GCE AS MARKING SCHEME

SUMMER 2018

AS (NEW)
ECONOMICS - UNIT 2
252OU20-1

INTRODUCTION

This marking scheme was used by WJEC for the 2018 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 learner 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.

GCE ECONOMICS

SUMMER 2018 MARK SCHEME

Q.1 (a)	**Using mathematical examples, explain why "the flat 5p charge will hit the poorest hardest as a percentage of their weekly income" (lines 34-35). [4]**
	AO1 - 2 marks **2 marks** The mathematical examples are correct **1 mark** The mathematical example is partially correct or it does NOT show a comparison between a high-income earner and a low-income earner **AO3 – 2 marks** **2 marks** Explanation that sales of bags do not change with income (YED inelastic) meaning that everybody spends approx. the same amount of money on bags i.e. a comparison **1 mark** a comparison. **0 marks** No valid explanation

Indicative content:

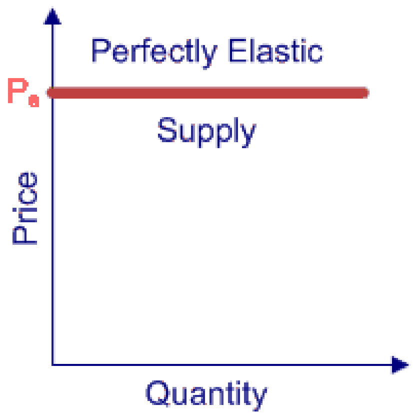
For example:

One person earning £400 per week may spend £4 on bags per week (1% of his/her income). Another person earning £4000 per week may spend £5 on bags per week (0.125% of his/her income).

Q. 1 (b)	**With reference to lines 5-7, draw a supply curve for the production of plastic bags and explain the curve that you have drawn. [4]**
AO2 *Is the diagram correct?*	**AO3** *Does the answer explain the (perfectly) elastic supply curve in AO2 with good economic analysis?*
2 marks Correct diagram	**2 marks** Good contextual analysis of why the production of plastic bags may lead to a horizontal supply curve.
1 mark Partially correct diagram	**1 mark** Limited analysis. Understanding of (almost) perfectly elastic PES.
0 mark No diagram Incorrect diagram	**0 marks** No analysis Unsatisfactory analysis

Indicative content:

AO2 (Diagram)



or shallow gradient

AO3 (Explanation)

Possible explanations of "perfectly elastic":
- Marginal Cost of production are negligible
- An increase in demand can be met without any change in price
- Perfectly elastic supply can occur when sellers have the choice among a large number of perfect substitutes in the production.

For example: The production of plastic bags is so heavily mechanised/automated that any increase in demand can be met without any change in price.

The marginal cost of one additional plastic bag will (near enough) be equal to zero given the nature of the industrial production of plastic bags.

Q.1 (c)	**Consider whether the price elasticity of demand for plastic bags is likely to be elastic or inelastic. [6]**		
Band	**AO1**	**AO3**	**AO4**
	2 marks	**2 marks**	**2 marks**
	Does the answer demonstrate good understanding?	*Is economic theory applied to explain why PED might be elastic?*	*Is economic theory applied to explain why PED might be inelastic?*
2	**2 marks** Good understanding of PED inelastic OR PED elastic	**2 marks** Good level of analysis	**2 marks** Good evaluation
1	**1 mark** Understanding of PED only One of the above only	**1 mark** Limited level of analysis	**1 mark** Limited evaluation
0	**0 marks** No understanding	**0 marks** No analysis	**0 marks** No evaluation

Indicative content:

AO1 (Understanding)

PED is the responsiveness of quantity to price. Elastic would mean that the percentage change in quantity demanded is greater than the percentage change in price. PED inelastic would mean that the percentage change in quantity demanded is less than the percentage change in price.

AO4 (PED is inelastic)

5p plastic bags are a very low % of people's income and therefore if they rise, people are likely to buy them anyway.

The substitute goods (e.g. cotton bags) are much more expensive in comparison and therefore people are unwilling to change their consumption habits.

The alternative of not using any bags is not attractive and therefore most people would happily pay 5p for the convenience of a bag,

Mathematical approach. As price increases from 0p to 5p (a very very large % increase), quantity demanded (as a %) has fallen dramatically but it is still below the % price change.

AO3 (PED is elastic)

There have been some dramatic reductions in quantity demanded as a result of a small nominal price change (only 5p) – although "technically" this is elastic, most people would accept that this is an exceptionally large % decrease for a relatively small change in price.

There are a large number of substitute goods and therefore people will see the value in buying a recyclable cotton bag even if the plastic bag price is still incredibly low.

Good use of data analysis

One-sided answer: MAX 4.

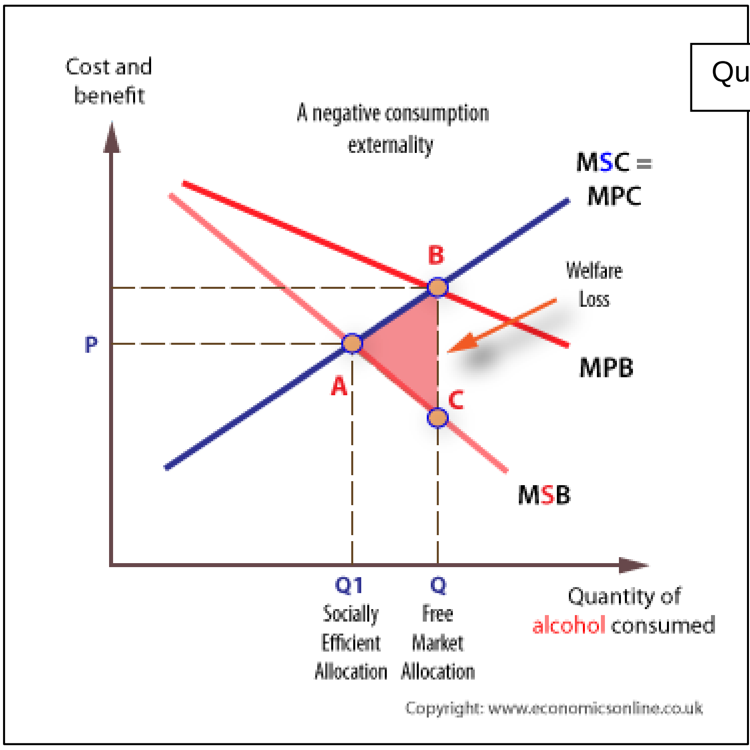
Q.1 (d)	**Using a welfare loss diagram and with reference to the data, explain how the consumption of plastic bags can lead to market failure. [8]**			
Band	**AO1**	**AO1**	**AO2**	**AO3**
	1 mark	**2 marks**	**2 marks**	**3 marks**
	Is the concept of market failure understood?	*Is the diagram drawn correctly?*	*Is the answer in the context of plastic bags?*	*Does the answer use economic theory well to explain why negative externalities leads to market failure?*
2		**2 marks** Correct diagram	**2 marks** Good use of the data	**3 marks** Good analysis which uses economic theory well to explain why negative externalities leads to market failure
1	**1 mark** Correct understanding	**1 mark** Partially correct diagram	**1 mark** Limited use of the data	**1-2 marks** Limited analysis which uses economic theory to a limited extent to explain why negative externalities leads to market failure
0	**0 marks** No understanding	**0 marks** No diagram Incorrect diagram (see notes below)	**0 marks** No application	**0 marks** No analysis

Indicative content:

AO1 (Understanding)

Market failure is a misallocation of resources in a market. Or similar.

AO1 (Diagram)



Quantity of plastic bags

A negative externality in production diagram should only receive 1 mark.

Look out for:
Mis-labelling of MPB and MSB
Incorrect welfare loss triangle
Labelling of axis

AO2
Almost any use of data is permissible here in order to exemplify the idea of negative externalities

AO3
Negative externalities should be defined such as “a negative spill-over effect of a private transaction on the third party”. Negative externalities are subtracted from the private marginal benefits of consuming producing plastic bags and, as a result, marginal social benefits are lower than marginal private benefits. Answer may distinguish between MPB and MSB and that MSB equals MPB-EC.

Answer must link back to the idea of a misallocation of resources or inefficient allocation of resources i.e. that due to the externalities, the free market allocation of resources is greater than the socially optimum level and community surplus is not maximised.

Q.1(e)	**Using the data, discuss the extent to which the 5p charge on plastic bags should be considered an example of government failure. [10]**			
Band	**AO1**	**AO2**	**AO3**	**AO4**
	2 marks	**2 marks**	**2 marks**	**4 marks**
	Does the answer show good understanding of the concept of government failure?	*Has the candidate used qualitative and/or quantitative evidence to justify his/her points?*	*Does the answer explain fully why the 5p should be considered a government failure?*	*Does the answer evaluative the points already made and evaluate them with economic theory?*
2	**2 marks** Good understanding	**2 marks** Clear reference to the data The points are heavily contextualised within the framework of plastic bags	**2 marks** A good analysis that explains why the 5p charge should be considered a government failure	**3-4 marks** A good evaluation that is fully developed and makes a strong economic explanation as to why it should NOT be considered government failure
1	**1 mark** Limited understanding	**1 mark** Limited use of the data The data is only used specifically to build an argument on one occasion	**1 mark** Limited analysis	**1-2 marks** Limited evaluation
0	**0 marks** No understanding demonstrated	**0 mark** No application	**0 marks** No analysis	**0 marks** No evaluation

Indicative content

AO1 (Understanding)

Government failure is the idea that Governments may intervene in a market in order to solve a market failure but end up making the market failure worse/fail to improve the situation/ create a market failure somewhere else.

AO2 (Application)

Almost any use of data is permissible here in order to exemplify the idea of government failure.

AO3 (Analysis)

The Government has intervened to try and reduce the number of plastic bags but, in terms of their general environmental impact, plastic bags might actually be the best option for the environment. Paper bags and cotton bags have their own downsides too (examples given in the text) and actually we risk more negative externalities from promoting those materials than we would have received from the use of plastic bags.

Plastic bags actually make up very little of the litter problem. The plastic 5p charge may be a PR stunt in the sense that it will gain a lot of publicity but, in actuality, it will make almost no difference whatsoever to the level of litter around the country and in the seas.

Regressive tax -

AO4 (Evaluation)

That said, a tax on plastic bags reduces their consumption and, as shown on a negative externalities diagram, we need to reduce the use of plastic bags back down to the socially optimum level. Looking at the statistics, the use of plastic bags has seemed to work very well indeed (lots of decreases in % being used) and therefore it has worked at solving the market failure and it is not a government failure.

The money raised from the sale of plastic bags is going towards good causes – no doubt trying to resolve some of the problems that may arise from plastic bag consumption. It may be assumed that the Government collects the tax revenue.

It's probably too early to tell. The charge was introduced recently and we need time to really understand whether it is has had a significant impact on the environment or not.

Q.1 (f)	**To what extent are tradeable pollution permits effective at reducing the environmental damage within a country? [8]**		
Band	**AO1**	**AO3**	**AO4**
	2 marks	**2 marks**	**4 marks**
	Does the answer show a good understanding of tradeable pollution permits?	*Does the answer explain how pollution permits can be effective at reducing environmental damage?*	*Does the answer evaluate the points already made and evaluate them with economic theory?*
2	**2 marks** Good understanding	**2 marks** A good analysis that fully develops lines of argument to explain why pollution permits can reduce environmental damage?	**3-4 marks** The candidate successfully evaluates or provides good counter-arguments to those points made in AO3
1	**1 mark** Limited understanding	**1 mark** Limited analysis	**1-2 marks** Limited evaluation
0	**0 marks** No understanding	**0 marks** No analysis	**0 marks** No evaluation

Indicative content

AO1 (Knowledge)

Pollution Permits involve giving firms a legal right to pollute a certain amount e.g. 100 units of Carbon Dioxide per year. If the firm produces less pollution it can sell its pollution permits to other firms. However if it produces more pollution it has to buy permits off other firms.

AO3 (Explanation)

- Because of the marketization of permits (the idea that firms can sell to each other) IF firms pollute a lot there will be low supply and high demand therefore the price will be high for permits. Therefore there is an incentive for firms to cut pollution. Firms will be incentivized to go 'green' because then they make money by selling permits.

- Similarly, these pollution permits can be used on a global scale. Each country could be given a permit to produce carbon dioxide pollution which causes global warming. If it pollutes less than its quota then it can sell it to other countries. Therefore there is an incentive to pollute less.

AO4 (Evaluation)

Regarding permits: In practice, it can be difficult to implement. It is difficult to know how many permits to give out. If the government is too generous, there will be little pollution reduction. If the government is too strict in implementing permits, firms may complain it adversely affects output because they cannot get enough permits. This could harm economic prosperity.

Difficult to measure pollution levels. There is potential for hiding pollution levels.

Administration costs of implementing the scheme.

Countries who pollute more than their quotas can simply buy permits off other people. Therefore rich developed countries have been buying permits of less developed countries. This has not reduced pollution.

Permit schemes might lead to a situation where lots of firms in the same region have permits and therefore you actually have a greater concentration of pollution in one particular geographical area.

Carbon taxes increase costs for firms which may lead to a fall in business profit, which may in turn lead to business closures (affecting both growth and unemployment). Firms actually may not close, but they may lay-off workers in order to compensate for the increase in costs elsewhere.

Increased costs (through any of taxes mentioned above) may lead to firms choosing to invest in other countries where the regulations are more favourable. If lots of businesses choose to move then this will reduce growth in the country and lead to greater unemployment.

Q.2 (a)	**Using an AD/AS diagram, explain why inflation in Brazil is so high.**		**[6]**
Band	**AO1**	**AO2**	**AO3**
	2 marks	**2 marks**	**2 marks**
	Is the diagram correct?	*Is the data applied to the case of Brazil?*	*Clear explanation as to why cost-push inflation has been caused in Brazil*
2	**2 marks** Correct diagram	**2 marks** Have identified two factors	**2 marks** Good analysis which develops the points from AO2 and relates them to cost-push inflation. 2 factors.
1	**1 mark** Partially correct diagram	**1 mark** Limited application Have identified one factor	**1 mark** Limited analysis. 1 factor.
0	**0 marks** Incorrect or unsatisfactory diagram	**0 marks** No application. Just general points	**0 marks** No analysis.

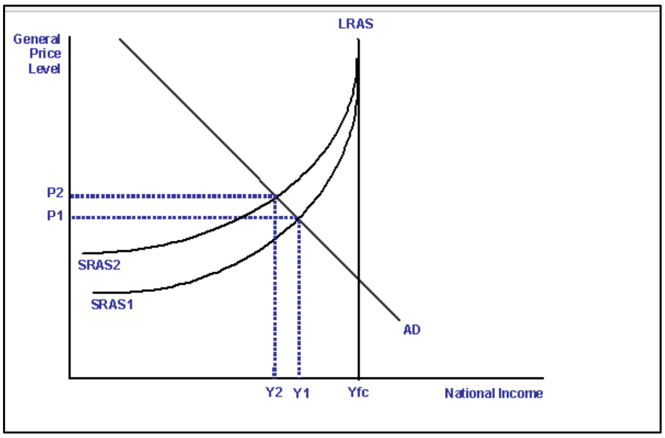
Indicative content:

AO2 (Application)

Suitable factors to be identified from the text include: Energy prices, Exchange Rate depreciation, Petrol tax increase.

The explanation (below) should then be developed within the context of Brazil

AO2 (Diagram)



AO3 (Explanation)

Energy prices. Energy prices have increased due to a water shortage. This has created scarcity in the hydro-electric market and driven up energy prices in general. As a result, of energy prices increasing, the costs of production to firms has increased which means they have to pass on those costs to customers and prices begin to rise. As a result, SRAS shifts upwards.

Exchange Rate decreases. This causes the price of imports to increase and therefore the costs of production for firms. As a result, of energy prices increasing, the costs of production to firms has increased which means they have to pass on those costs to customers and prices begin to rise. As a result, SRAS shifts upwards.

Petrol tax increase mentioned in the article could also lead to upwards pressure on the price of resources and thus an upward shift in the SRAS curve.

MAX 3 for demand-pull explanation. 1 for diagram. 1 for explanation and 1 for link to Brazil.

Q	Mark scheme	Total
2 (b) (i)	**Using the data in lines 26 to 28, calculate:** **(i) Brazil's GDP in 2015.** **AO2: 1 mark** Award **1** mark for correct answer. $230.6bn was 13.1% of the country's total GDP. Therefore GDP is 1760bn.	**2**
2 (b) (ii)	**(ii) the value of Brazilian exports bought by China and the USA.** **AO2: 1 mark** Award **1** mark for correct answer. USA and China buy 2/3s of $230.6bn exports. Therefore, they buy $153.7bn (accept $153.7bn or $154bn or 154.5).	

Must be in billions. Currency should be disregarded.

Q.2 (c)	**To what extent can the use of supply-side policies increase the level of investment in Brazil? [10]**			
Band	**AO1**	**AO2**	**AO3**	**AO4**
	2 marks	**2 marks**	**2 marks**	**4 marks**
	Does the answer demonstrate understanding of supply side policies?	*Is the answer in context?*	*Does the answer explain why supply side policies can help Brazil attract more investment?*	*Does the answer evaluate the effectiveness of those supply side policies in attracting investment or offer alternatives?*
2	**2 marks** Good understanding	**2 marks** Good application	**2 marks** A good analysis that fully develops lines of argument to explain why SSPs can attract more investment to Brazil	**3-4 marks** Good evaluation. The candidate evaluates or provides good counter-arguments to those points made in AO3 i.e. why the policies may not be effective in attracting investment OR Offers alternatives to SSPs
1	**1 mark** Limited understanding	**1 mark** Limited application	**1 mark** Limited analysis	**1-2 marks** Limited evaluation
0	**0 marks** No understanding demonstrated	**0 marks** No application	**0 marks** No analysis	**0 marks** No evaluation

Indicative content

AO3 (Evaluation)

Brazil has complicated tax rules and masses of regulations. SSPs would include stripping away those problems by deregulation of markets and getting rid of bureaucratic nonsense. In this sense, investors now know that they are not wasting time by investing in Brazil and will happily invest there.

Employment laws are too strong. Brazil needs to enact some sort of legislation which makes hiring and firing easier. This will attract investment.

Infrastructure projects will help to lower the costs of production for exporters (who are doing badly at the moment). This will encourage those firms to reinvest as they can see the potential returns.

AO4 (Evaluation)

It's all relative. At the moment, Chile is the first port of call for foreign investors. Whatever Brazil does, it has to make sure that it is at least matching Chile's offer or beating. Improvement on its own won't help matters, it has to be better than Chile
No matter what the supply side looks like, investors want a return on their money. This means that the demand side has to be working effectively which – at the moment – it is not. Brazil might be better off getting the demand side working before it spends time thinking about the supply side.

To a large extent, future investment will depend on what Mr Tombini, the Governor, does with interest rates. If he decides to increase them then, again, it doesn't matter what improvements are made to the supply-side, investment won't increase.
Infrastructure projects are useful but expensive and time-consuming. The government currently has a large amount of debt and may have other more deserving needs for its money (e.g. debt repayments) and, similarly, if we want to increase investment now, a 10 year infrastructure project is probably not the answer.

SSPs are, generically, expensive although tax reform and employment law reform – in and of themselves – are not really. However, for some examples the cost can be mentioned as a potential downside but, again, it must be linked to Brazil's particular predicament which is that the Government is already in a huge amount of debt and perhaps the amount of investment won't be enough to warrant that sort of spending.

Q.2 (d)	**Discuss whether the policies of increased taxes on petrol and lowering state pensions are likely to be beneficial for the Brazilian economy. [10]**			
Band	**AO1**	**AO2**	**AO3**	**AO4**
	2 marks	**2 marks**	**2 marks**	**4 marks**
	Does the answer show good understanding of the positive impact of BOTH policies on a macro-objective?	*Is the answer in context?*	*Does the answer develop the points made in AO1 to explain why the policy causes the effect?*	*Does the answer evaluative the effectiveness of those policies on reducing the Brazilian economy?*
2	**2 marks** Good understanding of both policies and each linked to macro-objectives	**2 marks** Answer is well-contextualised, making full and effective use of the data on both sides of the debate	**1-2 marks** A good analysis that fully develops lines of argument to explain why each policy might affect a macro-objective in a positive way	**3-4 marks** The candidate successfully evaluates or provides good counter-arguments to those points made in AO3 i.e. why the policies may not be positive or why they may not be as effective as first made out
1	**1 mark** Only one of the above OR limited understanding of both	**1 mark** Limited use of the data. Answer makes some use of the data	**1-2 marks** Limited analysis	**1-2 marks** Limited evaluation
0	**0 marks** No understanding	**0 marks** No application	**0 marks** No analysis	**0 marks** No evaluation

Indicative content:

AO1 and AO3

Increase in petrol taxes.

Petrol is an income inelastic good and, therefore, an increase in the tax should increase tax revenue for the Government. Diagram may well be used here.

Therefore, Government revenue is likely to increase which can be used for increased Government spending. Or, it may be used to pay down the public debt and reduce costs of borrowing.

Lowering state pensions

State pensions are a form of transfer payments from the Government to the population and are, usually, one of the biggest sectors of G for most countries. By reducing those state pensions, G decreases but also people will be incentivized to work longer and the Government can collect even more income tax revenue from them.

AO4

Increase in petrol taxes.

Brazil has a chronic infrastructure problem which means that it is highly likely that people do not travel by road much – either going by bike or on foot (short journeys) or railways (for longer). Petrol taxes therefore do not affect them very much and therefore Government may not see much extra revenue.

The debt problem is so bad that the increase in tax revenue won't be make a significant difference.

Petrol taxes are regressive and it may make the inequality problem in Brazil worse.

Increase petrol taxes will add to the high level of inflation in Brazil

Laffer Curve argument. As tax rates become too high, tax revenues may decrease. In this case, people may start seeking alternative forms of transport and therefore revenue received by the Government may fall.

Brazil has a large number of vehicles on the road which do not use petrol (biogas is very popular in Brazil) and therefore the amount of tax revenue received by the Government may not increase as much as expected.

Brazil has a thriving black market for fuel (e.g. in N Brazil, many Brazilians cross the border into Venezuala on a weekly basis to fill up their cars with cheaper petrol). Therefore, the tax revenue received may not be as large as thought.

"it depends to the size of the increase" should not be credited unless it is well developed – preferably with economic concepts such as PED.

Lowering state pensions

Lower state pensions may reduce standards of living to such an extent that people are in greater need of healthcare such that G increases in other areas and counteracts the savings made in welfare payments.

Lowering state pensions will exacerbate the inequality issues in Brazil (high income households have other forms of income)

Lowering state pensions will reduce the level of consumption in the economy as incomes fall.

By lowering state pensions, people may seek out other forms of social protection so whilst pensions may fall, housing benefits etc … may increase.

AO2
Almost any use of data is permissible here so long as the points in AO3 and AO4 are heavily contextualised within the framework of the Brazilian data above and numerous evidence is used to support the answer.

Q.2 (e)	Discuss whether Mr Alexandre Tombini should "keep interest rates high". (line 40) [12]			
Band	**AO1**	**AO2**	**AO3**	**AO4**
	2 marks	**2 marks**	**2 marks**	**6 marks**
	Does the answer show a good understanding of interest rates	*Has the candidate applied the data well?*	*Does the answer explain fully why the Governor should increase interest rates/keep interest rates high?*	*Does the answer evaluate the points already made and justify those evaluative with economic theory?*
3				**5-6 marks** An excellent evaluation Makes an effective judgement to answer the question overall.
2	**2 marks** Good understanding of interest rates	**2 marks** Clear reference to the data. The points are heavily contextualised within the framework of the Brazilian data above and numerous evidence is used to support the answer.	**2 marks** A good analysis that makes a strong economic explanation as to why the Governor should choose to keep rates high	**3-4 marks** A good evaluation
1	**1 mark** Limited understanding	**1 mark** Limited use of the data	**1 mark** Limited analysis	**1-2 marks** Limited evaluation
0	**0 marks** No understanding	**0 marks** No data used.	**0 marks** No analysis offered.	**0 marks** No evaluation offered.

Indicative content:

AO3 (Analysis)

Increasing Base Rate will strengthen the Real as more foreigners will want to save their money in Brazilian currency. This has the effect of making Brazilian imports cheaper in value – which will have a deflationary effect on the economy.

(EVAL: the flip-side to this is, of course, that exports are more expensive and Brazil is already struggling with its export sector. This is a risk that the Central Bank cannot afford to take).

Brazil should NOT decrease the Base Rate. Decreasing Base Rate will only serve to increase demand-side pressure on the economy. Brazil is already suffering from 7% inflation and the last thing it needs is more inflationary pressure

(EVAL: That said, most of that inflationary pressure is coming from cost-push factors. Therefore, arguably, there is capacity in the economy which can satisfy an increase in demand without any additional inflationary pressure).

AO4 (Evaluation)

Brazil is facing a recession. By lowering base rate, the incentive to spend is greater because the reward for saving is lower. Since we know that C is 50% of GDP, we should expect to see a significant change in AD and large economic growth.

Decreasing Base Rate will also reduce the cost of loans. We know that Brazil has trouble attracting investment – so lower interest rates should, in theory, incentivize investors to start up a new business and build new factories despite the issues with regulation.

Decreasing base rates will ease the debt burden on households who, at the moment, are drowning in debt worries. We know that debt repayments eat up 21% of the average Brazilian's income – so to ease that would certainly lead to an increase in C and an increase in AD.

Other:

Another option would be to do nothing. Given that there are pitfalls everywhere you look, Mr Tombini might decide that it's better to sit this one out for now and observe the economy for a bit longer before nailing his colours to the mast – so to speak.

AO2
Almost any use of data is permissible here so long as the points in AO3 and AO4 are heavily contextualised within the framework of the Brazilian data above and numerous evidence is used to support the answer.