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Economics A

Theme 2 The UK economy – performance and policies

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STUDENT GUIDE

PEARSON EDEXCEL

Economics A

Theme 2

The UK economy: performance and policies

Contents

Content Guidance

Questions & Answers

Content Guidance

Measures of economic performance

Economic growth

GDP as a measure of economic growth

Gross domestic product (GDP) is the total market value of the goods and services produced in a country in a year. It is given as the value of **production**, in the local currency. On its own it is almost meaningless: we need to know how many people there are, what the currency is worth in terms of its spending power in the local economy and what the changes have been since the previous measure.

Production The value of goods and services produced in a given period of time.

There are two meanings of the term **economic growth**: actual economic growth and potential economic growth.

Actual economic growth is an increase in real incomes or real gross domestic product (GDP).

Potential economic growth is an increase in the productive capacity in a country. This could be caused by an increase in the labour supply, an increase in investment or an increase in **productivity**. It can be used to show how an economy is performing relative to its output capacity. Differences between the two are known as the **output gap**. Although it is a useful measure, potential economic growth is hard to record accurately. (See output gaps on pp. 38–39.)

Productivity This is usually measured as the output per worker or output per worker per hour worked.

GDP is the sum of all goods and services produced in a country in a year. It is also the sum of all incomes earned in a country in a year and the sum of all expenditure in a year. GDP does not include earnings by its residents while outside the country. Consider it as a circular flow of income where for everything that is earned, something must be produced and something must be spent. The government measures all three flows — output, income and expenditure — which should, in theory, amount to the same figure (approximately £2.12 trillion in the UK in 2018). However, in practice, errors and omissions mean that there are some discrepancies between these three measures of GDP.

Knowledge check 1

Why is economic growth not the same as GDP?

Increases in GDP are therefore a sign that a country is experiencing increasing incomes, output and spending. On the face of it, this is a good thing because people can have more goods and services, implying that they have a higher standard of living. However, there are many reasons why this might not be the case. If someone earns more, it may be that they work longer hours and have more work pressures, or that they have a higher cost of living such as increased mortgage payments. Pollution is likely to increase as they travel greater distances and there are a whole range of external costs that may be incurred.

Exam tip

The rate of increase in GDP in real terms is known as 'actual economic growth'. It means there is more spending, higher incomes and higher output in the economy.

Distinction between 'real' and 'nominal' measures

If economic growth is measured using GDP, the value is meaningless unless the figures are given in **real values** rather than **nominal values**. Real values have been adjusted to remove the effects of inflation, whereas nominal values are the current incomes that are unadjusted for changes in average prices.

Distinction between 'total' and 'per capita' measures

Furthermore, for GDP to have any significance in terms of standards of living, figures must be calculated on a per head (**per capita**) basis. If a country's income increases by 10% but the population increases by 20%, people would, on average, be worse off per head.

Distinction between 'value' and 'volume' measures

Another important distinction required when measuring economic growth is to look at **values** rather than **volumes**. Firms might achieve higher sales figures because they sell more in volume or number of products, but if those sales are worth less per unit then they are not seeing an increase in the value of their output. As an example, consider Germany and China. Germany is the biggest exporter in the world by value, whereas China exports much more in terms of volume of goods.

Exam tip

Standards of living include factors besides economic growth, although economic growth has a part to play in increasing living standards if the increased incomes are spread out across the economy.

The distinction between GDP and GNI

Gross domestic product (GDP) is the total market value of all goods and services produced in the country in a given year. GDP does not include earnings by its residents while outside of the country.

Gross national income (GNI) is an augmented version of GDP. GNI is GDP plus net income paid into the country by other countries, for example interest and dividends. The 'net income' is calculated by subtracting profits and income that goes abroad from foreign-owned companies from profits and income earned overseas from locally owned firms.

Comparison of rates of growth between countries and over time

An increase in GDP of 10% in one country does not mean that the country is doing better than a country with an increase of 5%. Similarly, changes over time have a different meaning: for example, increases in GDP in Japan in the 1960s were 10% a year compared to only 4% a year in the 1980s, but the 1980s figure was based on a much larger economy. An evaluation of growth figures depends on:

- how well-off the country is in the first place, i.e. its level of GDP
- how much of the output is self-consumed, so does not appear as GDP
- methods of calculation and reliability of data

Real values Values that have been adjusted to remove the effects of inflation. The effects are removed using an index number that represents the changes in prices and the results are called 'constant values'.

Nominal values Values that are measured in money terms. Nominal figures are the unadjusted, 'current values'.

Exam tip

Real values have the effects of inflation removed. If inflation is 2% and your wages rise by 2%, your real wages have not risen at all.

Exam tip

GDP is best measured in real terms, per capita.

Knowledge check 2

What is the difference between constant (real) GDP and current (nominal) GDP?

Knowledge check 3

What is the difference between GDP and GNI?

Equilibrium level of real national output

When *AD* meets *AS* there is an **equilibrium** point, which determines the price level and real GDP of a country. An equilibrium is a balancing point where there is no tendency for the price level (*PLe*) or real output (*Ye*) to change. This is illustrated in Figure 7.

When there is a shift in *AD* or *AS*, there is a movement away from the original equilibrium to form a new equilibrium, as follows:

- If the price level was higher than the new equilibrium (or point at which the new *AD* and *AS* cross), there would be a tendency for the price level to fall because aggregate supply would be greater than aggregate demand and there would be a surplus of goods and services.
- If the price level was lower than the new equilibrium, there would be shortages of goods and services and the price level would start to rise in order to make sure that everyone could get what they were prepared to pay for.
- If, for example, a worldwide recession and a fall in *AD* occurred, then the price level would be likely to fall.

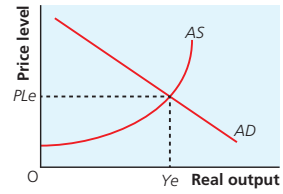

Figure 7 The equilibrium level of real national output

Useful exercise

Sketch an *AD/AS* diagram and mark on the equilibrium point. Shift *AD* or *AS*, and then mark on the new equilibrium.

Exam tip

Use *AS/AD* diagrams wherever appropriate in your examination answers and be sure to explain them in your written analysis.

The multiplier

The **multiplier ratio** is the ratio of a change in equilibrium real income (GDP) to the autonomous change (the injection) that brought it about. In other words, it is the number of times a change in GDP exceeds the change in net injections that caused it. It is the knock-on effect on incomes when injections and withdrawals change. For example, if there is a £10 billion increase in export values, the inward flow of money to the UK will be re-spent within the UK. When the money is spent, it becomes other people's incomes. These incomes will be re-spent, and so on. Consequently, if the final increase in GDP is £20 billion then the value of the multiplier would be 2.

Exam tip

The multiplier is a factor that shows the change in total income as compared to an initial injection. So a multiplier of 2 means that a £1 billion injection increases incomes by £2 billion.

The most important factor in determining the size of the multiplier is the size of the withdrawals from the circular flow, i.e. what proportion of the additional income is saved by households, what proportion is spent on imported goods and what proportion is paid to the government in the form of taxation.

The multiplier (*K*) is inversely proportional to the **marginal propensity to withdraw (MPW)**, i.e:

$$K = \frac{1}{\text{MPW}}$$

Marginal propensity to withdraw (MPW) A measure of how much of any extra pound earned is saved, taxed or spent on imports.

MPW is the proportion of one unit of additional national income which is withdrawn from the circular flow, or the sum of the **marginal propensity to save (MPS)**, **marginal propensity to tax (MPT)** and **marginal propensity to import (MPM)**, which can be summarised as MPS + MPT + MPM. Therefore, the formula can also be written as:

$$K = \frac{1}{\text{MPS} + \text{MPT} + \text{MPM}}$$

Perhaps the most efficient way to write this is as:

$$K = \frac{1}{1 - \text{MPC}}$$

where MPC stands for the **marginal propensity to consume**.

Marginal propensity to consume (MPC) A measure of how much of any extra pound earned is spent within the economy.

If you add together the MPC and MPW you get 1, i.e. the total amount. Therefore if MPC + MPW = 1, a rearrangement of the formula gives the value of MPW as (1 – MPC).

The importance of the multiplier is that if there is any change in spending in an economy, the final impact on incomes (GDP) will be greater than the initial injection. The greater the leakages, the smaller the multiplier. The formula is based on how much of any extra pound earned is re-spent within the economy, i.e. the marginal propensity to consume (MPC). The size of the multiplier in the UK is approximately 1.4, but in developing countries it is often higher, which partly explains their higher growth rates. For example, in a country with a multiplier of 3, a net injection of $10 million causes a $30 million increase in incomes in total.

The larger the value of the multiplier, the greater the shift in *AD*. For example, if the multiplier is 1.1 in Japan, a ¥100 trillion injection into the economy by the Japanese government will have a ¥110 trillion positive impact on *AD*. However, if the multiplier is 2.0 the effect is ¥200 trillion. This can be both in a positive and a negative direction. So an increase in leakages, for example because imports rise, will have a larger negative impact on *AD*, depending on the size of the multiplier.

Useful exercises

- Do some calculations with the multiplier ratio. Since quantitative skills are part of the specification, this is one way in which they might be tested. The calculations are easy once you have done a few.
- A good site for mortgage information is the Money Advice Service website: www.moneyadviceservice.org.uk/en/articles/mortgages-a-beginners-guide.
- You might also visit the website of the Council of Mortgage Lenders at www.cml.org.uk or Mortgage Guide UK at www.mortgageguideuk.co.uk for accessible explanations and arguments about anything to do with mortgages.

Summary

- Income (e.g. export income) is a flow concept, whereas wealth (e.g. capital assets) is a stock concept. Income is measured in real GDP. Wealth in the UK was over £10 trillion in 2018: five times the GDP of the economy. See the gov.uk website at www.ons.gov.uk for the latest figures.
- In 2018, just over half of the UK's wealth was held in the form of land. The rest is in pension funds, life insurance funds, capital assets and shares.
- Changes in injections have multiplier effects on the level of total spending in the economy. An increase in injections has a proportionately larger effect on GDP.
- Changes in leakages affect the size of the multiplier. The larger the leakages, the smaller the value of the multiplier.

Practice paper 1

Section A

Section A questions are fairly straightforward and the danger is in writing too much or spending too much time on this section. You might expect to be given data on one of the four measures of economic performance and the skill will be measured in how carefully you interpret the data. Each of the five questions has a total of 5 marks, 1 mark of which is for the multiple-choice question. The other marks may be awarded for one short-answer question worth 4 marks or two short-answer questions worth 2 marks each.

Answer ALL questions. Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

Question 1

The table below shows CPI levels in 2018 in the UK.

Month	CPI level
January	104.4
February	104.9
March	105.0
April	105.4
May	105.8
June	105.8
July	105.8
August	106.5
September	106.6
October	106.7
November	107.0
December	107.1

Source: ONS

(a) Which one of the following can be inferred from the table for the period January to December 2018? (1 mark)

A The rate of inflation was 2.7%
B The average price level fell
C Prices rose at a constant rate
D The rate of inflation was 2.59%

There is only 1 mark for multiple-choice questions. Ensure you look out for the 'distractor', which is trying to steer you away from the correct answer.

(b) With reference to the data provided, explain the process of calculating the consumer prices index. (4 marks)

The main skill being tested in a question of this nature is knowledge, so it is important to include the key elements of the calculation. Given the start of the question, there will be an application mark for reference to the table.

Student answer

(a) D

(a) The rate of inflation is (change/original value) × 100, so (2.7/104.4) × 100 = 2.59.
1/1 mark awarded.

(b) The CPI is used to measure the average price of a 'basket' of commonly used goods and services in a period relative to some base year. The base year price of the basket is set at 100. The Living Costs and Food Survey (LCF) is used to collect information from a sample of around 7,000 households to determine the contents of a basket of goods and services that households spend their money on. A price survey is also undertaken once a month about changes in the price of the 650 most commonly used goods and services. From this it is possible to calculate changes in the rate of inflation.

(b) There are some elements of the answer here. However, there is no mention of 'weights' that are attached to the items in price indices. These weights reflect the relative importance of the various items in the average shopping basket. Therefore, weights are an important element in the calculation of the CPI because changes in the price of some items would have a greater impact on the rate of inflation than others. There should also be a reference to the table, e.g. that the CPI level increased from 104.4 in January 2018 to 107.1 in December 2018.
2/4 marks awarded.

Total score for Question 1: 3/5 marks.

Question 2

It has been estimated that the marginal propensity to consume is 0.6 in China.

(a) Calculate the value of the multiplier for China. You are advised to show your working. (2 marks)

For this question, you simply need to know the method of calculating the multiplier using the marginal propensity to consume.

(b) Explain the effect of an increase in the marginal propensity to withdraw on the value of the multiplier. (2 marks)

A requirement to understand 'the marginal propensity to withdraw' is an area new to the 2015 specification. Examples will be found in the latest textbooks and in some recent past question papers.

(c) Which one of the following is a likely implication of an initial injection into the circular flow of income from outside the system? (1 mark)

A An increase in the rate of unemployment
B An improvement on the balance of payments as imports rise
C A larger effect on GNI than on GDP
D A larger effect on GDP than the initial injection

This question requires a straightforward definition of the multiplier.

Student answer

(a) $K = \frac{1}{1 - MPC}$

$= \frac{1}{1 - 0.6}$

$= \frac{1}{0.4} = 2.5$

(a) This is clearly understood.
2/2 marks awarded.

(b) If there is an increase in the marginal propensity to withdraw then the value of the multiplier will fall.

(c) D

(c) **1/1 marks awarded.**

Total score for Question 2: 4/5 marks.

(b) The answer is correct but there needs to be some linked explanation to secure the second mark. For example, a simple calculation could be included. If the marginal propensity to withdraw (MPW) increases from 0.4 to 0.5 then the value of the multiplier would fall from 2.5 to 2 because the multiplier is calculated as 1 divided by the MPW.
1/2 marks awarded.

Question 3

(a) In 2018 Malaysia's exports were about 70% of its GDP and it recorded its largest trade surplus since 2012. Ceteris paribus, which of the following is most likely to result from this change in trade surplus between 2012 and 2018? (1 mark)

	Real output	Price level
A	Increase	Increase
B	Increase	Decrease
C	Decrease	Increase
D	Decrease	Decrease

Remember that a trade surplus implies that the value of exports is greater than the value of imports and that net exports (X – M) is a component of aggregate demand. It may be helpful to sketch an *AD/AS* diagram to ensure that you arrive at the correct answer.

(b) Explain one possible reason that might explain why Malaysia recorded its largest trade surplus since 2012. (4 marks)

Only 4 marks are available and 1 mark is for simply stating that exports increased relative to imports. It could be caused by a range of factors, including an improvement in the state of the global economy, a depreciation in Malaysia's currency or an improvement in the quality of its products. Remember that you only need to give one answer.

Student answer

(a) A

(a) This is correct — and it also 'feels' correct. You can probably rule out the answers with 'decrease' in relation to real output. **1/1 mark awarded.**

(b) Malaysia is a large trading nation as evidenced by the fact that exports represent about 70% of its GDP. It is likely, therefore, that Malaysia's exports increased. This may have been caused by an increase in economic growth in its major trading nations. In turn, this would cause those countries to increase their demand for Malaysia's exports so resulting in an improvement in its balance of trade surplus.

(b) This is an efficient answer that makes appropriate use of the evidence provided and offers a valid reason with a linked explanation.
4/4 marks awarded.

Total score for Question 3: 5/5 marks.

Question 4

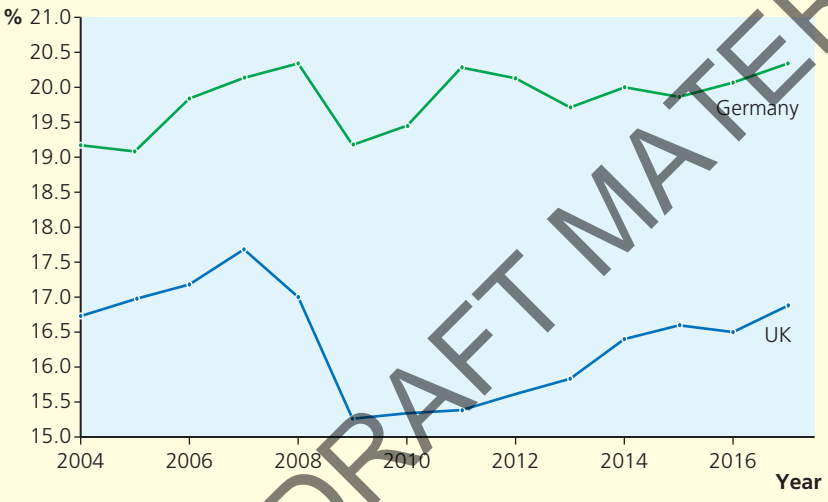

Figure 1 Gross fixed capital formation (investment) as a percentage of GDP in Germany and the UK, 2004–17

Source: World Bank/OECD

(a) Explain the difference between gross investment and net investment. (2 marks)

Remember not to confuse investment with anything to do with buying shares or saving. These are the most common problems with this definition. This is a new part of the specification and the key concept you need to use is depreciation.

(b) Explain one possible reason why gross investment as a percentage of GDP is lower in the UK than in Germany as shown in Figure 1. (2 marks)

Remember to identify a reason and then provide a brief explanation.