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# **GCE AS MARKING SCHEME**

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**SUMMER 2022**

**AS (NEW)  
ECONOMICS - COMPONENT 1  
B520U10-1**

## INTRODUCTION

This marking scheme was used by WJEC for the 2022 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

## GENERAL MARKING GUIDANCE

### Positive Marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme, nor should marks be added as a consolation where they are not merited.

For each question there is a list of indicative content which suggest the range of business concepts, theory, issues and arguments which might be included in learners' answers. This is not intended to be exhaustive and learners do not have to include all the indicative content to reach the highest level of the mark scheme.

The level-based mark schemes sub-divide the total mark to allocate to individual assessment objectives. These are shown in bands in the mark scheme. For each assessment objective a descriptor will indicate the different skills and qualities at the appropriate level. Learner's responses to questions are assessed against the relevant individual assessment objectives and they may achieve different bands within a single question. A mark will be awarded for each assessment objective targeted in the question and then totalled to give an overall mark for the question.

## GCE AS ECONOMICS - COMPONENT 1

## SUMMER 2022 MARK SCHEME

Q1 (a)	Define opportunity cost.	Total 2
	<p><b>AO1: 2 marks</b></p> <p>Award <b>2</b> marks for an accurate complete definition including next best and forgone/given up</p> <p>Award <b>1</b> mark for an incomplete or slightly inaccurate definition.</p> <p><b>Indicative content:</b></p> <p>Opportunity cost is the sacrifice made in making an economic decision, expressed in terms of the next best available alternative foregone.</p>	

Q1 (b)	Assuming that the fund grows at the mid-rate, calculate the opportunity cost, in terms of the individual's final total projected pension fund value.	Total 2
	<p><b>AO2: 2 marks</b></p> <p>Award <b>2</b> marks for correct identification of data that is the next best alternative forgone and correct calculation of the opportunity cost</p> <p>Award <b>1</b> mark for showing the correct working for an opportunity cost but selecting the incorrect data such as at low or high rate to use OR selecting the correct data but expressing the outcome incorrectly</p> <p><b>Indicative content:</b></p> <p>Successful calculation: Starting at 25 the pot would be £269,000. Starting at 45 the pot would be £87,500. Therefore, the opportunity cost is £181,500.</p> <p>As its only 2 marks – award answer expressed as 181,500 (ie without £ sign)</p>	

Q1 (c) Using the data, discuss whether opting out of 'auto-enrolment' by employees is a rational decision. [6]			
Band	AO1	AO2	AO4
	1 mark	3 marks	2 marks
	<i>Is rational decision making understood?</i>	<i>Is the answer in context?</i>	<i>Is the answer debated and judged?</i>
<b>3</b>		<b>3 marks</b> Excellent application  The data is used very effectively to support arguments on the rationality of the decision  Data from tables and text is likely to be used in the argument	
<b>2</b>		<b>2 marks</b> Good application  The data is used effectively to support argument (s) on the rationality of the decision  Data is likely to have been used effectively	<b>2 marks</b> Good evaluation  The well-developed answer comes to a reasoned judgement as to whether it is a rational decision  Likely to have an overall judgement
<b>1</b>	<b>1 mark</b> Limited understanding  Some understanding of rational decision making is shown in terms of more is better than less	<b>1 mark</b> Limited application  The data is used, but its use is underdeveloped, taking the form of occasional references rather than forming strong supporting evidence	<b>1 mark</b> Limited evaluation  Counterpoints are present, but none of them are developed.  Judgement (s) that is/are unsupported will be in this band or a supported one-sided judgment
<b>0</b>	<b>0 marks</b> No understanding	<b>0 marks</b> No valid application	<b>0 marks</b> No valid evaluation

## **Indicative content:**

### **AO1**

Economic agents apply rational thought to each and every decision to achieve the maximisation of personal benefit (utility).

### **AO2**

The earlier opting into a pension saving schemes leads to significantly higher pension pots by the time of retirement, suggesting opting out is not a rational decision as it is in a persons long term self-interest to have saved for retirement as this will maximise their utility in the long run by providing funds to purchase goods later on in retirement.

If workers opt into the scheme at the age of 22 for a 4% contribution, your employer will contribute 3% and the government contributing 1% leading to 8% of your income is saved for retirement. It appears to maximise long term benefit if you receive effectively a 4% increase in income from your employer and government. There is also added growth over time.

The scheme is for those earning over £10,000 a year and can be opted out of, so allows those that can afford to save to do so.

10% (1million) have opted out of the scheme, suggesting that not all employees see this decision as maximisation of personal benefit.

### **AO4**

It may depend on whether employees are prioritising short term or long-term personal benefit. If short term it may make it rational to opt out of the scheme due to the increased opportunity cost of saving.

Clearly the long-term benefits are greater both due to the growth in the pension pot overtime and the 3% extra contributed by employers.

It may depend on other options for saving/investment such as high growth rate funds.

Although this may depend on the circumstances of the individual – if they are finding it hard to pay for necessities then it makes more sense for them to maximise their utility by opting out. Or if they have a large amount of funds to rely on in retirement/family inheritance.

But overall – is it rational? Maybe not but understandable in some circumstances

Q2 With reference to the data, discuss to what extent the German Government should be concerned by the protectionist measures taken by the USA. [10]			
Band	AO2	AO3	AO4
	4 marks	2 marks	4 marks
	<i>Is the answer in context?</i>	<i>Are there developed lines of analysis?</i>	<i>Is the answer debated and judged?</i>
<b>3</b>	<p><b>4 marks</b> Excellent application</p> <p>The data is used very effectively to support arguments on whether the German Government should be concerned by the protectionist measures taken by the US</p> <p>Answer is clearly set in the context of the German economy</p>		<p><b>4 marks</b> Excellent evaluation</p> <p>Comes to a reasoned judgement as to the extent to which the German Government should be concerned by the protectionist measures taken by the US.</p> <p>The evaluation is clearly set in the context of the German economy</p>
<b>2</b>	<p><b>2-3 marks</b> Good application</p> <p>Data sources are used effectively to support arguments on whether the German Government should be concerned by the protectionist measures taken by the US</p>	<p><b>2 marks</b> Good analysis</p> <p>Developed lines of analysis explaining whether the German Government should be concerned by the protectionist measures taken by the US</p>	<p><b>2-3 marks</b> Good evaluation</p> <p>Comes to a judgement as to the extent to which the German Government should be concerned by the protectionist measures taken by the US.</p> <p>Counter arguments are present and are developed</p>
<b>1</b>	<p><b>1 mark</b> Limited application</p> <p>The data is used, but its use is underdeveloped, taking the form of occasional references rather than forming strong supporting evidence</p>	<p><b>1 mark</b> Limited analysis</p> <p>There is a chain of reasoning, but its use of economic theory is underdeveloped explanations are superficial</p>	<p><b>1 mark</b> Limited evaluation</p> <p>Counterpoints are present, but none of them are developed.</p> <p>Judgement (s) that is/are unsupported will be in this band or a supported one-sided judgment</p>
<b>0</b>	<p><b>0 marks</b> No valid application</p>	<p><b>0 marks</b> No valid analysis</p>	<p><b>0 marks</b> No valid evaluation</p>

**Indicative content:****AO2**

Proposed tariffs on \$11bn of EU goods could have a damaging impact on the German economy due to Germany being a member of the EU and a processing economy often taking inputs to create exports.

Net exports for Germany contribute 7.5% of their GDP on average per annum. The proposed tariffs on \$11bn of EU goods could harm this.

Positive net exports as a % of GDP, indicates the German Economy enjoys a significant trade surplus.

Particular exports that may be hit could be German made automobiles and machinery as these are desired luxury products in the USA.

Since the protectionist measures by the USA started, German annual GDP growth has dropped from 2.6% to 0.4%, which is a significant decrease.

One of Germany's top 10 exports is basic metals hit by USA's initial tariffs, harming the German economy.

The USA is the destination for 9% \$134bn of German exports (& this may have been more before 2018) which is the largest export market for German exports.

China is the 3<sup>rd</sup> largest export market for German exports with 7% \$109.9bn and the USA vs China trade war may indirectly impact the German Economy.

**AO3**

The German government should be concerned as tariffs on EU goods increases the price of German exports and so increases prices paid by US importers for German goods. This can make German goods less price competitive in US markets and may encourage US importers/consumers to buy elsewhere either domestic or from businesses in countries not affected by tariffs.

The trade war between the USA and China should concern the German government as this could harm the Chinese economy. The USA is a major export market for the Chinese economy and this has led to a slowdown in the Chinese economy. A slowdown in the Chinese economy can then have the knock-on impact of lower demand for German exports such as machinery. Also, the Chinese economy may suffer a slowdown in consumer spending due to lower confidence leading to less demand for German exports such as luxury cars.

This could harm German GDP as net exports are a proportion of GDP, leading to possibly slower economic growth and no further decreases in unemployment.

Less export demand from Germany could lead to lower business confidence, leading to less investment and lower long-term potential growth.



**AO4**

Although it does appear to have impacted, the forecasted figures suggest a recovery in the German economy – so no lasting impacts.

Although the USA and China are major export markets – only 16% of German exports are to those markets. 84% of exports are to other countries. As such although there could be a decrease in exports, the impact may be less significant than otherwise.

Although a large proportion of exports are within the EU which also could be suffering due to the trade war between the USA and China and tariffs on EU goods.

Net exports only make up 7.5% of German GDP, consumption and government spending are of much greater importance to the German economy based on the GDP component percentages.

However net exports of 7.5% of German GDP does indicate a significant trade surplus which is less usual for western economies and would be a major source of employment and source of investment in the German Economy.

German unemployment is at historic lows, suggesting the potential for consumption lead growth.

However, investment spending and consumer confidence could be harmed as the effects of the trade war filter through. Whilst government spending may continue to be pressured due to austerity that is being favoured in many western economies including Germany.

The initial tariffs on the EU only focused on the basic metal exports of Germany, which although in the top 10 exports are only one of 10 main export products, so the impact may be less than otherwise or could be lessened by gains in exports of other products.

How concerned they should be may depend whether the new tariffs are implemented and the type of goods targeted. If the tariffs are placed on vehicles and machinery then this could have a more dramatic impact on German exports.

It may depend on how long the US protectionist measures continue for. If a trade deal with China and/or the EU is agreed and protectionist measures reduced then the German government should see less difficulties for exports and the impacts lessened.

Q3 (a) Using the data, analyse how the level of consumption in the economy may have changed between 2011 and 2019. [6]		
Band	AO2	AO3
	3 marks	3 marks
	<i>Is the answer in context?</i>	<i>Is the data's impacts on consumption explained?</i>
<b>3</b>	<p><b>3 marks</b></p> <p>Excellent application</p> <p>Data is used very effectively to support arguments on how consumption may have changed since 2011</p> <p>Rate of relative % change of wage vs price inflation from a period of real wage growth and real wage decline is shown</p>	<p><b>3 marks</b></p> <p>Excellent analysis</p> <p>Well - developed lines of analysis explaining how the difference in wage inflation and price inflation can influence consumption over the four periods</p> <p>Real wage growth, decline and thus the overall net/total consumption change is referred to</p>
<b>2</b>	<p><b>2 marks</b></p> <p>Good application</p> <p>Data is used effectively to support arguments on how consumption may have changed since 2011</p> <p>Data from both a period of real wage growth and real wage decline is used</p>	<p><b>2 marks</b></p> <p>Good analysis</p> <p>Developed lines of analysis explaining how the difference in wage inflation and price inflation can influence consumption over the time periods identified</p> <p>Real-wage growth and decline is referred to</p>
<b>1</b>	<p><b>1 mark</b></p> <p>Limited application</p> <p>Data is used, but a limited range has been used</p>	<p><b>1 mark</b></p> <p>Limited analysis</p> <p>There is a chain of reasoning, but its use of economic theory is underdeveloped; explanations are superficial.</p> <p>Use of wage growth or inflations linked to consumption</p>
<b>0</b>	<p><b>0 marks</b></p> <p>No valid application</p>	<p><b>0 marks</b></p> <p>No valid analysis</p>

**Indicative content:****AO2**

2011-2015: CPI 1.5-2% higher than wage growth, thus in real terms households are poorer.

Late 2015, through to end 2016 wage growth much higher than CPI inflation (wage growth 2% or higher and inflation at 0% to 0.5%) suggesting in real terms households are seeing real term income growth.

2016 to 2017 wage growth continues to be higher than CPI inflation but the difference in growth begins to narrow suggesting in real terms that households are becoming richer but at a slower rate.

2017 to 2018 Inflation exceeds wage growth again (3% compared to 2/2.5%). Starts off larger and then at a slower rate.

2018 to 2019 wage growth starts to exceed CPI inflation and starts to differ greatly with significantly higher wage growth than inflation by the end of the data.

**AO3**

During periods of real income growth, households should be benefiting from increased discretionary income which can be used to buy goods and services that were previously unaffordable such as cars, holidays, new electronic appliances. As consumption is the measure of domestic spending by households, an increase in household spending should lead to higher domestic consumption.

And vice a versa if there was a decrease in real terms income.

A greater amount of time throughout the recent 5 years have wage growth greater than inflation. During this period the difference between wage growth and inflation is greater than the other two periods combined, indicating a net increase in household real income and therefore higher consumption.

However the period between 2011 and 2015: 5 years indicate a prolonged period of real wage decline and also between 2017 and 2018, so it could be argued that in terms of real wages households have at best only seen a small net increase.

Q3 (b) Based on this data, consider whether UK unemployment is likely to increase or decrease from 2019 onwards. [6]			
Band	AO2	AO3	AO4
	2 marks	2 marks	2 marks
	<i>Is the answer in context?</i>	<i>Are the potential impacts of changes in real wages on unemployment explained?</i>	<i>Is the answer debated and judged?</i>
<b>2</b>	<p><b>2 marks</b> Good application</p> <p>Numeric data and non numeric is fully used effectively to support argument(s)</p>	<p><b>2 marks</b> Good analysis</p> <p>Developed lines of analysis explaining how a growth in real wages can lead to lower unemployment</p>	<p><b>2 marks</b> Good evaluation</p> <p>The answer comes to a reasoned judgement on whether you can predict unemployment to rise or fall</p> <p>Counter argument(s) are present and developed</p>
<b>1</b>	<p><b>1 mark</b> Limited application</p> <p>Learner makes reference to the data or use of the non-numeric data to support argument</p>	<p><b>1 mark</b> Limited analysis</p> <p>Limited development and analysis of how a growth in real wages can lead to lower unemployment</p> <p>There is a chain of reasoning, but its use of economic theory is underdeveloped; explanations are superficial</p>	<p><b>1 mark</b> Limited evaluation</p> <p>Counterpoints are present, but none of them are developed.</p> <p>Judgement (s) that is/are unsupported will be in this band or a supported one-sided judgment</p>
<b>0</b>	<p><b>0 marks</b> No reference is made to the data</p>	<p><b>0 marks</b> No valid analysis</p>	<p><b>0 marks</b> No valid evaluation</p>

**Indicative content:****AO2**

Since 2019 wage growth has been rising faster than inflation and at the start of 2019 the wage growth was 3.3% and inflation at 1.8%, then rising to 3.8% and 2% inflation.

Unemployment was at historic lows of 3.9% indicating a tight labour market where employers may be finding it hard to recruit labour with the required skill set, especially in high skilled positions.

There were 853,000 vacancies throughout the UK even with low unemployment, possibly indicating immobility in the labour market or skills gap.

Uncertainty due to the ongoing Brexit negotiations and lack of clarity over the future relationship could harm both business and household confidence.

**AO3**

Given the increase in real income growth (& net real income growth for the period before 2018) due to wage growth greater than CPI inflation, then consumption could be rising. As there is an increase in consumption then this should lead to higher demand for businesses – both retail and business to business.

In order to increase output, they could look to hire increased workforce or be investing and expanding, thus requiring increased workforce.

**AO4**

However, 2018-19 was during a period of uncertainty while the UK negotiated to leave the EU with no final agreement in place by April 2019, which may have created a level of uncertainty in the UK economy with firms within the UK delaying investment. Delayed investment would lead to less job creation.

Increases in wages can increase costs for firms, which could impact on profits either leading to lower investment rates and job creation or firm looking to increase efficiencies by possibly replacing labour with capital.

The increase in wages could feed through to higher inflation in the future, impacting consumption and associated job creation

Unemployment is at historic lows and not necessarily being caused by a lack of consumption but factor immobility. Hence an increase in real income may only have a small impact on unemployment, decreasing it by a small percentage only.

Given only 1 year of data, it is hard to judge what will happen to unemployment from 2020 onwards. This may essentially depend on the withdrawal agreement with the EU. A “hard” Brexit may be a large disruptive force and leading to significantly lower consumption and investment leading to higher unemployment. Where as a “soft” Brexit may support future jobs growth to a greater degree.

It may also depend on government and central bank macro-economic policy.

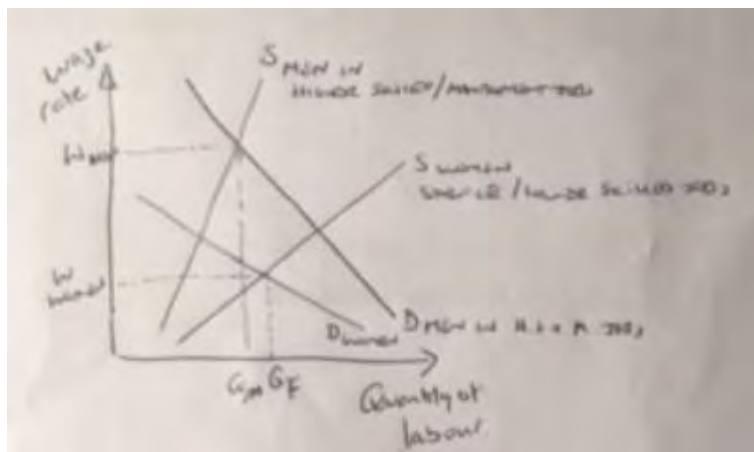
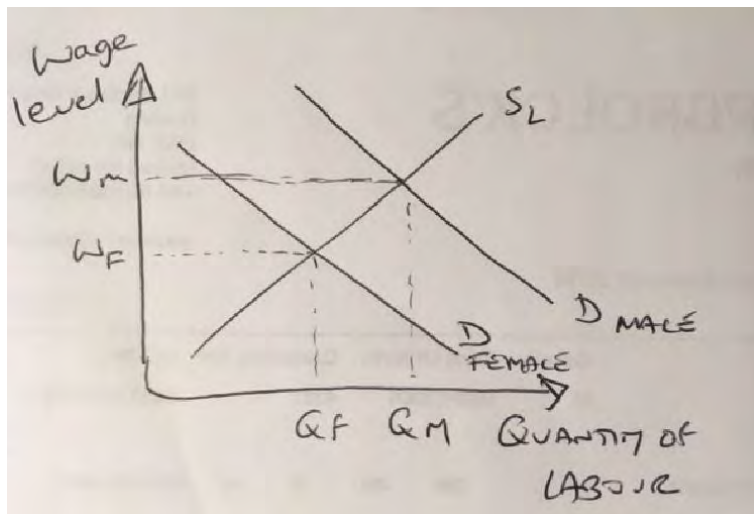
Q4 (a) (i)	Define what is meant by: a mean pay gap.	Total 1
	<p><b>AO1: 1 mark</b></p> <p>Award 1 mark for correct definition.</p> <p><b>Indicative content:</b></p> <p>The mean pay gap is the % difference between a company's total wage spend per woman and its total spend per man.</p> <p>The number is calculated by taking the total wage bill for men and dividing it by the number of men and the total wage bill for divided by the number of women employed by the organisation. Then compare the difference in % terms.</p> <p>So, you add all the wages of one gender at the university together – lecturers, admin staff, security and then divide by the number of that gender working at the university and then compare the difference in % terms.</p>	

Q4 (a) (ii)	Define what is meant by: a median pay gap.	Total 1
	<p><b>AO1: 1 mark</b></p> <p>Award 1 mark for correct definition.</p> <p><b>Indicative content:</b></p> <p>The median pay gap is the difference in pay between the middle-ranking woman and the middle-ranking man.</p> <p>If you line up all the women and men working at the university in two separate lines in order of salary, the median pay gap will be the difference in salary between the woman in the middle of her line and the man in the middle of his.</p>	

Q4 (b) Using a labour market diagram, outline reasons why a gender pay gap may exist at universities. [6]			
Band	AO1	AO1	AO2
	2 marks	2 marks	2 marks
	<i>Is the diagram accurate?</i>	<i>Is understanding of reasons clear?</i>	<i>Have the reasons been supported?</i>
<b>2</b>	<b>2 marks</b> Good understanding  Correct labour market diagram to show wage differentials  There are no meaningful errors	<b>2 marks</b> Good understanding  Clear understanding of reasons why wage differentials exist	<b>2 marks</b> Good application  Good use of context to support reasoning in terms of the male vs female pay gap – in terms of both genders
<b>1</b>	<b>1 mark</b> Limited understanding  The diagram(s) is limited in scope or contains significant labelling errors or generic diagram	<b>1 mark</b> Limited understanding  Knowledge of reasons why wage differentials exist	<b>1 mark</b> Limited application  Limited use of context to support reasoning in terms of the male vs female pay gap – in terms of one gender
<b>0</b>	<b>0 marks</b> Diagram is not valid	<b>0 marks</b> No valid understanding	<b>0 marks</b> No valid application

**Indicative content:**

AO1 Diagram:

**AO1:**

- Interruption of career progression and breaks from the labour market: one gender could take more breaks from the labour market than the other gender.
- Patterns of employment – part-time work, service-based occupations.
- Access to education historically
- Employer discrimination / historic bias causing increased demand for one gender and less demand for another
- Higher participation rate for particular roles, thus Increased supply of labour for one gender compared to previously

Award any other sensible reason. Do not award one gender being more advantageous than another.



**AO2**

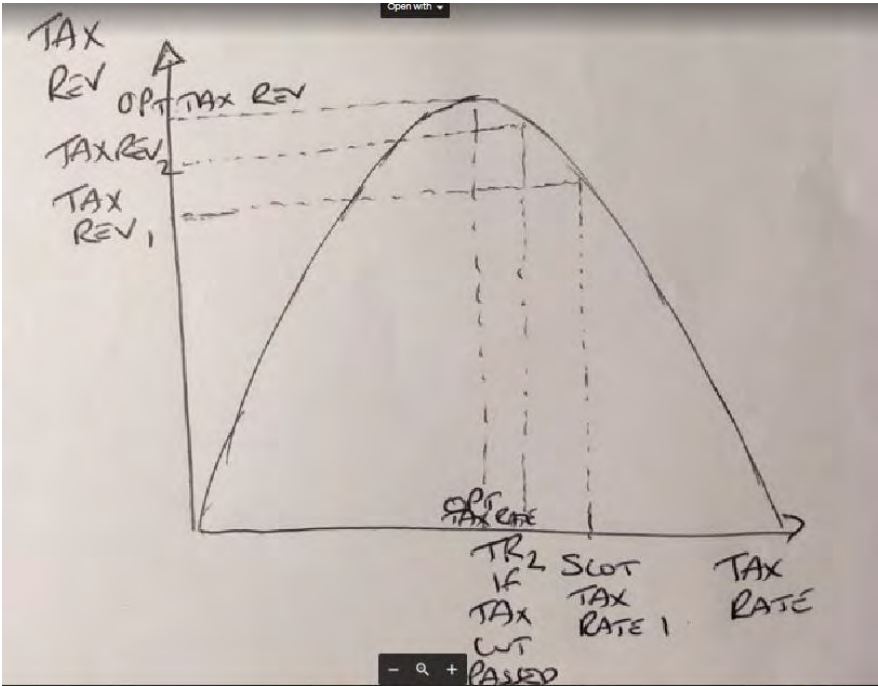
The article outlines that in the past there is a supposed way gap with the male gender receiving higher pay than the female gender.

In Universities this could be due to male employees unfairly taking up a greater % of higher paid roles.

These roles could be academic: Professors in comparison to non-academic with male employees taking up a greater % of academic roles whilst the female gender employees are disproportionately represented in non-academic. Proportionally more females have historically tended to be clustered in service occupations that pay less – e.g. clerical, caring, catering, cleaning in comparison to lecturing positions at University. Lecturing positions are paid more highly.

These roles could be non-academic: Management vs non-management with male employees taking up a greater % of management roles whilst the female gender employees are disproportionately represented in non-academic. Proportionally more females have historically tended to be clustered in service occupations that pay less – e.g. clerical, caring, catering, cleaning in comparison to management at University. Management positions are typically paid more highly.

These roles could be time based: Full time vs part time with male employees taking up a greater % of full time roles due to the nature of the positions and work/life balance requirements. Full-time roles are typically paid more highly.

Q5 (a)	<p>Using a Laffer curve diagram, illustrate how keeping the higher rate of income tax in Scotland could result in less tax revenues than if they had cut taxes in line with the rest of the UK.</p>	Total 2
	<p><b>AO1: 2 marks</b></p> <p>Award 2 marks for correct diagram and labels illustrating the potential gain missed out on if tax break not lowered</p> <p>Award 1 mark for diagram with some errors or limited labelling</p> <p><b>Indicative content:</b></p> <p>Use of the Laffer curve indicating where the higher rate Scottish tax payers would be in comparison to where they would be if the Scottish government was to pass on the tax cut (maybe in comparison to rest of the UK).</p> 	

<b>Q5 (b) Using the data, discuss to what extent you agree that there would be damaging consequences to the Scottish economy from not cutting taxes for their higher earners. [9]</b>			
<b>Band</b>	<b>AO2</b>	<b>AO3</b>	<b>AO4</b>
	3 marks	3 marks	3 marks
	<i>Is the answer in context?</i>	<i>Are the consequences explained?</i>	<i>Is the answer debated and judged?</i>
<b>3</b>	<b>3 marks</b> Excellent application  The data is used very effectively to support arguments on possible damaging consequences  Answer is thoroughly embedded in the data and text	<b>3 marks</b> Excellent analysis  Detailed lines of analysis explaining the possible damaging consequences  All stages in the process are fully explained	<b>3 marks</b> Excellent evaluation  A reasoned judgement as to the extent they agree that there would be damaging consequences  The evaluation is clearly set in the context
<b>2</b>	<b>2 marks</b> Good application  The data is used effectively to support arguments on possible damaging consequences	<b>2 marks</b> Good analysis  Developed lines of analysis explaining possible damaging consequences	<b>2 marks</b> Good evaluation  A reasoned judgement whether they agree that there would be damaging consequences  Counter argument(s) are present and developed
<b>1</b>	<b>1 mark</b> Limited application  Learner makes limited reference to the data  Data is used, but its use is underdeveloped, taking the form of occasional references rather than forming strong supporting evidence	<b>1 mark</b> Limited analysis  Limited development of possible damaging consequences  There is a chain of reasoning, but its use of economic theory is underdeveloped; explanations are superficial	<b>1 mark</b> Limited evaluation  Counterpoints are present, but none of them are developed.  Judgement (s) that is/are unsupported will be in this band or a supported one-sided judgment
<b>0</b>	<b>0 marks</b> No reference is made to the context	<b>0 marks</b> No valid analysis	<b>0 marks</b> No valid evaluation

**Indicative content:****AO2**

Use of the table to support the evidence from the case suggesting people earning £50,000 in Scotland will pay £1,500 more income tax than elsewhere in the UK. There appear to be a large number of professions that will be worse off if the tax break is not passed on.

The impact of the lack of tax break becomes more significant to those with higher income, traditionally the higher skilled labour such as doctors, chief executives and air traffic controllers. These are members of society that offer a great deal of value for the economy.

45% of taxpayers will pay more tax than elsewhere in the UK (as 55% will not according to Scottish estimates).

By not passing on the tax break the Scottish government could be gaining £6m less from income tax revenues, important for their government funding.

Not passing on the tax break is part of the Scottish Government's desire to have a fairer economy.

**AO3**

possible damaging consequences of not passing on the tax break include:

**Harm to productivity:** Businesses finding it harder to attract highly skilled staff from other areas of the UK to locate in Scotland or stop highly skilled staff from leaving Scotland. This can harm the productivity of the Scottish economy and less growth in the productive potential.

**Impact on public services and governmental finances:** Due to a lack of supply of labour, wages for skilled staff such as doctors and nurses may rise leading to higher costs of running public services and greater funding difficulties for the NHS in Scotland, and allocation of funds for the Scottish government.

**Lower investment:** Due to a lack of supply of labour, wages for skilled staff may rise. This may lead to lower profits for businesses due to higher costs and potentially hit investment levels within the economy.

**Increased wages:** Could lead to higher wage inflation and higher inflation rates in Scotland than the rest of the UK.

**A lower standard of living for households than otherwise:** A tax break passed on would lead to higher incomes for households, allowing them to purchase more luxury goods, increasing their standard of living. So by not passing on the tax break the standard of living will be worsened.

**Worsening Scottish governmental finances:** Lower tax revenues than could have been gained otherwise as less high earners decide to live in Scotland. This tax revenue could have been used to finance public services and so the economy will miss out on their associated benefits.

**AO4**

Potential high skilled labour may still decide to live in Scotland as there are benefits such as free university tuition and personal care that other parts of the UK do not offer, minimising the impact of not passing on the tax break.

55% of tax payers will be better off leading to a small amount of extra consumption/standard of living in comparison to the rest of the UK. Although only by a very small amount,

It could be beneficial for income inequality and support the Scottish wish for a fairer society.

There are already difficulties in staffing of public services such as healthcare and education and making Scotland less attractive to reside in could make the problem worse.

It may depend on timescale – in the short run it is quite unlikely that employees will make a move away from friends and family in order to gain lower taxes. However, in the long run if future tax breaks are not also adopted by the Scottish government then the gap between disposable incomes between Scotland and the UK may increase further encouraging labour to move.

Whether lower investment and inflation occur may depend on other factors.

Q6 (a)	Sugar prices fell by 18% between November 2018 and January 2019. Calculate the change in the short run supply of sugar.	Total 3
	<p><b>AO1: 1 mark</b></p> <p>Award 1 mark for correct formula/clear understanding for Price Elasticity of Supply (may be implicit from a correct calculation)</p> <p><b>AO2: 2 marks</b></p> <p>Award 2 marks for correct calculation of the change in short run supply</p> <p>Award 1 mark for use of the correct data but with an incorrect outcome for example the outcome being expressed as a +ve % change.</p> <p>or correct calculation using incorrect data e.g. the long run PES</p> <p><b>Indicative content:</b></p> <p>Price elasticity of supply = % change in quantity supplied / % change in price</p> <p>Short run PES co-efficient = 0.14</p> <p>% change in price = 18%.</p> <p><math>18 \times 0.14 = 2.52\%</math> change in supply</p> <p>It is a drop in price so = -2.52% change in supply</p> <p>0 marks for a % change change/original x 100 calculation.</p>	

<b>Q6 (b) Explain possible reasons for the differences between the short run and long run price elasticities of supply for sugar and copper. [6]</b>			
<b>Band</b>	<b>AO1</b>	<b>AO2</b>	<b>AO3</b>
	<b>2 marks</b>	<b>2 marks</b>	<b>2 marks</b>
	<i>Are reasons identified?</i>	<i>Is the data used effectively?</i>	<i>Are reasons fully explained?</i>
<b>2</b>	<b>2 marks</b> Good understanding  Understanding of two reasons for the differences between short run and long run elasticities of supply	<b>2 marks</b> Good application  Numeric data and non numeric is fully used showing that both were inelastic but then sugar becomes less inelastic (but still inelastic) and copper becomes elastic	<b>2 marks</b> Good analysis  Developed lines of analysis explaining why the reason(s) make supply more responsive to a change in price
<b>1</b>	<b>1 mark</b> Limited understanding  Partial understanding of one reason for the differences between short run and long run elasticities of supply	<b>1 mark</b> Limited application  Use of the numeric or non numeric data to show both were inelastic and became more elastic/elastic	<b>1 mark</b> Limited analysis  There is a chain of reasoning, but its explanation of why the short run and long elasticities differ is underdeveloped, often explaining a general increase in supply/output
<b>0</b>	<b>0 marks</b> No valid understanding	<b>0 marks</b> No valid application	<b>0 marks</b> No valid analysis

### Indicative content:

#### AO1

Spare production capacity: an inability to easily increase output of commodities due to a lack of spare production capacity will make PES inelastic as the producers find it hard to respond to a change in price.

Stocks of finished products and components: If there is a lack of stocks of finished products or components then it will be difficult for the commodity producers to release output to respond to a change in price.

The ease and cost of factor substitution/mobility: If capital and labour are hard to switch between the production of different commodities then it will be harder for the producers to respond to a change in price.

Time period and production speed: In the short it is harder for businesses to adjust production levels leading to inelastic pes, in the long run a producer may be able to adjust its production levels.

**AO2**

Pes: is inelastic when Pes is less than 1 and elastic when greater than 1.

Pes of sugar is strongly inelastic in the short run at 0.14 and become less inelastic but still inelastic (but weaker) in the long run at 0.71.

Sugarcane is from an agricultural good.

Pes of copper is moderately inelastic at 0.453 in the short run but becomes elastic in the long run at 1.67

Copper is mined, then concentrated and then processed.

**AO3**

Pes of sugar is inelastic in short run as production output is fixed and the time taken to grow sugarcane and sugar beet is long (as it is an agricultural product). Lack of production capacity, due to the large demand for sugar there is likely to be limited spare capacity in producers. This becomes less inelastic in long run as producers can try to increase output to respond more effectively to an increase in price.

But sugar is still inelastic in long run possibly as it requires large amounts of land to be allocated towards its production and this is hard to source in areas with favourable climates.

Even in long run, the time taken to grow new sugar crops makes it harder to respond to price changes. Once planted and partly grown then if prices were to fall then producers are likely to continue to farm the crop instead of losing income.

It is also hard to hold stock of sugar as it is bulky.

It is relatively hard to switch production from one agriculture product to sugar due to production time.

Pes of copper is inelastic in short run as output in terms of mines is fixed but in the long run if prices were to rise, then possibly new sources of copper could be found for extraction. If prices were to fall then the producers could decide to temporarily shut mines.

There is likely to be small stockpiles of copper in the short run due to cost of storage and possibility of spoiling.

In long run more factors of production can be switched into either extraction of copper or the processing of copper instead of other less profitable commodities.

In the long run processing can be switched from other metals to copper to increase output.

Higher value added might be more attractive to increase supply of if prices increase.

In the long run therefore producers of copper are able to increase output at a greater rate and be more responsive to a change in price, enabling supply to increase at a more than proportional rate than the change in price.