

2019 SINGAPORE-
CAMBRIDGE
A LEVEL
H1 ECONS
SUGGESTED ANSWER
KEY (8823)

Written and Prepared by Mr Mitch Peh



Preface



Dear JC students in Singapore,
Hope you will find this A Level examination solution set useful for your revision.

The answers and comments to this solution set are personally crafted and written by Mr Mitch Peh, an experienced former MOE JC lecturer and tutor in Singapore. Currently, Mr Peh is a full time A Level private tutor, specialising in the teaching of A Level subjects: Physics, Chemistry, Mathematics and Economics at both H1 and H2 Levels. You can find the A Level solutions for the other subjects under the various subject tabs at www.jpcme.com.

Mr Peh has a proven track record in helping his students achieve success for the A Levels and internal school examinations including promos, advancement tests to JC2, block tests, mid years and prelims. Most of Mr Peh's students achieve "A's and 'B's grades for the A Level examinations. During his stint teaching at St Andrew's Junior College, Mr Peh has helped his classes achieve 100% promotion to JC2 on multiple occasions, attain close to 100% "A"s for H1 Project Work, clinch accolades like "Most Improved Class Award" and "Best Performing Class of the Cohort" for many of the internal school examinations. Mr Peh also has former students who subsequently went on to pursue H3 subjects and enroll in prestigious university courses like Dentistry, Medicine and Law.

If you are interested to be coached by Mr Peh for your preparations towards the A Levels, these are 3 more reasons why you should join Mr Peh's classes:

1. Lessons can be fully customised to your needs

- You have the full autonomy to decide the subject(s), content and pace that you want to cover for each lesson, out of any of the 4 subjects: Physics, Chemistry, Mathematics or Economics.
- Mr Peh will help to analyse your weaknesses in each individual subject and provide personalised feedback and suggestions for improvement.

2. Answers to your questions can be addressed outside of the classroom

- If you face any difficulty or challenge doing any of your tutorial questions, simply take a screenshot with your phone and send it to Mr Peh via Whatsapp. Mr Peh will answer your questions in the earliest possible time when he is available.

3. You only pay the price of 1 subject but enjoy premium coverage for all 4 subjects.

- Mr Peh provides resources for all 4 subjects including summarised notes, compiled topical questions sourced from past year school prelim examinations, Practical guides for Chemistry & Physics, examination checklists, mock papers etc.
- This is probably the only tuition service in Singapore which allows you to enjoy such extensive coverage and benefits.

Note that Mr Peh only takes in a limited number of students each year. You can find his lesson slots available under "Tuition Services" tab at www.jpcme.com. For any further enquiries, you can directly whatsapp him at 9651 7737.

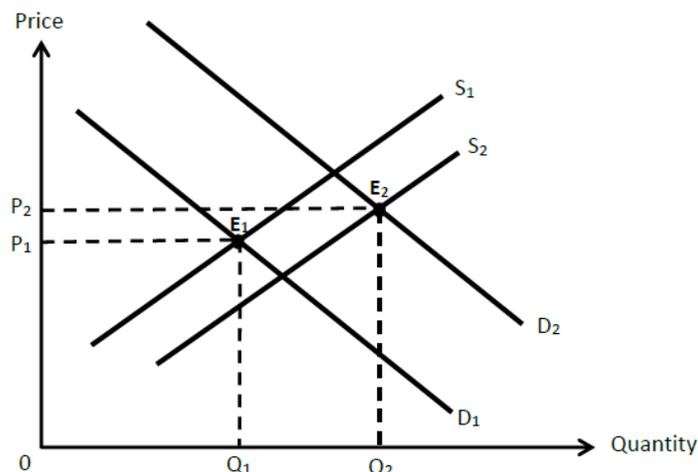
For the solution set below, if you find any discrepancies or you have any feedback or comments, please kindly direct them to Mr Peh through Whatsapp at 9651 7737.

The question paper has been omitted due to copyright reasons.

2019 A Level H1 Economics 8823 Suggested Answer

Question 1

(a)	<ul style="list-style-type: none"> • Both the growth of travel and tourism and growth of total world output was positive throughout the period of 2011 to 2016. • There was a general decrease to both the growth of travel and tourism as well as the growth of total world output from 2011 to 2016. • Growth of travel and tourism decreased at a faster rate compared to the growth of total world output from 2011 to 2016. • Growth of travel and tourism was consistently higher than the growth of world output from 2011 to 2016. <p><u>Comments</u></p> <ul style="list-style-type: none"> • Students can give any 3 out of the 4 points above. 	[3]
(b)	<ul style="list-style-type: none"> • A normative statement is one which involves value judgement and opinion. • It would not be considered a normative statement but considered a positive statement if this statement has been backed by facts which are available, showing Egypt's real GDP growth rate remaining dismal or negative and unemployment rate remaining high, despite the government taking action to repair the economic damage. • However, it would be considered a normative statement if the statement has been made without reference to any macroeconomic indicators, and solely based on the author's feel of the general situation in Egypt. <p><u>Comments</u></p> <p>This question may seem a little unorthodox as we should provide both sides, highlighting the condition for the statement to be a positive or normative one.</p>	[4]
(c)	<p><u>Body 1: Demand Factor</u></p> <ul style="list-style-type: none"> • When the advertising campaign from the increased advertising expenditure by the STB is effective, it would successfully alter the <u>taste and preferences</u> of foreign visitors to want to visit Singapore for its tourist attractions. • This will lead to an increase in the demand for the goods and services produced by the Singapore tourism industry including hotel accommodations and souvenirs from D_1 to D_2. <p><u>Body 2: Supply Factor</u></p> <ul style="list-style-type: none"> • With the improvement in productivity of the hotel industry, output per man hour will increase, leading to a <u>fall in cost of production</u> of the goods and services produced by the hotel industry • Thus, hotels in Singapore will become more willing and able to produce goods and services. Since hotel accommodation is considered a part of Singapore's tourism market, the supply of goods and services produced by the Singapore tourism industry will increase from S_1 to S_2. <p><u>Body 3: Justifying which shift is of a greater extent</u></p> <ul style="list-style-type: none"> • The increase in demand is likely to outweigh the increase in supply. This is because the increase in supply is likely to be small as hotel accommodations form only one of the many segments of the tourism industry of Singapore. 	[6]



Body 4: Price adjustment process and effect to market

- At the original price P_1 , there would be a shortage of goods and services produced by the tourism market as quantity demanded exceeds quantity supplied.
- This would cause foreign visitors to bid the prices up, leading to upward pressure on prices.
- Quantity demanded would then fall and quantity supplied increase until they are equal again.
- Overall, there would be an increase in the equilibrium price of good and services produced by the tourism market from P_1 to P_2 and an increase in the equilibrium quantity from Q_1 to Q_2 .

Comments

- Since the question explicitly states to draw the demand and supply diagram, students should do so as marks are awarded for the diagram.
- For the effect on market, students should explicitly state the changes to both equilibrium price and equilibrium quantity.

(d) Explain the meaning of the multiplier

- When the multiplier effect of increased tourism expenditure in the UK is 2.8, it means that for every \$1000 increase in tourism expenditure, an additional \$2800 of real national income is being generated.
- This is because an increase in tourism expenditure will cause export revenue earned by the economy to increase, resulting in an increase of injection into the economy.
- This injection into the economy will cause firms in the tourism industry to hire more factors of production including labour to produce the additional goods and services required. In turn, household members who work in the tourism industry will earn higher wages, and they will spend a significant portion of this additional income on consumption expenditure for goods and services produced in the other industries.
- This process repeats itself through many rounds, thus generating the multiplier effect where the total real national income received by households from the many rounds amount to \$2800.

Comment on how reliable the estimate is

- However, this estimate is not likely to be reliable as the magnitude of multiplier effect being 2.8 seems too high.

[5]

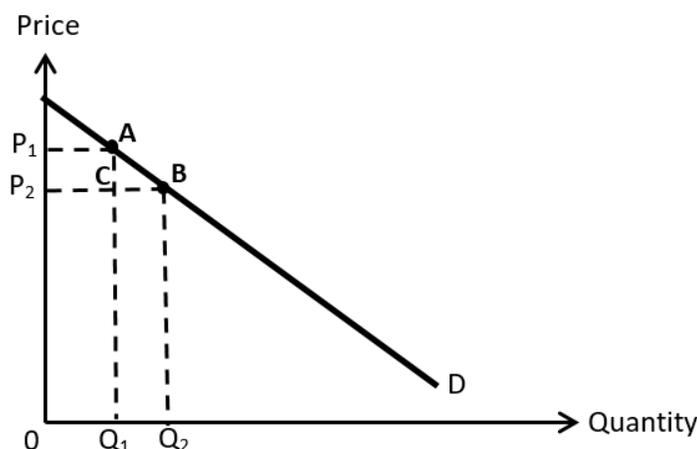
- This is because as mentioned in Extract 3, money generated by tourism leaks away to multinational companies which are likely to repatriate much of the profits earned back to their home country, rather than passing down into the hands of the domestic households.
- Furthermore, the income earned by workers working in the tourism industry are often low and the jobs are seasonal.
- This may mean that the marginal propensity to save is high, as workers working in the tourism industry will need to save and have funds available to support families during the off season.
- Hence, the multiplier effect should be lower than 2.8, thus making it not reliable.

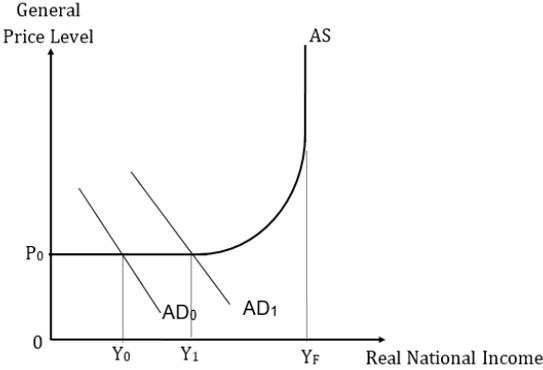
Comment

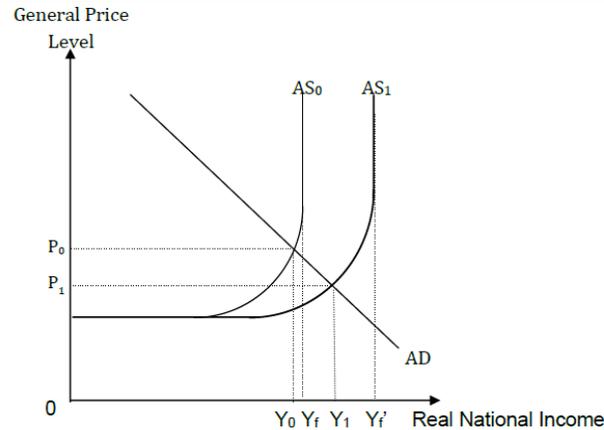
- In the syllabus document, it is stated that an awareness of an increase in AD having a multiplied effect on national income will suffice. Thus, students may not have learnt the multiplier effect in great depth in their respective schools to answer this question well.
- The multiplier is given by $\frac{1}{mpw}$ where $mpw = mps + mpt + mpm$, where mps is the marginal propensity to save, mpt is the marginal propensity to tax, mpm is the marginal propensity to import and mpw is marginal propensity to withdraw.
- The multiplier is likely to be small when mpw is large.

- (e)
- A fall in the value of the pound sterling means that the price of hotel accommodations in terms of foreign currency becomes lower.
 - The demand for the hotel accommodation by an individual UK hotel owner is likely to be price elastic as there are many substitutes in terms of the different types of hotel accommodations available i.e. $PED > 1$.
 - Hence, a fall in the price of hotel accommodation will lead to a more than proportionate increase in quantity demanded, ceteris paribus.
 - The increase in revenue due to the increase in quantity demanded (Area Q_1Q_2BC) is likely to exceed the fall in revenue due to the fall in price (Area P_1P_2CA).
 - Thus, UK hotel owners can make use of the concept of PED to estimate there will be an overall increase to their revenue from area OP_1AQ_1 to OP_2BQ_2 .
 - This is supported by Extract 2.4 which mentions that overseas visitors to UK spent record amount of money in shops, hotels and restaurants.

[8]



(f)	<p>Introduction</p> <ul style="list-style-type: none"> Significant additional government expenditure on measures aimed to reduce likelihood of terrorist incidents will have impacts on the country's economic growth and unemployment level. <p>Positive impacts on the macroeconomy</p> <ul style="list-style-type: none"> With significant additional government expenditure (G), this will be able to boost the aggregate demand (AD) of the country since government expenditure is considered an important component of AD where $AD=C+I+G+(X-M)$. When the measures are effective in reducing the likelihood of terrorist incidents, this will increase the stability and security within a country such as France. As a result, there will be an increase in consumer and investor confidence in France and France becomes an attractive destination for foreign tourist visits again. Thus, there will be an increase in consumption expenditure (C), investment expenditure (I), export revenue and thus net exports (X-M) which can significantly increase the AD of France from AD_0 to AD_1. Given that France is likely to operate within the Keynesian range of the AS curve due to the presence of excess spare capacity, real national income would then increase from Y_0 to Y_1, allowing France to enjoy actual economic growth. Since labour is a derived demand of production, firms will hire more workers to produce the higher output, leading to a fall in demand deficient unemployment as well. <div data-bbox="548 953 1091 1323" style="text-align: center;">  </div> <ul style="list-style-type: none"> In addition investment expenditure will increase the quantity and quality of capital in the country, which can lead to an increase in productive capacity, causing long run aggregate supply (LRAS) to increase from AS_0 to AS_1. Full employment level of national income will increase from Y_f to Y_f, thus contributing to potential growth as well. 	[9]
-----	---	-----



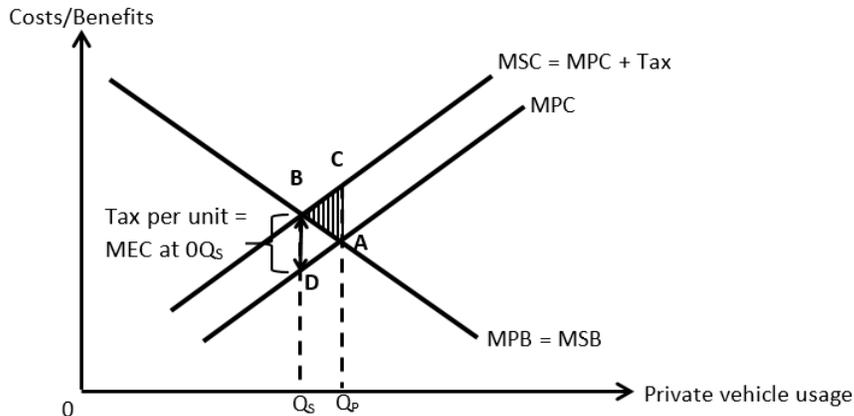
Negative impacts on the macroeconomy

- However, there may be unintended negative consequences on the macroeconomy due to the additional government expenditure as well.
- Spending on measures to reduce the likelihood of terrorist incidents will incur an opportunity cost as resources have to be diverted away from other essential sectors like infrastructure and education.
- As these other sectors may help to generate significant amount of actual and potential growth as well as employment for France, economic growth in France may be hindered and unemployment level worsened instead.
- In addition, the additional government expenditure of these measures can worsen the fiscal debt that France is having, given that the France government is also collecting less tax revenue in terms of lower personal income tax and corporate income tax when domestic households cut their consumption expenditure and investors cut their investment expenditure due to increased uncertainty and lower confidence arising from the terrorist incidents.
- Then, the government may have to borrow from the banking sector by selling bonds which can decrease the loanable funds available to private firms. This can lead to the crowding out effect where private sector investments decrease.
- As a result, there will be a further decrease in investment expenditure, causing further negative economic growth and higher unemployment, harming the France economy instead.

Conclusion

- In conclusion, the positive impacts of additional government expenditure on measures aimed to reduce likelihood of terrorist incidents is likely to be observable only in the long run.
- This is because it takes time to restore the confidence of investors and foreign visitors. Many investors and foreign visitors would likely take a wait-and-see approach, ensuring that it is indeed safe to invest and visit France again before doing so.
- Also, whether the positive impacts will be observed depend on how effective the measures are in thwarting terrorist incidents. If terrorist incidents continue to happen despite the additional government expenditure on measures to curb them, it is unlikely that there will be an increase in investment expenditure and tourist numbers, which means that the positive impacts will unlikely be observed.

	<p><u>Comment</u></p> <ul style="list-style-type: none"> Students should note that tourist spending will contribute to export revenue and not consumption expenditure in the country. 	
(g)	<p><u>Introduction</u></p> <ul style="list-style-type: none"> There are negative externalities arising from the consumption of goods and services due to increased inbound tourism. This is because tourism can result in overuse and overcrowding of resources, creating pollution through traffic emissions, litter and noise which are detrimental to the welfare of the locals who are not involved in the tourism sector (third parties). Hence, this causes a divergence between MPC and MSC where $MSC = MPC + MEC$. Tourists who aim to maximise their utility will consume Q_p units of goods and services in the country where $MPB = MPC$. However, society which aims to maximise societal welfare will decide the socially optimal level of consumption of tourism related goods and services to be at Q_s where $MSB = MSC$. Since $Q_p > Q_s$, this results in an overconsumption of tourism related goods and services, resulting in deadweight loss of area ABC, allocative inefficiency and societal welfare not maximised. <div data-bbox="472 821 1177 1207" data-label="Figure"> </div> <p>Thesis: Imposing an indirect tax can minimise the effects of negative externalities arising from increased inbound tourism</p> <p><u>Explain how indirect tax works</u></p> <ul style="list-style-type: none"> To minimise the effects of the negative externalities, the government can implement a specific tax per unit equal to MEC at OQ_s. This will cause tourists into the country to internalise the negative externalities, shifting their MPC up $MPC + \text{tax}$. Hence, tourists will then reduce their tourism related consumption of goods and services in the country to the socially optimal level OQ_s by equating $MPB = MPC + \text{tax}$. Overconsumption and deadweight loss of area ABC will be eliminated, allocative efficiency achieved and societal welfare maximized. 	[10]



Explain limitations of tax

- However, indirect tax may not be the best way as it is difficult for governments to determine the amount of MEC arising from tourism related activities and thus difficult to estimate the amount of tax to impose. Hence, the government may undertax, causing the overconsumption of tourism related goods and services to persist, deadweight loss not to be eliminated and societal welfare not maximized.
- Also, indirect tax may not be the best way especially for economies which are heavily dependent on the tourism sector for growth. This is because with the reduction of the consumption of tourism related goods and services, the economy may experience a fall in export revenue and thus net exports, which can result in negative actual growth and demand deficient unemployment since labour is a derived demand for production. This is supported by Extract 3 which mentions that tourism creates employment both directly and indirectly in sectors such as retail and transportation.

Antithesis: Other policies can minimise the effects of negative externalities arising from increased inbound tourism

Explain how direct regulation works

- Another way that governments can consider to minimise the effects of negative externalities arising from increased inbound tourism is through direct regulation.
- For example, governments can introduce regulations such as making it illegal for tourists to litter, pollute the water supply of the country and making excessive noise that generates negative externalities, harming the welfare of the locals.
- When these measures are effective, the effects of the negative externalities arising from increased inbound tourism will be minimized.

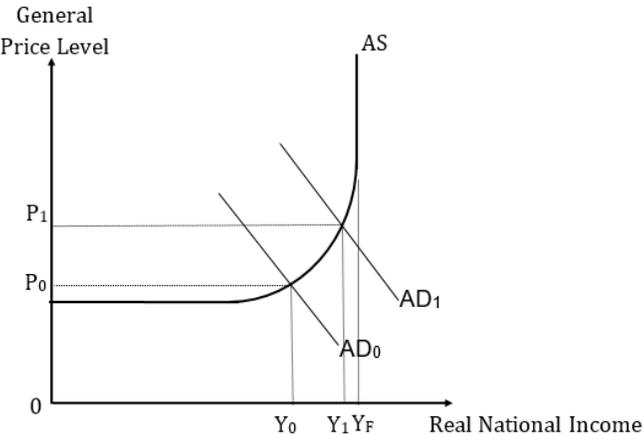
Limitations of direct regulation

- However, regulation can be difficult to enforce as it may not be easy to monitor the behaviour of all the tourists in the country. Punitive measures such as fines have to be severe enough in order to be an effective deterrent of behaviour that generate negative externalities for the locals.
- As such, significant amount of administrative costs also have to be incurred by the government for the enforcement of the regulation. This can result in opportunity cost incurred as resources have to be diverted away from other essential sectors like infrastructure and education which can hinder economic growth of the economy.

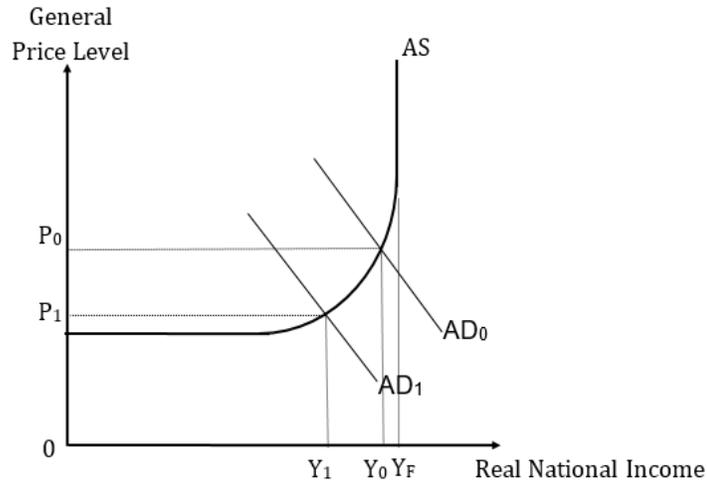
	<p><u>Conclusion</u></p> <ul style="list-style-type: none"> • Overall, indirect tax can still be considered the best policy to minimise the effects of the negative externalities arising from increased inbound tourism • This is because indirect tax provides market based incentives in deterring the consumption of tourism related goods and services which generate negative externalities, unlike direct regulation which does not. • As a result, less enforcement and administrative costs have to be incurred compared to direct regulation. • However, rather than taxing on all tourist inbound expenditure, the tax can be more targeted at consumption of tourism related goods and services that generate negative externalities for the locals. • For example, a transport tax or surcharge can be imposed on taxi rides originating from airports and tourist attractions so that tourists will be discouraged from taking private transport and switch to the use of public transport like trains and buses. Then, this will reduce the pollution and traffic congestion caused by tourists which in turn leads to negative externalities like poorer health and lower productivity for the locals. <p><u>Comments</u></p> <ul style="list-style-type: none"> • Students should always provide economic analysis on how each policy works in addressing the effects of the negative externalities before elaborating on the pros and cons of the policies. • Similar to 2018 H1 Paper, students should avoid suggesting public education as a policy because in Economics, we assume economic agents are self-interested so tourists would display apathy towards the negative externalities that they cause, despite the educational campaigns being conducted. 	
[Total: 45]		

Question 2

(a)	<p><u>Conclusion about living standards in US</u></p> <ul style="list-style-type: none"> • Firstly, the GDP per capita of US in 2015 is higher than that of OECD average. This means that the households in US are generally earning high income which allows them to have the purchasing power to purchase goods and services for consumption. Hence, US households generally enjoy high material standard of living. • Secondly, the unemployment rate of US in 2015 is lower than that of OECD average. This means that more individuals in US have jobs and income available which will allow them to have the purchasing power to purchase goods and services for consumption. Thus, this further reinforces the fact that US households generally enjoy high material standard of living. • Thirdly, the Gini coefficient of US is significantly higher than that of OECD average. This means that there is high income inequality in US. Thus, there may be a significant proportion of the US population earning lower income than the OECD average. Their purchasing power is lower and less able to purchase goods and services for consumption. Thus, this group of households will have low standard of living. 	[6]
-----	--	-----

	<p><u>Comment on the effectiveness of the indicators as a measure of living standards</u></p> <ul style="list-style-type: none"> • The indicators are only a good indicator of material standard of living but not non-material standard of living. • More data such as number of working hours, air quality level, life expectancy and literacy rates are required to assess the quality of life and thus determine the level of non-material standard of living in US. 	
(b)	<ul style="list-style-type: none"> • The first characteristic is that income inequality in the US has been rising, with Gini coefficient generally increasing from 1979 to 2013. • The second characteristic is that US has a greater degree of income inequality than almost all other developed nations. • The third characteristic is that wealth inequality in the US is worse off compared to the income inequality. 	[3]
(c) (i)	<ul style="list-style-type: none"> • Lower rates of unemployment could have been achieved with an increase in consumption expenditure, investment expenditure, government expenditure or net exports. • This would lead to an increase in aggregate demand from AD_0 to AD_1. • Given that a country's economy is operating in the intermediate range where there is limited excess spare capacity, real national income and output will increase from Y_0 to Y_1 via the multiplier effect. <div style="text-align: center;">  <p>The diagram is an AD-AS model. The vertical axis is labeled 'General Price Level' and has points P_0 and P_1 marked. The horizontal axis is labeled 'Real National Income' and has points Y_0, Y_1, and Y_F marked. A vertical line represents the AS curve. Two downward-sloping lines represent aggregate demand, AD_0 and AD_1, with AD_1 to the right of AD_0. The initial equilibrium is at the intersection of AD_0 and AS, corresponding to P_0 and Y_0. The new equilibrium is at the intersection of AD_1 and AS, corresponding to P_1 and Y_1. Y_F is marked on the horizontal axis to the right of Y_1.</p> </div> <ul style="list-style-type: none"> • Since labour is a derived demand, firms will hire more labour for production of goods and services, leading to a fall in demand deficient unemployment. • Also, due to limited spare capacity, firms will have to compete among themselves to utilise existing resources, which will lead to an upward pressure on general price level. • Hence, there is an increase in general price level from P_0 to P_1 as well. • Further increase in aggregate demand will only serve to push the general price level up to a larger extent as the amount of excess spare capacity in the economy decreases. • This explains why lower rates of unemployment is expected to be associated with higher rates of inflation. <p><u>Comments</u></p> <ul style="list-style-type: none"> • Students draw the ADAS diagram here as marks can be awarded for the diagram. • Note that the question is asking why lower rates of unemployment is associated with <u>higher rates of inflation</u> and not simply why lower rates of unemployment leads to inflation. 	[6]

<p>(ii)</p>	<ul style="list-style-type: none"> • From Table 2, the unemployment rate has consistently fallen over the years from 2009 to 2016. • However, inflation rate has only become higher from 2010 to 2011 and from 2015 to 2016. Thus, the data only supports the above expectation to a small extent. • One possible reason for the finding is that there is also an increase in the productive capacity of the economy. • For example, an increase in investment expenditure and government expenditure will cause the quantity and quality of capital in the economy to increase, thus leading to an increase in productive capacity as well. • Then, this will result in an increase in long run aggregate supply from AS_0 to AS_1. • The general price level will then increase to a smaller extent from P_0 to P_2, instead of increasing from P_0 to P_1. Hence, this is one possible explanation why lower unemployment rate can happen simultaneously with lower inflation rates in the economy. 	<p>[6]</p>
<p>(d)</p>	<ul style="list-style-type: none"> • From Extract 5, the US Federal Reserve proposed to increase interest rates to prevent potential inflation. • When interest rate increases, the cost of borrowing becomes higher for both households and firms. Thus, households will be incentivised to save more and spend less. They will then reduce their consumption expenditure (C) especially on big ticket items like automobiles and housing. • For firms, the returns to investments become lower so they will be incentivised to reduce their investment expenditure (I) as well. • This will then result in a decrease in aggregate demand (AD) since $AD=C+I+G+(X-M)$. • A fall in AD will result in a fall in real national income from Y_0 to Y_1 and fall in general price level from P_0 to P_1. • Thus, demand pull inflation can be prevented. 	<p>[4]</p>

(e) Introduction

- Accelerating changes in technology can include automation and switching the mode of production from labour intensive methods to capital intensive methods with the adoption of machines and equipment for the production of goods and services.

Body 1: Accelerating changes in technology can result in worsening unemployment

- As mentioned in Extract 7, accelerating changes in technology can reduce employment possibilities especially for lower skilled workers.
- This is because lower skilled workers especially in the manufacturing sector can easily be displaced by machines and equipment, thus many of them may face retrenchment when the firms that they are working for leverage technology to produce greater output.
- In addition, many of these retrenched lower skilled workers lack the skills required to work in both the transformed and new industries.
- This can lead to structural unemployment where there is a mismatch between the skills required by the industries and those possessed by the unemployed workers, thus worsening unemployment.

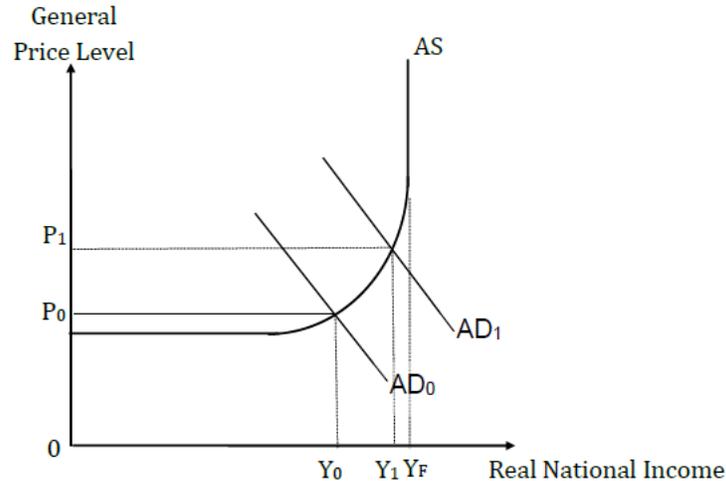
Body 2: Accelerating changes in technology can result in re-distributional consequences

- Furthermore, accelerating changes in technology can result in re-distributional consequences.
- For higher skilled workers, they tend to be able to adapt and leverage technology to improve their productivity.
- This will allow higher skilled workers to command higher wages and earn higher income.
- In contrast, lower skilled workers who become increasingly less able to meet the changing demands of the workplace and industries due to technological changes will command lower wages and earn lower income.
- As a result, the income disparity between low skilled and high skilled workers will increase, resulting in re-distributional consequences where a larger proportion of the country's national income is concentrated in the hands of the high skilled workers.

[8]

	<p><u>Body 3: Accelerating changes in technology may not result in worsening unemployment and re-distributional consequences</u></p> <ul style="list-style-type: none"> • However, accelerating changes in technology may also not necessarily result in worsening unemployment and re-distributional consequences. • When low skilled workers receive adequate training through workshops and training programmes to acquire the new skills that are required by the industries with the technological changes, they can remain relevant and able to meet the changing demands of the workplace and industries due to technological changes. • Then, there would not be a case of worsening unemployment due to mismatch between the skills possessed by low skilled workers and those required by the industries. • In addition, such training can help to improve the productivity of low skilled workers especially if low skilled workers are taught how to operate the new machines and equipment which come with the technological changes. • Then, low skilled workers are also able to command higher wages and earn higher income, which will be able to reduce the income disparity between low skilled and high skilled workers, thus helping the economy to avoid the re-distributional consequences due to accelerating changes in technology. <p><u>Conclusion</u></p> <ul style="list-style-type: none"> • In conclusion, accelerating changes in technology may still result in worsening unemployment and re-distributional consequences especially in the short run. • This is because low skilled workers typically take longer time to learn and acquire the new skills required by the industries arising from the technological changes compared to high skilled workers. Furthermore, many of these low skilled workers may lack the aptitude or may not be receptive towards training, which will render the training ineffective to raise their productivity and relevance with the technological changes. • Hence, to mitigate the effects of unemployment and re-distributional consequences, government intervention such as the provision of transfer payments is necessary. <p><u>Comment</u></p> <ul style="list-style-type: none"> • The challenge to this question is that not much information has been provided on the details of the accelerating changes in technology. 	
(f)	<p><u>Introduction</u></p> <ul style="list-style-type: none"> • Fiscal policies through the use of lower personal income tax rates, lower corporate income tax rates, progressive income tax system and means tested subsidies for lower income groups can help to achieve more inclusive growth. <p><u>Use of lower personal income tax rates and lower corporate income tax rates</u></p> <ul style="list-style-type: none"> • Firstly, growth can be achieved through the lowering of personal income tax rate and corporate income tax rate. • With lower personal income tax rate, the disposable income of households will increase which will increase their purchasing power, making them more willing and able to purchase goods and services especially big ticket items such as automobiles and housing. This will lead to an increase in consumption expenditure (C). • With lower corporate income tax rate, the expected after tax profits of firms increases. This provides firms with incentive to invest, thus leading to an increase in investment expenditure (I). 	[12]

- With increase in C and I, this leads to an increase in aggregate demand (AD) from AD_0 to AD_1 since $AD=C+I+G+(X-M)$.
- Then, real national income increases from Y_0 to Y_1 via multiplier effect, and actual economic growth is achieved.
- As a result, the tax base available for the government increases. This may lead to an increase in the tax revenue collected by the government, and in turn allows the government to redistribute income in the form of subsidies to the lower income households, thus achieving inclusive growth.



Limitations of lowering personal income tax rate and corporate income tax rate

- However, the effectiveness of these policies is limited when the marginal propensity to withdraw for the economy is high. For example in Singapore, the marginal propensity to save is high due to compulsory CPF savings scheme and the Asian culture of thrift. Marginal propensity to import is also high in Singapore due to the lack of natural resources. Then, an increase in aggregate demand will only lead to a small multiplier effect where the increase in national income is limited. Thus, fiscal policy would then not be effective in achieving actual and inclusive growth.
- Another limitation of the policy is that it can lead to the unintended consequence of demand pull inflation. Given that the economy is operating in the intermediate range of AS curve with limited excess spare capacity, an increase in aggregate demand will also cause general price level to increase from P_0 to P_1 . For lower income households, the rate of increase in prices may be higher than the rate of increase in their wages and income. This will cause their real disposable income to become lower, decreasing their ability to purchase goods and services, thus worsening their welfare and the economy is unable to achieve more inclusive growth.

Use of progressive income tax system and subsidies

- Alternatively, fiscal policies through the use of progressive income tax system can help to achieve more inclusive growth as well.
- Under a progressive income tax system, individuals of higher income group will pay higher tax rates compared to individuals of lower income group.
- This increases the tax revenue that the government collects, thus allowing the government to redistribute the income from higher income earners to lower income earners through various subsidies.

- In the case of Singapore, the subsidies include the Workfare Income Supplement Scheme, GST vouchers, higher subsidies for the lower and middle-income households in education, housing and healthcare.
- As such, the income inequality between low income and high income earners can be reduced, thus achieving more inclusive growth.
- For the Workfare Income Supplement scheme, low income workers receive supplement to their income through cash payments and CPF contributions. This not only reduces income inequality, but it can also lead to actual growth when the low wage workers increases their consumption expenditure. In addition, it can also lead to potential growth when older workers are incentivized to enter the labour force and take on low wage jobs.

Limitations of progressive income tax system and subsidies

- However, progressive income tax may also reduce the incentive to work, encouraging households to spend more time on leisure instead since the opportunity cost of leisure which is the disposable income earned from working has become reduced when households earning higher income have to pay higher tax rates. With lower quantity of labour in the economy, output produced will become lower, thus actual economic growth of the economy will become hindered.
- On the other hand, broad based subsidies may not be effective in achieving inclusive growth if everyone in the economy including high income households are entitled to receiving the subsidies. This is because such subsidies may lead to an increase in consumption expenditure and AD, thus pushing up general price level even higher, making goods and services less affordable and accessible to lower income households.

Conclusion

- In conclusion, fiscal policies can still achieve inclusive growth to a large extent.
- To do so, governments have to ensure that individuals falling under higher income bracket pay higher tax rates but not to the extent that it will severely lower their incentive to work. Similarly, terms and conditions can be attached to the subsidies given out, such as lower income groups having to work for a minimum number of hours before they can receive the supplement to their income.
- For small and open economies, fiscal policies alone is unlikely to be sufficient as the country is heavily dependent on external markets for growth. As such, other policies like exchange rate policy and signing free trade agreements with other nations are essential, on top of fiscal policies, in order to boost trade and net exports thus helping the country to achieve inclusive growth.

Comment

- Note that this question is solely focused on fiscal policies. Hence, students should not be discussing other policies at length within the body paragraphs.
- Answers should have significant emphasis on growth being inclusive i.e. lower income households being able to enjoy the benefits of the economic growth experienced by the country.

[Total: 45]