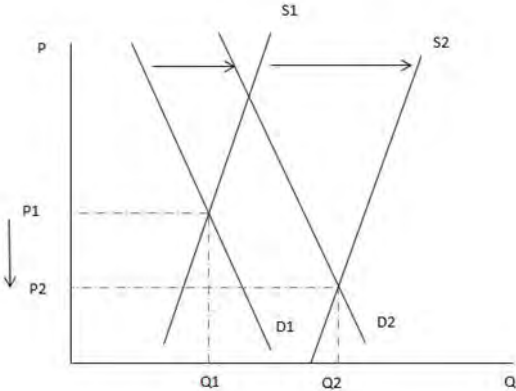**COMPONENT 1: Introduction to Economic Principles**

MARK 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 economic concepts, theory, issues and arguments which might be included in learners' answers.

Q.	Mark scheme	Total
1 (a)	**With reference to the data and using supply and demand diagrams explain why:** **The prices of 'in the ground' commodities such as iron ore have increased significantly since 1950.** **AO1: 2 marks** 1a Award **2** marks for: - A diagram showing demand shifting to the right with an unchanged supply curve. All labels are correct. - A diagram showing demand shifting to the right with supply shifting right to a lower extent. All labels are correct. - A diagram showing demand shifting to the right and supply to the left, if the supply shift is appropriately explained. All labels correct. 	**4**

Award **1** mark for:

Diagrams that have key features missing, such as failure to label significant features like the new price or new demand curve.

Diagrams which fail to shift demand to the right, but instead show supply shifting to the left.

Award **0** marks for:

Diagrams which fail to shift demand to the right, but instead show supply shifting to the left and have key features missing.

Diagrams which fail to mark in any prices or outputs.

AO2: 2 marks   1a

Award **2** marks for:

Answers which explain demand rising in terms of rising population or perhaps rising industrialisation and show an understanding that supply is difficult to increase or argue that some resources are becoming depleted and therefore supply is falling.

Award **1** mark for:
Answers which do only one of these two things.

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Q.	Mark scheme	Total
1 (b)	**With reference to the data and using supply and demand diagrams explain why:** **The prices of grains such as rice, corn and wheat are lower than they were in 1950.** **AO1: 2 marks 1a** Award **2** marks for: A diagram showing demand shifting to the right with a supply curve moving to the right by more. All labels are correct. Award **1** mark for: Diagrams that have key features missing, such as failure to label significant features like the new price or new demand curve. Diagrams which only shift supply to the right. Award **0** marks for: Diagrams which fail to shift demand to the right, but instead show supply shifting to the left and have key features missing. Diagrams which fail to mark in any prices or outputs. **AO2: 2 marks 1a** Award **2** marks for: Answers which refer well to the data explaining that supply has risen more than demand because supply can be increased fairly easily and whilst population has grown 2.8 times since 1950, supply has risen by 3.6 times. Answers which explain that supply rises more than demand, fail to use the proportions, but instead make good use of the data in the chart. Award **1** mark for: Answers which use the data to explain the increase in supply fail to cover demand. Answers which show an understanding that supply has risen more than demand, but don't use any of the figures from the passage or chart. Award **0** marks for: Answers which fail to explain anything. Answers which have no bearing on the data.	**4**

Q.	Mark scheme	Total
2	**Using the diagram, calculate:**	**4**
	(i) The producers' revenue before the guaranteed price was introduced. [1]	
	Award **1** mark for 80m X $15 = $1200 (or $1.2 billion) **AO2: 1 mark 1a**	
	(ii) The cost to the government of buying excess supply at the guaranteed price. [1]	
	Award **1** mark for 50m X £20 = $1000 (or $1.0 billion) **AO2: 1 mark 1a**	
	(iii) The consumer surplus after the guaranteed minimum price was introduced. [1]	
	Award **1** mark (40m X $5)/2 = $100m **AO2: 1 mark 1a**	
	(iv) Total income of producers after the guaranteed price was introduced. [1]	
	Award **1** mark (90m X $20 = $1800m (or $1.8 billion) **AO2: 1 mark 1a**	

Q.	Mark scheme	Total

3	**Suppose that a firm knows that Price elasticity of demand for its product is -1.5. Currently the firm sells 500 units/week at a price of £5/unit.**
	
	If the firm was to cut the price to £4/unit, calculate:
	
	(a) The probable impact on the firm's sales.
	
	AO1: 1 mark 1b
	
	Award **1** mark for showing an understanding of PED:
	        Giving the formula, or
	        Using the formula correctly, or
	        Showing an understanding that PED shows the relative impact on demand coming from a change in price.
	
	AO2: 2 marks 1a
	
	Award **2** marks for correct answer.
	
	(Price has fallen from £5 to £4: This is a 20% fall in price. PED is -1.5, therefore demand will rise by 30%). Therefore demand rises to 650 units/week.
	
	Award **1** mark for a partially correct solution:
	
	Learner works out the percentage change in price correctly, but applies PED incorrectly.
	
	Learner calculates the percentage change in price incorrectly, but correctly applies the PED figure.
	
	(b) The firm's new level of revenue if those sales occur.
	
	AO2: 1 mark 1b
	
	Award **1** mark for correct answer.
	
	(Revenue is PXQ. Price has fallen to £4, demand has risen to 650 units). Therefore new revenue is £2600.
		4

Q.4	With reference to the data, discuss the extent to which Wikipedia might be considered to be a public good. [6]		
Band	AO1 1a	AO2 (1a)	AO4 1ab
	2 marks	2 marks	2 marks
	What are the characteristics of a public good?	Why might Wikipedia show such characteristics?	Why might Wikipedia not in fact be a public good?
2	**2 marks** Learner understands that public goods are non-excludable and non-diminishable (rivalrous) and shows a clear understanding of each.	**2 marks** Learner clearly applies both characteristics to Wikipedia, showing why Wikipedia might be: Non-diminishable: Additional users do not impinge on the usage of existing users – we can all see the same entry. Non-excludable: Information services like these are available to anyone with an internet connection.	**2 marks** Either: Learner evaluates both characteristics in context: Non-excludable: just because Wikipedia is currently free to use doesn't mean that access couldn't at some point in the future be restricted. It would in principle be possible to put up a pay-wall. Non-diminishable; In principle too many users could crash the server. Increased usage might result in increased vandalism of pages because they are open to all to edit. Or: Learner evaluates 1 characteristic very thoroughly.
1	**1 mark** Learner states that public goods are non-excludable and non-diminishable (rivalrous) but does not show a clear understanding of both.	**1 mark** Learner only applies 1 characteristic successfully in the context of Wikipedia or makes an attempt at both but is not developed.	**1 mark** Learner questions 1 of the characteristics in context, but the evaluation isn't fully detailed or 2 characteristics are discussed, but only superficially.
0	**0 marks** Response not credit worthy or not attempted.	**0 marks** Context of Wikipedia is not used.	**0 marks** Response not credit worthy or not attempted.

Indicative content

Public goods have 2 key characteristics:

      (i)   Non-excludability: Non-payers cannot be prevented from using the service
      (ii)   Non-diminishability/rivalry: An additional user does not reduce the total amount of the good or service available.

In the case of Wikipedia:

Excludability:

Information services like these are available to anyone with an internet connection. Therefore non-excludable
But: Just because Wikipedia is currently free to use doesn't mean that access couldn't at some point in the future be restricted. It would in principle be possible to put up a pay-wall.

Diminishability/Rivalry:

Additional users do not impinge on the usage of existing users – we can all see the same entry. Therefore non-diminishable.
But: In principle too many users could crash the server. Increased usage might result in increased vandalism of pages because they are open to all to edit.

Q.5	With reference to the data, discuss whether introducing a minimum price of 45p per unit is a good way of trying to correct market failure in the alcohol industry. **[8]**			
Band	AO1 1c	AO2 1c	AO3	AO4 1abc
	1 mark	1 mark	2 marks	4 marks
	What is market failure?	What data has been used to support the answer?	Why might a 45p minimum price correct or not correct market failure?	How well judged is the response – to what extent is the policy likely to work?
2	**1 mark** Demonstrates understanding what is meant by market failure in terms of resources being misallocated/welfare loss being created.	**1 mark** Data from the graph or passage has been used in support of arguments. For example: • 860 fewer deaths a year and 29,900 fewer hospital admissions. • Would impact on those who drink most heavily and are on low incomes. • Use of data from bar chart.	**2 marks** Learner makes well-reasoned developments of 1 side of the case making it clear why a minimum price might or might not correct market failure.	**3-4 marks** Learner makes well-reasoned judgements of at least 1 side of the case, showing good application to the context in their judgements. Alternatively they might judge each side to a more limited extent and come to a conclusion that is well applied to the issue. Answers in this band are likely to have an overall conclusion as to how successful a minimum price is likely to be, in the context of the case and referring to market failure.
1			**1 mark** Learner argues 1 side of the case, making some undeveloped points, or perhaps has only 1 point with some development. Superficial development of both sides would also be in this band.	**1-2 marks** Learner has made well-reasoned developments of both sides of the case, but fails to come to an overall conclusion or does not really qualify their arguments.
0	**0 marks** Understanding of market failure not demonstrated.	**0 marks** Data has not been directly used.	**0 marks** Response not credit worthy or not attempted.	**0 marks** Response not credit worthy or not attempted.

Indicative content

Yes:

Alcohol is a demerit good with external costs in consumption. Hence it will be over-consumed in the free market, resulting in a welfare loss and therefore a misallocation of resources. Consumption needs to be restricted to return the equilibrium output to the optimum level, an increase in price will achieve this. **But** it may be difficult to estimate the external costs and hence what the optimal price is resulting in the risk of government failure.

Alcohol consumption results in significant external costs in terms of demand for health services, anti-social behaviour and crime. A minimum price will help to internalise these external costs, reducing alcohol consumption and hence reduce the size of the externality in total. Data: 860 fewer deaths a year and 29,900 fewer hospital admissions. **But** this data is only forecast – in reality drinkers may resort to alternatives such as homebrew or black market products.

A minimum price will help to prevent binge drinking which can be fuelled by heavily discounted alcohol. **But** 45p/unit may not be high enough. Policy is well targeted: Data: a price of 45p per unit of alcohol, would impact those who drink most heavily and are on low incomes, but doesn't really affect moderate drinkers.

No:

Policy has the biggest impact on those who are on low incomes, hence may damage their ability to heat their homes etc.

Income inequalities may be increased as a result of the regressive nature of the price increase – generally spending on alcohol already takes a higher percentage of the income of workers from low income groups.

Policy might not work that well (possible inelastic demand, although the research suggests that this is not true for harmful drinkers).

Policy may simply increase the profits of drinks companies and supermarkets, allowing them to increase spending on advertising instead or other non-price related promotions.

Learner may feel that because the policy does not really impact on moderate drinkers, it may not be that effective.

Risk of creating an unregulated black market with possible health impacts; already rising cases of fake Vodka in the UK.

Q.	Mark scheme	Total
6	**Use the data to calculate annual economic growth in:**	**2**
	(i) **2013 AO2:** **1 mark** **1a**	
	Award **1** mark for (103.2-101.4)/101.4 X 100% = 1.775% (1.7 or 1.78)	
	(ii) **2009 AO2:** **1 mark** **1a**	
	Award **1** mark for (98.4-103.7)/98.4 X 100% = 5.386% (5.4 or 5.39) Working is not required.	

Q.	Mark scheme	Total
7 (a)	**Explain two factors that might have caused consumption to rise in late 2013.** **AO1: 2 marks 1c** Award **1** mark for each factor. Learner shows an understanding of how the factor identified might lead economic agents to increase consumption. **AO2: 2 marks 1c** Award **1** mark for each factor applied in the context of the UK in late 2013. Possible factors: <u>Falling unemployment</u> means more consumers have incomes and may increase the confidence of others. <u>Recovery in the housing market</u> meaning that confidence may be boosted, as house prices start to rise there may be wealth effects and the possibility of equity withdrawal. <u>Sustained low interest rates</u> mean that mortgage payments stay low, create disincentives to save and incentives to borrow. <u>Increases in the personal allowance</u> mean that workers keep a higher proportion of their incomes – disposable income will rise. <u>Rising consumer confidence.</u> <u>Rising GDP</u> itself creates jobs, confidence and may allow wages to begin to rise in real terms. <u>Continued QE</u> helps to keep interest rates low. Factors should be plausible given the context.	4

Q.7b	With reference to the data, discuss whether a sustained rise in UK consumer spending will be beneficial for the economy. [8]		
Band	AO2 1b	AO3	AO4 1abc
	2 marks	2 marks	4 marks
	How well has the data been used?	How well explained are the impacts on the key policy objectives?	How well qualified is the answer – to what extent will rising consumer spending be beneficial?
2	**2 marks** Learner uses the data well to support their points, with at least 2 clearly relevant points identified from the data, or real-world knowledge that is relevant to the situation. Data is developed in context.	**2 marks** Learner makes well-reasoned developments of 1 side of the case making it clear a rise in consumption might or might not be a good thing. It is likely that there will be at least 2 well-developed ideas for this band.	**3-4 marks** Learner makes well-reasoned judgements of at least 1 side of the case, showing good application to the context in their judgements. Alternatively they might judge each side to a more limited extent and come to a conclusion that is well applied to the issue. Answers in this band are likely to have an overall conclusion as to how beneficial a rise in consumption is likely to be in the context of the case.
1	**1 mark** Learner either makes occasional vague reference to the data throughout their answer without being specific, or only uses 1 piece of information well – hence only 1 piece of data has any meaningful development (more than just e.g. 'X').	**1 mark** Learner argues 1 side of the case, making some undeveloped points, or has only 1 point with some development. Superficial development of both sides would also be in this band.	**1-2 marks** Learner makes brief unsupported judgements with limited application to the context. Evaluation may lack balance and unlikely to offer an overall conclusion.
0	**0 marks** Data has not been directly used.	**0 marks** Response not credit worthy or not attempted.	**0 marks** Response not credit worthy or not attempted.

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Indicative content

Consumer spending, which accounts for nearly two-thirds of the UK's economic activity rose by 0.8%, the most since the second quarter of 2010. Unemployment has now fallen by half a million since early 2012.

The ONS figures showed that business investment grew by 1.4% in the July-to-September period, after dropping 2.7% in the previous quarter.

But exports from the UK fell by 2.4% in the third quarter, increasing the trade deficit and while UK economic growth was strong, GDP is still 2.5% below its pre-recession level.

Beneficial:
Rising consumer spending will be important for economic growth – it forms around 2/3rds of GDP – hence rising consumption will help to sustain growth and therefore jobs.
Unemployment is falling, and continued consumption will help to ensure that it continues to do so; GDP is still well below its 2008 level.
AD/AS diagram to illustrate.
Rising consumption will help to increase firms' profits and therefore stimulate investment and therefore potential growth etc; important after the recent fall in investment in Q2.
Rising consumption will lead to improvements in the government's finances as VAT, income tax and corporation tax yields rise and spending on benefits falls.

But:
Rising consumption may suck in imports and we already have a trade deficit; exports fell in the 3rd quarter.
Rising consumption may start to put upward pressure on inflation (might use a diagram to illustrate this).
Rising consumption may lead to rising household debt, which may store up trouble for the long term.
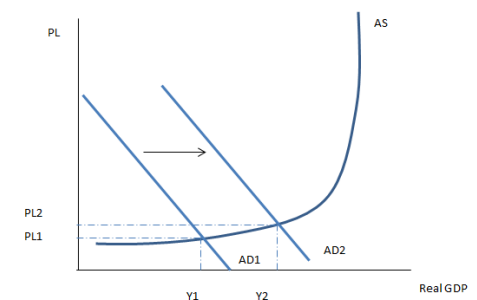Rising consumption may imply greater consumerism, environmental issues and so on.

Depends on:
How fast consumption continues to rise – faster than or slower than potential growth.
How it is financed – debt or out of current income.
Output gap looks like it is reasonably significant, hence no immediate issues, but if C continues to grow, it might create problems.
Much will depend on what happens on the supply side – if investment picks up and productivity rises, then it will be much easier to meet the increase in consumption without inflation.

Q.	Mark scheme	Total
8 (a)	**Use a supply and demand diagram to explain how expectations of a rise in interest rates might cause the exchange rate to appreciate.** **AO1: 2 marks 1c** Award **2** marks for: • A diagram showing demand shifting to the right with an unchanged supply curve. All labels are correct. • A diagram showing demand shifting to the right and supply to the left. All labels are correct. Award **1** mark for: Diagrams that have key features missing, such as failure to label significant features like the new price or new demand curve. Diagrams which only show supply shifting to the left. Award **0** marks for: Diagrams which only show supply shifting to the left and have key features missing. Diagrams which fail to mark in any prices or outputs. **AO3: 2 marks** Award **2** marks for: Learner clearly explains at least 1 shift with good level of detail as to why the exchange rate will rise. Award **1** mark for: Learner explains the shift clearly but does not fully explain the impact on the exchange rate, or deals with the shift only superficially whilst explaining the increase in the exchange rate. Award **0** marks for: Learner only asserts shifts and appreciation – no detailed explanation.	4

Q.8(b)	Explain how increasing interest rates in spring 2015 might help the Bank of England to achieve its 2% inflation target. [6]	
Band	AO2 1b	AO3
	2 marks	4 marks
	How well has the data been used to support the explanation of how rising interest rates might help to hold down inflation?	How well explained are the links between interest rates and inflation?
2	**2 marks** Learner displays good application to the context of the situation described, using either key points from the text or their own knowledge to explain how a rise in rates in Spring 2015 might be appropriate: For example: Rapidly recovering economy will make rates rise sooner rather than later because of the need to control AD. Above inflation wage deals will likewise drive up AD and create cost pressures, adding to the need to push up interest rates to control AD.	**3-4 marks** Learner explains the process through which interest rates affect inflation very clearly, dealing with all of the key channels – demand pressures and import prices. The linkages are well-explained and it is clear why inflation will be cut. Learner deals with probable effects on consumption, investment and export demand as well as the probable impact of a stronger pound in reducing import prices (or explains that the pound will not actually be affected because the markets have already adjusted).
1	**1 mark** Application is rather generic – although the learner uses the UK economy as a backdrop and the context is of a recovering economy, there is no specific detail about why a rate rise would be particularly appropriate in the case of the UK either from the data or from the learner's own knowledge.	**1-2 marks** Learner either explains the demand side effects in detail, but ignores the exchange rate effects without explaining why. Or Deals with both AD and import prices in a superficial way, perhaps focusing on the effect on savings and simply asserting that import prices will fall.
0	**0 marks** Largely theoretical response, not applied to context.	**0 marks** Impacts on AD and import prices are only asserted.

Indicative content

Increased interest rates will reduce rate of growth of consumption by:

      (i)   Increasing mortgage payments for some groups.
      (ii)   Reducing the rate of growth of asset prices.
      (iii)   Reducing the incentive to borrow.
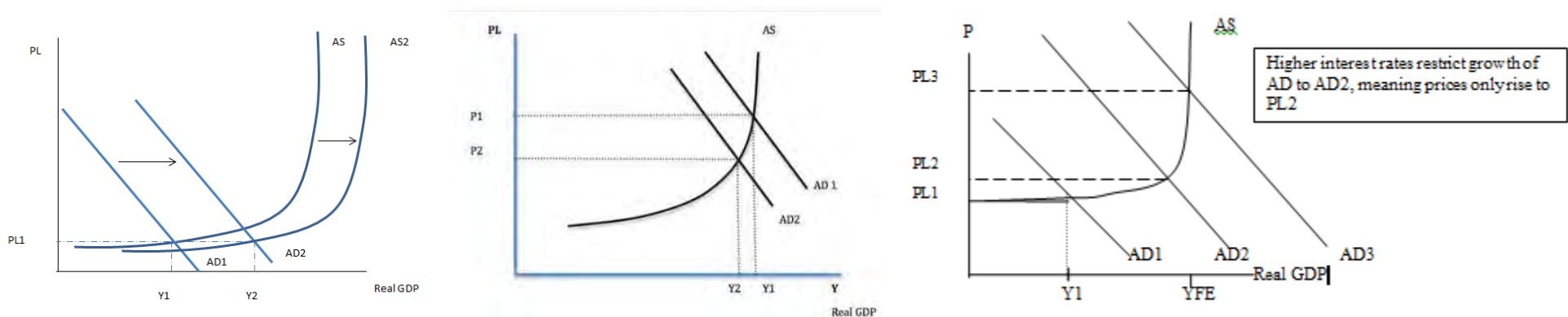   (iv)   Increasing the incentive to save.

Increased interest rates may reduce the growth/level of investment by:

      (i)   Reducing consumption, hence reducing pressure on capacity and reducing likely returns on investment.
      (ii)   Increasing the cost of borrowing/opportunity cost of using own funds.

As noted in part (a) £ will become stronger. This will:

      (i)   Drive up the price of exports in foreign currency terms, which may reduce demand for them.
      (ii)   Push down the price of imported raw materials and finished goods in sterling terms, both directly and indirectly reducing inflation.

As a result of this, inflation will be reduced. Learner might explain this by reference to the wage price spiral (tougher conditions for firms mean that both pay increases will be held down and firms will be reluctant to increase prices) or perhaps with reference to appropriate AD/AS diagrams. Although the intention of the BoE is obviously not to reduce AD, accept diagrams that show AD shifting the left. Better answers use diagrams that show AD rising more slowly or AD matched to the rate of growth of AS.

| Q.9	With reference to the data, discuss whether a cut in the top rate of income tax from 45% to 40% would be beneficial for the UK economy. [6]		
Band	AO1 1b	AO2 1b	AO4 1abc
	2 marks	2 marks	2 marks
	How well has the learner understood the impacts of a cut in income tax?	How well has the data been used to support the discussion?	How well qualified is the answer? Does it judge the extent to which a fall in the top rate of tax will actually be beneficial?
2	**2 marks** Learner shows good understanding of at least 1 side of the debate, showing a good understanding of why a cut in the top rate of income tax might or might not be desirable. Learner will have at least 2 well-developed ideas on either or both sides of the debate.	**2 marks** Learner uses the data effectively within their answer, reading directly from the graph, making reference to the actual lines and percentages shown. Or No actual numbers are used, but the learner refers directly to the high burden of tax on high income groups and also deals with the idea that this appears to have been rising over time.	**2 marks** Learner makes good judgements of at least 1 side of the case, showing good application to the context in their judgements. Alternatively they might judge each side to a more limited extent and come to a conclusion that is well applied to the issue.
1	**1 mark** Learner makes only partially developed points on 1 or both sides of the debate. It is never entirely clear what the benefit or problem really is or why the cut in the top rate of tax will achieve this.	**1 mark** Either: Learner uses the graph but without using the data specifically –'rich people pay a lot of tax', 'the tax burden has been rising'. Or: Learner ignores the graph and points out that the top rate of tax has already fallen once – there is no need for a further fall. Or: Learner deals only with income tax, not the top rate of tax.	**1 mark** Learner makes brief judgements, but fails to come to an overall conclusion or does not really qualify their arguments.
0	**0 marks** Response not credit worthy or not attempted.	**0 marks** Response not credit worthy or not attempted.	**0 marks** Response not credit worthy or not attempted.

Indicative content

Beneficial:

Top rate tax payers may be being driven away – burden of income tax is very high. Hence, cut in rate might lead to increase in revenue. Learner could use Laffer curve to illustrate this. **But, there is no evidence given that high tax rates are cutting yield, therefore it might simply cut tax revenue.**

Cuts in top rate of tax create incentives to entrepreneurs, hence may have positive impacts on aggregate supply. **But, corporation and capital gains tax may be more relevant in this context.**

Cuts in top rate of tax may create incentives for additional effort for top rate tax payers, again having positive impacts on AS. Learner might use AD/AS diagram to illustrate this.

Inappropriate in a global jobs market, will simply lead to 'brain drain'.

Cut in top rate of tax might increase AD. **But marginal propensity to consume of top rate tax-payers is quite low, meaning that this impact is likely to be relatively limited.**
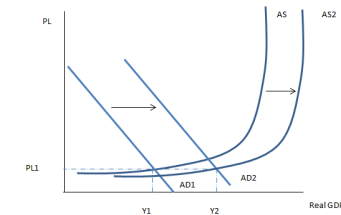
Not beneficial:

Top rate tax payers contribute most of income tax revenue – cutting tax rates may lead to an increase in the budget deficit, with the usual negative implications of this. **But depends – incentive effects might lead to increases in tax yield – Laffer curve.**

The top rate of tax helps to make the system more progressive – eliminating the top rate of tax, will therefore widen inequalities between rich and poor.

Fairness – high income groups can afford to pay these rates and should bear their share of the burden, might have to increase taxes elsewhere, which isn't fair, 'bad banker' style arguments may apply here too.