is because bondholders receive a fixed payment for owning bonds. If the price of the bond falls the fixed payment becomes larger as a % of the price the bondholder pays for the bond.

A country may even face a debt crisis where they are unable to borrow except at very high rates of interest. Give examples of countries who were forced to request a bailout:

#### **Evaluation**

When are countries more likely to face a debt crisis? Is this likely to happen to the UK?

#### **Crowding Out**

Crowding Out arises when increased government spending reduces private sector spending. There are 2 types:

#### **Resource crowding out**

This is where the government uses labour and capital at the expense of the private sector. For example, if the government builds new infrastructure such as railways or motorways they may need to employ engineers and construction workers. This could mean there are less skilled workers available to work in the private sector.

#### **Evaluation**

When is this less likely to be a problem?

## **Financial crowding out**

This is where increased government borrowing reduces private sector investment. If the government needs to borrow more they will need to offer higher interest rates to bondholders to persuade them to lend to the government. If the government offers higher rates of interest then banks will also have to offer higher rates of interest to savers to attract savings and will charge higher rates of interest to borrowers. How will higher interest rates affect investment?

### **Evaluation**

To what extent is increased government borrowing responsible for low levels of investment in the UK?

What effect does quantitative easing have on interest rates?

## **Reasons not to reduce the budget deficit quickly**

Lower growth and higher unemployment

Government Spending represents an \_\_\_\_\_ into the circular flow of income

Taxation represents a \_\_\_\_\_ from the circular flow of income.

If the government reduces the budget deficit there is a smaller net \_\_\_\_\_ into the circular flow of income and Aggregate Demand will \_\_\_\_\_.

Why could there be a negative multiplier effect?

What is the effect on output and employment if austerity measures are implemented?

Why could this make it harder to reduce the budget deficit?

## **Conclusion**

# Coronavirus: Chancellor unveils £350bn lifeline for economy

BBC Website: 17<sup>th</sup> March 2020



Rishi Sunak: "We have never in peacetime faced an economic fight like this one"

The government has unveiled a package of financial measures to shore up the economy against the coronavirus impact. It includes £330bn in loans, £20bn in other aid, a business rates holiday, and grants for retailers and pubs. Help for airlines is also being considered.

Chancellor Rishi Sunak told a press conference it was an "economic emergency. Never in peacetime have we faced an economic fight like this one." And he promised that if this package was not enough, he would go further.

From the hospitality industry to the airline sector, companies have warned that their long term survival is under threat. Mr Sunak said: "This is not a time for ideology and orthodoxy, this is a time to be bold, a time for courage. I want to reassure every British citizen this government will give you all the tools you need to get through this.

"That means any business who needs access to cash to pay their rent, their salaries, suppliers or purchase stock will be able to access a government-backed loan or credit on attractive terms. "And if demand is greater than the initial £330bn [for loans] I'm making available today, I will go further and provide as much capacity as required. I said whatever it takes, and I meant it," he said.

Prime Minister Boris Johnson said during the same media briefing that "we must do whatever it takes to support the economy". He added: "This a time to be bold, to have courage. We will support jobs, we will support incomes, we will support businesses... We will do whatever it takes."

## Question

Explain the fiscal policies the government is using to support the economy

## Monetary policy revision

### **Definition**

The use of changes in the rate of interest, the money supply and the exchange rate to influence the rate of growth of aggregate demand and the rate of inflation

### **The Monetary Policy Committee (MPC)**

- The **Monetary Policy Committee** (MPC) meets at the Bank of England. It is chaired by the Governor of the Bank. There are 9 members in total, 5 from the Bank and 4 independent experts.
- The MPC meets monthly to decide on the Bank Rate and the amount of QE
- The MPC is responsible for meeting the government's inflation target
- The MPC publishes the minutes of its meetings (8 times a year) and if the inflation target of 2% is missed the Governor must send an open letter to the Chancellor

Each member of the MPC has expertise in the field of economics and monetary policy. Members do not represent individual groups or areas. They are independent. Each member of the Committee has a vote to set interest rates at the level they believe is consistent with meeting the inflation target. The MPC's decision is made on the basis of one-person, one vote. It is not based on a consensus of opinion. It reflects the votes of each individual member of the Committee.

Source: Bank of England

### **The Bank's remit and the inflation target**

- ✓ The inflation target is 2% CPI inflation. The target is announced each year in the Budget
- ✓ Although the Bank has independence, in extreme circumstances the Government could instruct the Bank for a limited period
- ✓ The target is NOT the lowest possible rate of inflation. Inflation below target is considered just as undesirable as above the target.
- ✓ If the target is missed by 1% point or more, either side of target, then the Governor has to write an open letter to the Chancellor explaining why the target has been missed and what can be done to get back to target.
- ✓ It is recognised that it is very unlikely that inflation will be 2% all the time. There are many factors that change all the time making it unlikely the target will be hit exactly. The idea is that the MPC aims to get inflation back to target within a reasonable time.

### **Effect of a rise in interest rates:**

1. Explain the effects of a rise in interest rates on consumer spending
2. Explain the effects of a rise in interest rates on investment



3. Read the paragraph below and complete the sentences below to explain the effect of a rise in interest rates on the demand for exports and imports.

### Interest rates and exchange rates

A higher UK relative interest rate (compared to other countries) will attract hot money flows into the UK to take advantage of higher interest on bank deposits. This means depositors will need to buy £s in the foreign exchange market. This causes a rise in the demand for £s and a rise in the exchange rate.

A fall in the UK rate of interest would cause hot money outflows and a fall in the exchange rate.



A rise in UK interest rates will attract saving or hot money to UK banks. Therefore, the demand for the pound will \_\_\_\_\_ and the value of the pound will \_\_\_\_\_. A \_\_\_\_\_ in the value of the pound will cause the price of exports to \_\_\_\_\_ and the demand for exports to \_\_\_\_\_. It will also cause the price of imports to \_\_\_\_\_ and the demand for imports to \_\_\_\_\_. A rise in the value of the pound will usually cause a worsening of the current account balance (ie a larger current account deficit). This is assuming the demand for imports and exports is price \_\_\_\_\_.

### The effect on Aggregate Demand

Explain the effect of rising interest rates on Aggregate Demand by completing the following sentence

A rise in interest rates will usually cause consumer spending to \_\_\_\_\_, investment to \_\_\_\_\_, the value of exports to \_\_\_\_\_ and the value of imports to \_\_\_\_\_. Therefore AD is likely to \_\_\_\_\_ and inflation will \_\_\_\_\_.

Draw a diagram to show how a rise of interest rates would reduce the growth of AD and therefore reduce the rate of inflation:

## **Quantitative easing**

### **What is quantitative easing?**

Quantitative easing means that the Bank of England electronically creates money and uses this to purchase assets in the economy. The Bank of England increased the money supply by £200 billion on Thursday 19<sup>th</sup> March 2020 following the coronavirus pandemic.

### **Is this the same as printing money?**

The Bank of England doesn't necessarily need to print more money. Only a very small % money in the UK economy is in notes and coins. Most money in the economy appears as a number on a computer screen in a bank account.

### **Why has this policy been used?**

The Bank of England creates money in order to increase Aggregate Demand. This is in order to keep inflation at 2% and prevent a deep recession and deflation. In recent years, the Bank of England increased the money supply following the financial crisis, the EU referendum and the Coronavirus health crisis.

### **What assets were purchased?**

The Bank of England has purchased £645 billion of bonds since 2008-9. Most of these are government bonds, but they also purchased a few corporate bonds.

### **What is a government bond?**

If the government wishes to spend more than they raise in revenue they can sell bonds. The bondholder receives a rate of return on these assets. For example, the government may sell a bond for £100 and then pay out £10 each year to the bondholder. The bondholder would make a £10 profit or a 10% rate of return. These bonds can be bought and sold on the bond market. If the price of the bond goes up then the interest rate will fall as the amount payable on the maturity date will remain the same. Therefore, there is an inverse relationship between the price of the bond and the interest rate or yield. Bonds are usually bought by large financial institutions such as banks, pension funds, hedge funds, large companies or private investors.

### **How could the Bank of England 'reverse' the policy and reduce the money supply?**

The Bank of England could reduce the money supply by selling their bonds to private sector organisations. The money used to buy these bonds is withdrawn from the economy by the Bank of England.

## How does QE work?

### 1. Increased cash for those who sell the assets

If individuals or firms sell bonds to the Bank of England then they will gain cash from selling these bonds which they can then spend in the economy. As the demand for bonds rises, the price of the bonds will rise and investors can sell them for a profit. This may provide more funds for businesses to invest and more funds for banks to lend. However, following the recession the banks were unwilling to lend so the Bank of England bought most of the bonds from the non-bank private sector.

### 2. Higher prices of other assets

As the Bank of England buys bonds the price of bonds rises and the interest rate on the bonds will fall. Therefore, investors may look to buy other assets instead. This has caused a rise in demand for shares and a rise in the value of shares on the stock market. How would a rise in share prices affect Aggregate Demand?

### 3. Lower long-term interest rates

If the Bank of England buys government bonds the price of the bonds will \_\_\_\_\_ and the interest rate on the bonds will \_\_\_\_\_. This will \_\_\_\_\_ long term market interest rates as the commercial banks will be able to offer \_\_\_\_\_ interest rates to savers. This is because there is less competition for savings from the government. This should also lead to \_\_\_\_\_ rates of interest for borrowers.

How would a fall in long-term interest rates affect consumption and investment?

### 4. Reduced value of the £

If there is an increase in the money supply this is likely to reduce interest rates. How will this affect the value of the pound?

How is this likely to be beneficial for the UK economy?

## **Evaluation of QE**

### **Effect on output and inflation**

It is estimated QE has contributed to higher growth and inflation. (The Bank estimates that the first £200bn of QE had the effect of boosting GDP by 1.5-2% and CPI inflation by 0.75-1.5%) Martin Weale (MPC member) and Tomasz Wieladek estimate that if the Bank of England purchase government bonds worth 1% of nominal GDP this would lead to a rise of about 0.18% of real GDP and 0.3% in CPI in the UK.

It has been estimated that in the United States if the Federal Reserve purchase government bonds worth 1% of nominal GDP this would lead to a rise of about 0.36% of real GDP and 0.38% in CPI in the US.

It is however very hard to measure its precise effects. We don't know what would have happened if there was no increase in the money supply.

### **Effect on borrowing**

It is certainly true that QE has made it much easier (and cheaper) for governments to borrow. Interest rates on UK government bonds have been very low since 2009.

Initially QE did not result in an increase in bank lending due to a lack of confidence in the financial sector. However, in recent years bank lending and consumer borrowing have been much stronger as confidence returned.

### **Negative effects of QE**

QE has been damaging to savers and pensioners. It has hampered their spending power. Why is this?

Why could QE create greater inequality?

Some claim that a large rise in share prices is unsustainable. Why could a rise in share prices create macro-economic instability?

### **Effects of reversing the policy**

In recent years, the Federal Reserve has begun to reverse the policy of Quantitative easing by selling their bonds back onto the market. This reduces the money supply by withdrawing money from the economy. What effects would this have?

## **Coronavirus: UK interest rates cut to lowest level ever**

BBC Website: 19th March 2020

The Bank of England has cut interest rates again in an emergency move as it tries to support the UK economy in the face of the coronavirus pandemic. It is the second cut in interest rates in just over a week, bringing them down to 0.1% from 0.25%. Interest rates are now at the lowest ever in the Bank's 325-year history.

The Bank said it would also increase its holdings of UK government and corporate bonds by £200bn with an effort to lower the cost of borrowing. It's a dramatic move by Andrew Bailey, who only took over from Mark Carney as Bank of England governor on Monday.

Last week, the Bank announced a 0.5% cut in rates to 0.25% and a package of measures to help businesses and individuals cope with the economic damage caused by the virus. The move coincided with additional measures announced by Chancellor Rishi Sunak in the Budget. However, the Bank said the measures it had taken so far were not going to be enough, and believed "a further package of measures was warranted". "The spread of Covid-19 and the measures being taken to contain the virus will result in an economic shock that could be sharp and large, but should be temporary," it added.

The move comes as international investors are trying to secure more cash, in particular dollars. This means they're ditching assets such as UK government gilts, which are the "IOU" notes the government hands over to private investors willing to lend it money. As the gilts are sold, the price drops and the yield - the effective interest rate compared to the price - rises. What that means is the cost of borrowing to private investors as well as to the government rises - just when the Bank of England wants it to fall and the government is about to borrow huge sums. The Bank of England's plan to buy £200bn more bonds is aimed at fighting that effect.

The fresh rate cut takes interest rates to the lowest they can feasibly go, said Jeremy Thomson-Cook, chief economist at payments company Equals Group. "Lower rates and additional quantitative easing can keep markets satisfied and borrowing costs for both businesses and the government down but unless money is forced into the hands of small businesses soon, then it will be for nothing; they are the ones laying off staff due to a liquidity shock," he added.

### **Questions**

1. Explain the monetary policies the Bank of England announced on 19<sup>th</sup> March?
2. How does Quantitative Easing affect bond prices and the interest rates on government bonds?
3. What are the limitations of monetary policy in dealing with this crisis?

#### **4.5.4 Macroeconomic policies in a global context**

a) Use of fiscal policy, monetary policy, exchange rate policy, supply-side policies and direct controls in different countries, with specific reference to the impact of:

- measures to reduce fiscal deficits and national debts
- measures to reduce poverty and inequality
- changes in interest rates and the supply of money
- measures to increase international competitiveness

b) Use and impact of macroeconomic policies to respond to external shocks to the global economy

c) Measures to control global companies' (transnationals') operations:

- the regulation of transfer pricing
- limits to government ability to control global companies

d) Problems facing policymakers when applying policies:

- inaccurate information
- risks and uncertainties
- inability to control external shocks

#### **Use of macroeconomic policies in different countries**

As the world economy recovered from the financial crisis many European governments introduced austerity measures to reduce their budget deficits. This meant cutting government spending and raising taxes. For example, the German government has chosen to run budget surpluses in recent years. The Greek government was forced to cut spending and raise taxes in order to gain a bailout loan from the EU and the IMF.

Many governments have introduced policies to reduce inequality and poverty. For example, the Brazilian government introduced a welfare programme called 'Bolsa Familia' which has helped to reduce poverty in Brazil.

#### **Use of macroeconomic policies to respond to external shocks to the global economy**

Governments around the world have used fiscal policy to support their economies following the Coronavirus pandemic. For example, the French government has offered loans to businesses to prevent them from becoming insolvent. Following the Financial crisis of 2008-9 the American and Chinese governments increased borrowing to finance new infrastructure projects and increase output and employment through the multiplier effect. Central banks around the world have responded to the Coronavirus pandemic. For example, the US central bank, the Federal Reserve cut interest rates to try to increase output and employment.

#### **Measures to control global companies**

The problems of controlling multinational companies (MNCs) or transnational companies (TNCs) were discussed in the globalisation booklet. It is difficult for governments to impose regulations on TNCs to protect workers' rights or to protect the environment. This is because TNCs may choose to move to another country where the regulations aren't as tough. It is also difficult for governments to force TNCs to pay taxes. This is because TNCs may choose to move to another country with lower business taxes or they can find loopholes in the tax system to avoid paying tax such as transfer pricing.

#### **Problems facing policymakers when applying policies**

It is always difficult for governments to implement fiscal policy and it is difficult for central banks to implement monetary policy. This is because the economic data used to make decisions could be inaccurate and out of date. For example, GDP figures are an estimate of the total output of an economy but it is quite challenging to measure the output of all the businesses and public sector organisations. The figures are usually revised several times as more information becomes available. Therefore, policy makers may be using statistics that are out of date. They may not realise the economy has fallen into a recession or they may not realise the depth of the recession. Therefore, the policy response may be too slow and too weak to prevent a deep recession.