



**Anderson Junior College
JC2 2018 H2 Economics
Preliminary Examination**

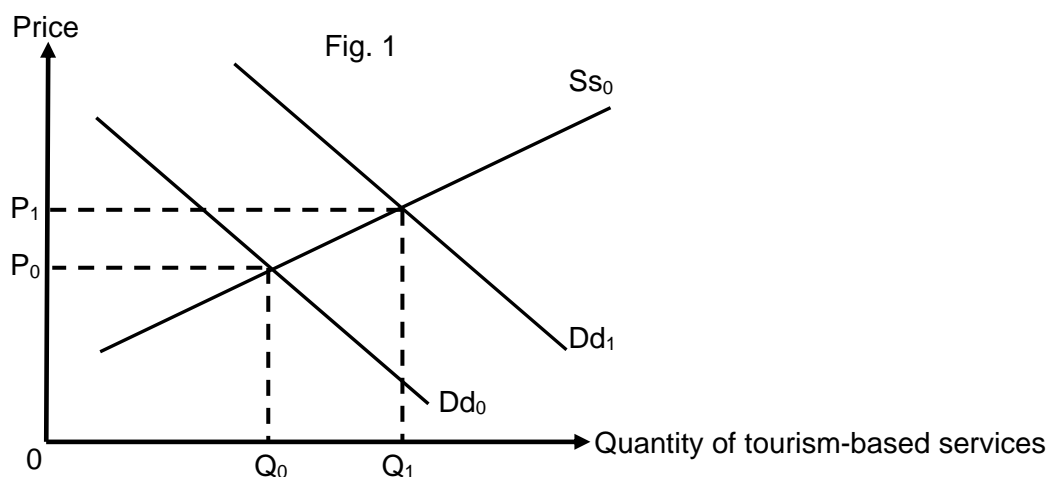
Essay 1

Singapore's visitor arrivals hit new record highs in 2017. This has resulted in the growth of tourism-based services.

Discuss the demand and supply factors that can account for the reported change in the volume of tourism-based services in Singapore and evaluate which is likely to be the most significant factor. [25]

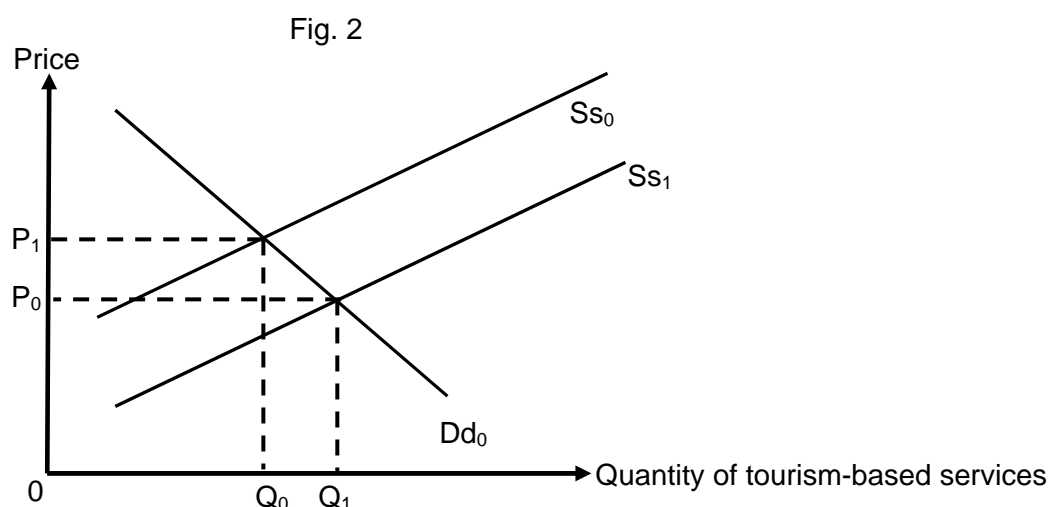
Demand factors:

- Better than expected **global economic recovery** → increase in income. As income increases, the concept of **income elasticity of demand** can be applied. Income elasticity of demand measures the responsiveness of demand to a change in income, ceteris paribus. Given that demand for tourism-based services is income elastic, as it is a luxury good, the increase in income would have resulted in a more than proportionate increase in the demand for tourism-based services, resulting in a significant increase in its equilibrium quantity. This accounts for the increase in volume of tourism-based services.
- The Singapore Tourism Board and its industry partners also have engaged in marketing efforts to promote tourism in the country, such as through various campaigns and by tapping on online platforms. This could have resulted in a change in **taste and preference** in favour of tourism in Singapore. This again will result in an increase in demand.
- Entrance of budget airlines into the air travel market increases the supply of air travel, reducing the price of air travel. As air travel and tourism-based services are close complements, the demand for tourism-based services is highly negatively cross elastic in relation to price of air travel. **Cross elasticity of demand** measures the responsiveness of demand of one good to a change in price of another good, ceteris paribus. A lower price of air travel will increase the quantity demanded of it and hence demand for tourism-based services would increase by more than proportionately.
- As demand increases, the concept of **price elasticity of supply** can be applied. Price elasticity of supply measures the responsiveness of quantity supplied of a good to a change in its price, ceteris paribus. Supply of tourism-based services is relatively price elastic given the availability of spare capacity. There has been an expansion in the tourism industry over the years with creation of more tourist spots. Given the increase in demand due to above-mentioned factors, the demand curve shifts from Dd_0 to Dd_1 as shown in Fig. 1. Price would increase, causing a more than proportionate increase in quantity supplied of tourism services from Q_0 to Q_1 . This accounts for the reported change in volume of the tourism-based services.

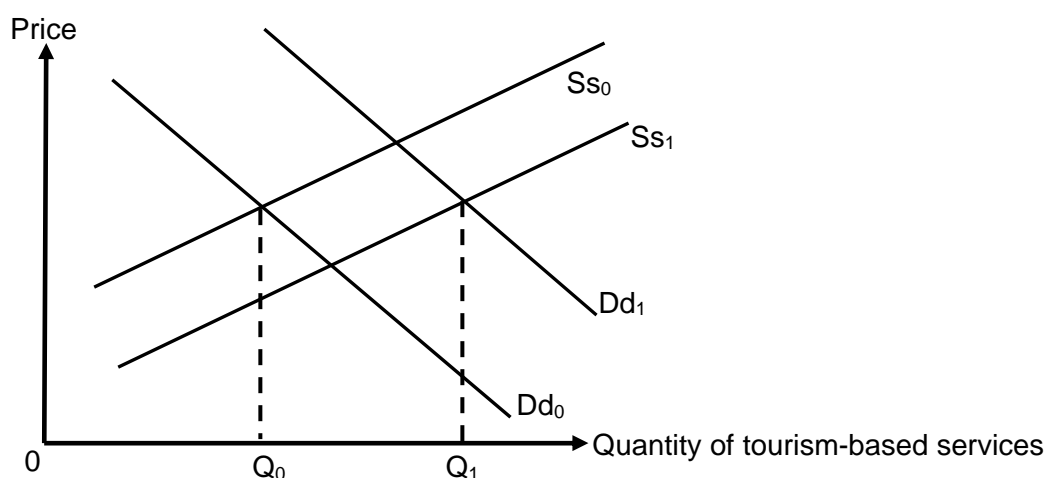


❖ **Supply factors:**

- There has also been many **government initiatives** to support competitiveness and innovation in the industry. For instance, the Singapore Tourism Board provides grants to support companies in areas of capability development, event development and product development. This could reduce the cost of production incurred by the firms, increasing supply of tourism-based industries.
- **Technological advancement** also enables firms to adopt more automation in provision of tourism-based services, such as the use of self-service kiosks. With the use of technology, output per unit of input increases, reducing cost per unit of output. This increases supply of tourism-based services.
- As supply increases, the concept of **price elasticity of demand** can be applied. Price elasticity of demand measures the responsiveness of quantity demanded of a good to a change in its price, ceteris paribus. Demand for tourism-based services in Singapore is price elastic due to availability of substitutes such as tourism-based services in other countries. Given the increase in supply due to the factors mentioned earlier, the supply curve shifts from Ss_0 to Ss_1 as shown in Fig. 2 below. The reduction in price due to the increase in supply will result in a more than proportionate increase in quantity demanded of tourism-based services from Q_0 to Q_1 . This accounts for the reported change in volume of the tourism-based services.



- **Both the increase in demand and supply** will result in an increase in the quantity of tourism-based services as shown below from Q_0 to Q_1 , hence the increase in the volume of tourism-based services.



- ❖ **EV:** Demand-side factors, particularly the global economic recovery, is likely to be the most significant factor contributing to the increase in volume of tourism in Singapore. The economic recovery was stronger than expected, hence income increases to a large extent, amplifying the increase in demand. In addition, in recent years, Singapore has developed various high-end tourism experiences such as the Gardens by the Bay, the Integrated Resorts and Universal Studios. As these services appear more luxurious, the YED value is much greater than one, causing a more significant increase in demand due to the increase in income. Supply factors mentioned earlier are likely to be less significant as their effects tend to be gradual in nature, and unlikely to cause the significant rise in volume of tourism-based services.

Knowledge, Application/Understanding and Analysis		
L3	For an answer that applies thorough economic analysis, with consideration of context, in accounting for the increase in the volume of the tourism-based services.	15-20
L2	For an answer that applies some economic analysis in accounting for the increase in volume of the tourism-based services.	9-14
L1	For an answer that shows knowledge of factors that might account for the increase in volume of the tourism-based services.	1-8

E3	For an answer that uses analysis to support an evaluative conclusion on the most significant factor that accounts for the increase in the volume of the tourism-based services.	4-5
E2	For an answer that makes some attempt at evaluation or a conclusion about the most significant factor that accounts for the increase in volume of the tourism-based services.	2-3
E1	For an answer that gives an unsupported evaluative statement.	1

Essay 2

Ten years ago, it seemed like Walmart had monopoly power when it came to retail. Today, Walmart has been displaced by an online retailer, Amazon. Walmart has had to deal with risks and uncertainty like the trend towards e-commerce and slower economic growth while trying to compete.

(a) Explain the factors that a firm considers in deciding whether to be larger. [10]

Factor	Elaboration
Constraints	1. Need to consider how constraints may affect the willingness or ability to grow. For instance, government policy may prevent firms from growing (prevent merger) or the amount of financial capital or loans that firms can get access to will also determine if a firm can fund expansion.
Advantages (Benefits)	<p><u>Revenue advantages</u></p> <p>1. Higher market share may mean that demand becomes more price inelastic → due to lower availability of substitutes → firms can now choose to increase prices to increase revenue rather than lower prices → more sustainable method to increase profits, ceteris paribus.</p> <p>2. By become larger, firms can also gain more price setting ability to deter entry and increase market share by engaging in predatory pricing → can increase profits in the long run</p> <p>3. There is still untapped demand in market → can easily increase demand for firm's product → by becoming larger, TR can increase.</p> <p><u>Cost advantages</u></p> <p>4. Available internal economies of scale that firms can tap on as they grow large, e.g. marketing economies of scale where firms can purchase inputs (raw materials) in bulk and bargain for discounts and lower unit prices from suppliers → lower costs and hence, ceteris paribus, increase profits.</p>
Disadvantages (Costs)	<p>1. Economic growth is slowing → Higher business risks and uncertainty → vertical integration may provide higher risks due to more inflexible cost structure → lower growth may lead to fall in demand and TR but TC is now higher and more difficult to lower → lower profits</p> <p>2. Growing larger may result in the onset of diseconomies of scale → higher unit costs → may lead to lower profits</p>
<p>Other possible factors:</p> <p>Considering different perspectives:</p> <p>Situation in the economy → falling demand due to slowing growth → may then choose to diversify into other product markets (i.e. inferior goods)</p> <p>Perspective of rival firms and rival's action in response to the firm growing, i.e. unsustainable price wars with uncertain effects.</p>	

	Knowledge, Application/Understanding and Analysis	
L3	For a well-developed answer with at least three factors and includes both revenue and cost advantages/disadvantages. Consideration of factors should link to how profits enjoyed by the firm is affected unless factor to consider is an alternative objective of the firm. Good use of examples to illustrate the effects on revenue/costs.	8 – 10
L2	For an underdeveloped answer that consider at least two factors on revenue and/or cost advantages/disadvantages.	5 – 7
L1	For an answer that lacks scope and depth, or is a mere listing of points. There may be multiple major conceptual errors.	1 – 4

(b) Discuss whether the determination of Walmart's decisions and strategies are more dependent on competitors' actions or business risks and uncertainty. [15]

Dependent on...	Elaboration
Competitors' actions - Pricing strategies - Non-pricing strategies	<p>(affects Walmart's pricing and output, shutdown decision) Walmart is likely to operate in a competitive oligopolistic market structure where this is a high degree of mutual interdependence and rival consciousness.</p> <p>If rivals (such as Amazon) lower prices, Walmart will also respond with lower prices of similar or larger magnitude to maintain its market share and profit levels.</p> <p>If rivals lower prices to the point where it is below Walmart's AVC, it will choose to shut down.</p> <p>(affects Walmart's pricing and non-pricing strategies) Trend towards e-commerce → Walmart will also innovate and product differentiate by offering an online platform. Furthermore, as a large incumbent firm, Walmart may even choose to merge with or acquire new online e-commerce start-ups to expand its operation.</p> <p>Advertising and promotion campaigns during festive seasons → Walmart will offer similar promotions i.e. express shipping/free delivery or extensive membership programmes and benefits → Maintain market share and supernormal profits</p>
Business risks and uncertainty - Uncertainty in revenue	<p>(affects Walmart's growth decisions and non-pricing strategies) Slowing economic growth → Walmart may recognise the volatility in economic conditions and offer a larger variety of goods and diversify e.g. horizontal integration, to establish more revenue streams. Alternatively, in light of the slowing growth, Walmart may also offer own label products which may be perceived as inferior. Inferior goods will enjoy rise in demand during economic uncertainty and lead to higher revenue and profits for Walmart.</p> <p>If PED is uncertain, Walmart may use a combination of price and non-pricing strategies to make predicted changes in revenue more certain. E.g. Advertising and promotion campaigns to alter tastes and preferences to make demand price inelastic before raising prices or vice versa.</p>
- Uncertainty in costs	<p>(affects Walmart's growth decisions and non-pricing strategies) Walmart may diversify into factor markets (vertical integration) to have more certainty in costs of production.</p> <p>Walmart may even invest in new technology to tackle potentially rising costs but do so by procuring R&D outcomes rather than embarking on their own research projects. For instance, Walmart</p>

	may improve efficiency by using self-checkout machines developed by other firms and not create their own. Walmart may also leverage established e-commerce payment platforms (i.e. paypal) rather than create their own payment systems. This may lead to lower costs for Walmart.
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More or less dependent on competitors' actions or business risks and uncertainty depends on...	
Time period	<p>Business risks and uncertainty may become less significant over time as Walmart can gather more information. Thus, this may be important in the short run but in the long run, Walmart's actions are more likely to be dependent on actions of its competitors.</p> <p>In the long run, if more firms enter the market and Walmart loses its market share, the market structure might transform into a monopolistically competitive one where there is a significantly lower degree of mutual interdependence. In this scenario, the decisions and strategies of Walmart would be more affected by business risks and uncertainty rather than actions of its many rivals.</p>
Situation in the economy (actions by other economic agents, i.e. government)	<p>If the government implements policies to create a favourable business environment, the effectiveness of the policies may determine whether Walmart is still concerned about business risks and uncertainty. If the policies are effective, Walmart will then be more concerned about the actions of its rivals.</p> <p>Furthermore, rivals in the market are also simultaneously affected by events affecting Walmart. Hence, Walmart may be more concerned about how rivals are reacting to the events and the indirect effects on their profits, rather than how they may be directly affected.</p>

	Knowledge, Application/Understanding and Analysis	
L3	For a well-developed, well-balanced answer with at least three points of argument. Scope of points should be demonstrated in terms of both revenue and cost considerations as well as different decisions and strategies. Arguments should be contextualised to the given market.	8 – 10
L2	For an underdeveloped, balanced answer that consider at least one argument each for how competitor's action and business risks and uncertainty affects a firm's decision and strategy.	5 – 7
L1	For an answer that lacks scope and depth. There may be multiple conceptual errors.	1 – 4
E3	For an answer that arrives at an analytically well-reasoned judgement	4 – 5
E2	For an answer that makes some attempt at a judgement	2 – 3
E1	For an answer that gives an unsupported statement	1

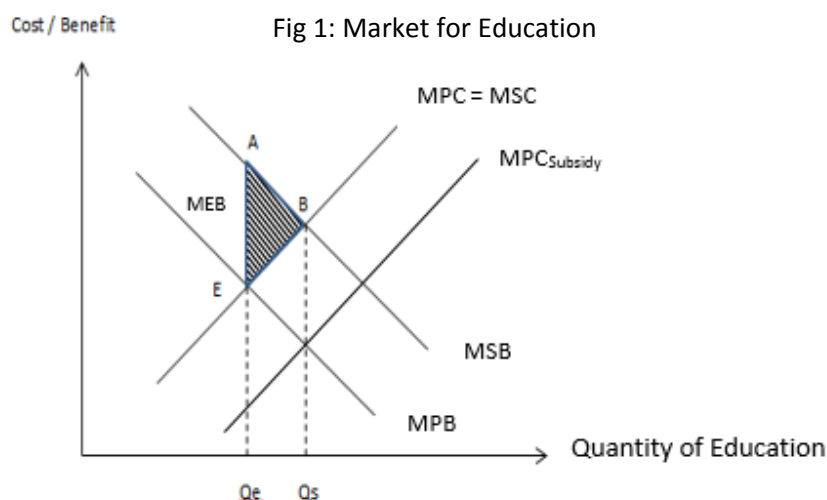
Essay 3

Governments typically intervene in the market for education in several ways.

Explain why government intervention is needed in the market for education, and discuss whether such intervention will help a government meet its microeconomic objectives. [25]

Government intervention is needed in the market for education as it is considered a merit good. Merit goods are deemed socially desirable by the government but under-consumed due to the presence of positive externality and imperfect information, leading to inefficient allocation of resources which is one of the government's microeconomic objectives. In addition, government intervention is needed as there may be inequitable distribution of resources in the market for education.

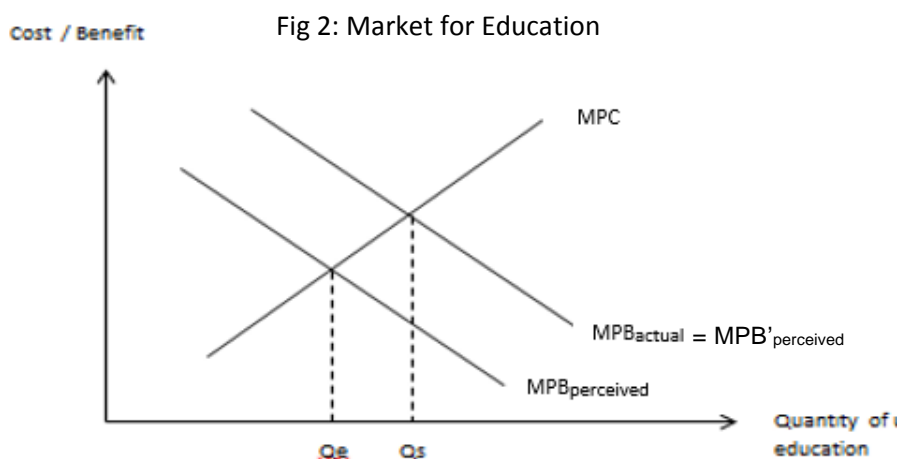
The private costs of education include tuition fees and the opportunity cost of not earning income from working while the private benefits include the gain of knowledge, better employment opportunities and potential higher wages in future from a higher level of education. In addition, education exhibits positive externalities from consumption such as the transfer of knowledge and skills to co-workers which can then help to increase their productivity and possibly income too. The employers could also profit from the increased productivity due to the more educated and skilled labour. This causes social benefits to be higher than private benefits and is illustrated by the divergence between MSB and MPB in the diagram. In deciding how much education to consume, the rational and self-interested consumer will not consider the positive externalities and only weigh his marginal private cost (MPC) against the marginal private benefit (MPB) and consume to the point where $MPC = MPB$ at Q_e . However, the socially optimal level of consumption is where marginal social cost (MSC) = marginal social benefit (MSB) at Q_s .



There is thus under-consumption of education by the amount $Q_e Q_s$. At Q_e , MSB is greater than MSC. Society values an additional unit of education more than what it would cost society to consume it and there is deadweight loss by the area ABE. Society could be made better off if consumption of education were increased to the socially optimal level at Q_s .

Besides the presence of positive externality, there is also imperfect information. Consumers under-estimate future returns on higher education due to incomplete knowledge about the full longer-term benefits from education. Knowledge of private benefits is an ongoing learning process, and it is especially difficult to realise the long term gains from education at

an early stage. Moreover, calculating future earnings is usually based on past data and may require technical knowledge that is complex. This causes the actual private benefits to be higher than the perceived private benefits and is illustrated by the divergence between MPB_{actual} and $MPB_{\text{perceived}}$ in Fig 2. Again, in deciding how much education to consume, the rational and self-interested consumer will consume to the point where $MPC = MPB_{\text{perceived}}$ at Q_e . However, the optimal level of consumption is where $MPC = MPB_{\text{actual}}$ at Q_s . There is thus under-consumption of education by the amount $Q_e Q_s$. At Q_e , MPB is greater than MPC , resulting again in deadweight loss.



Furthermore, there may be inequitable allocation of resources in the market for education. Since the free market responds to “dollar votes”, those with higher incomes are likely to determine which goods and services will be produced, as resources are allocated in order to satisfy the consumers’ effective demand (i.e. both willingness and ability to buy). In this case, resources would inevitably be channelled to the production of education demanded by consumers with higher income. Education may thus be priced out of reach of the lower income groups due to the lack of ability to pay. In other words, those who are unable to afford education may not get a chance to attend school.

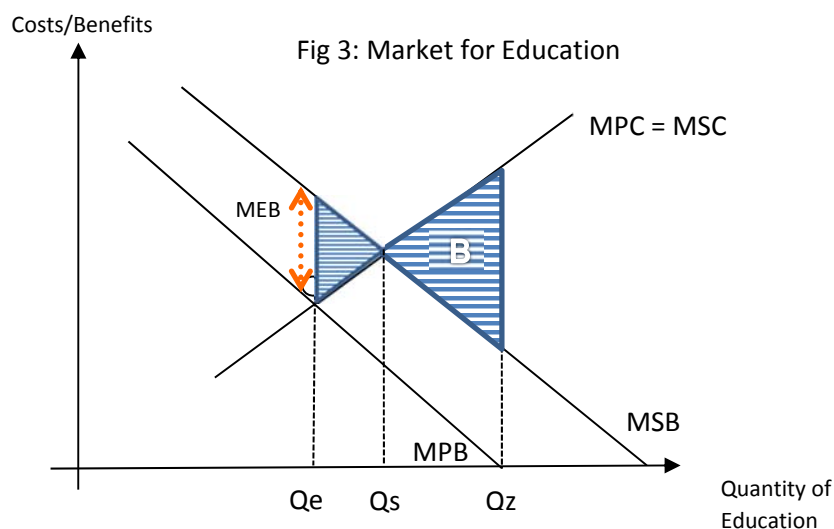
From a socio-political viewpoint, it is extremely important to achieve an equitable distribution of income in the economy as it improves the non-material standard of living of the country. As education is perceived to be a key instrument of achieving this distributive function in the long run, governments try to ensure that it remains affordable to the poorer sections of the economy. Typically the governments subsidise education in order to let it enable redistribute resources in the long run, expecting that the poor would get richer empowered by the knowledge achieved through education.

To better achieve the microeconomic objectives of efficiency and equity, governments typically intervene in the market for education in several ways. First, governments can provide a subsidy equal to the marginal external benefit (MEB) at Q_s , lowering the cost of education, as illustrated by a rightward shift of the MPC curve from MPC to MPC_{Subsidy} . The subsidy causes consumers to take into consideration the positive externality and will consume where $MPB = MPC_{\text{Subsidy}}$. This allows consumption to then be at the socially optimal level, Q_s , eliminating the deadweight loss previously due to under-consumption. One example of such an intervention is the government’s yearly contribution to students’ Edusave accounts which they can use to pay for their school fees or the Financial Assistance Scheme

where school fees and miscellaneous fees for students from lower-income households are waived and textbooks are provided free by the government.

Such a subsidy not only helps the government to meet the microeconomic objective of efficiency but also allows the government to achieve a more equitable distribution of resources in the economy. This is because subsidies make education more affordable, thus children from low income families are better able to gain access to it. If subsidies were not provided, children from lower income households may not receive education and are employed in lower-paying jobs which do not require much expertise while those from high-income families receive education and subsequently are able to land better paying jobs due to their higher level of skills and knowledge. The income gap between the rich and the poor would then likely widen over time, worsening inequity.

However, it may be difficult to provide the right amount of subsidies as there may not be sufficient information to accurately assess the value of the positive externality. If the subsidy provided is too little, the market failure will only be partially corrected while over-subsidising may instead result in greater deadweight loss. For example, if the amount of positive externality is not significant but governments fully subsidise education such that it is provided free at Q_z , it will cause the area of deadweight loss to be larger at B as compared to the original area A as shown in Fig 3.



Moreover, providing subsidies to consumers may put a strain on the government's budget or it may require resources to be diverted from other areas, incurring opportunity cost.

To tackle the other cause of market failure, that is imperfect information, the government can provide information to better help consumers understand the true benefits of education. More information such as the average starting pay and the qualifications required for various jobs can be provided, for example, through online portals like mycareersfuture.sg. With more information, the consumers will be more aware of the actual private benefits from education, illustrated by the rightward shift of the MPB curve from $MPB_{\text{perceived}}$ to MPB_{actual} in Fig 2. Consumers will then maximise their utility by consuming where $MPB_{\text{actual}} = MPC$ and this is where Q_s is, therefore reaching the optimal level of consumption.

Provision of information merely provides market participants with better information but does not artificially distort the workings of the free market. This is favourable, especially

from the perspective of proponents of the free market. However, the outcome is uncertain. This is because people may not even bother to access the information in the first place and even if they do, they may already have a pre-existing mindset on the benefits of education and the information provided may still not change their views. If so, the intervention will not help the government meet its microeconomic objective of efficiency.

Another common way for the government to intervene is through rules and regulations. For example, under the Compulsory Education Act in Singapore, it is compulsory for children born after 1 January 1996 to receive a minimum of six years of primary education. A government agency checks for compliance and parents who do not comply with the legislation are fined. This ensures that consumption of education is near, if not, at the socially optimal level.

The advantage of such an intervention is that it is simple and clear to follow and is relatively straightforward to administer. However, for it to be effective, there must be inspections and the penalty must be sufficiently harsh to have a deterrent effect. In large countries, enforcement measures can be costly. Moreover, rules and regulations may be more difficult to change when marginal external costs or benefits change given the need for legislative approval. Thus, consumption may not be at the socially optimal level when external benefits change.

In conclusion, whether such intervention will help a government meet its microeconomic objectives depends on various factors such as the amount of information the government has and the budget position. In developing countries, data collection is not as advanced or comprehensive and governments may not be able to accurately determine the amount of subsidies to be given, thus deadweight loss or market failure still remains.

Also, if a country has a budget deficit or public debt, it may be difficult for the government to be able to provide the subsidies that are necessary for the socially optimal level of consumption to be reached. If there are more urgent issues that the economy is facing, the government may decide to allocate more resources in those areas rather than subsidising education, causing both the microeconomic objectives not to be met. Nevertheless, it is more likely that intervention in the market for education can help to reduce the amount of inequity and allocative inefficiency though they may not be completely eliminated.

	Knowledge, Application/Understanding and Analysis	
L3	For an answer that gives a detailed and analytic explanation of why government intervention is needed in the market for education and whether government intervention will help to meet its microeconomic objectives.	15-20
L2	For an answer that gives an underdeveloped descriptive explanation of why government intervention is needed in the market for education and whether government intervention will help to meet its microeconomic objectives.	9-14
L1	For an answer that shows some knowledge of the reasons why government intervention is needed in the market for education and whether government intervention will help to meet its microeconomic objectives. Contains conceptual errors.	1-8

E3	For an answer that arrives at an analytically well-reasoned judgement about whether government intervention will help to meet its microeconomic objectives	4 – 5
E2	For an answer that makes some attempt at a judgement about whether government intervention will help to meet its microeconomic objectives	2 – 3
E1	For an answer that gives an unsupported statement about whether government intervention will help to meet its microeconomic objectives	1

Essay 4

The central bank of the US has raised interest rates from 0.1% in 2015 to 0.7% in 2016.

Source: The Federal Reserve, 2016

Explain the internal and external impacts of the increase in interest rates by the US central bank on the Singapore economy and discuss the view that fiscal policy is the best policy for Singapore to address the possible adverse impacts. [25]

A rise in interest rates would increase the cost of borrowing and the opportunity cost of consumption as returns from savings are higher. Consumers would thus prefer to save and reduce their consumption expenditure. Firms would find that with the higher cost of borrowing and with the rate of returns remaining constant, the number of profitable projects would decrease and thus lower their investment expenditure. With a fall in both autonomous consumption and investment expenditure, there will be a fall in aggregate demand, causing a multiplied decrease in real national income in the US via the multiplier effect.

The fall in the US real national income means that there is a decrease in purchasing power and a consequent decrease in import demand. As US is Singapore's main trading partner, the decrease in demand for Singapore's exports from the US will cause a substantial decrease in our export revenue. Assuming that import expenditure of Singapore remains unchanged, this will result in a decrease in net exports, decreasing aggregate demand (AD). There will thus be a multiplied decrease in Singapore's real national income. The decrease in production also results in a decrease in the derived demand for labour, leading to a rise in demand deficient unemployment.

Also the fall in national income in the US may lead to a fall in expectations of future growth. As the US is the largest economy in the world, there might be a fall in FDI to Singapore as foreign investors are likely to invest in Singapore to produce goods and services for overseas markets. The fall in FDI might result in a fall in I, and the subsequent fall in AD, fall in real national income and increase in unemployment. Also, a fall in I can lead to a fall in productivity and thus productive capacity, hindering potential growth in Singapore.

The rise in interest rates could also attract short term investments into the US. There is thus an inflow of hot money into US as investors seek expect higher rates of returns. This will increase the demand for US currency, causing an appreciation of the US dollar (US\$). In Singapore, however, there may be hot money outflow if interest rates are relatively lower. This would cause a worsening of the capital and financial account in Singapore. Coupled with the decrease in net exports that worsens the current account, the BOP position of Singapore would worsen in the short run.

In addition, with an increase in short term capital outflow from Singapore, the supply of the Singapore dollar (SGD) would increase. This will result in a depreciation of the SGD, increasing the domestic price of imported raw materials and thus cost of production, leading to a fall in the SRAS and a rise in imported inflation.

In summary, the adverse impacts of an increase in US's interest rates could be a fall in (X-M) and I, causing AD to fall and Singapore's real national income to fall by a multiplied amount. There could also be an increase in unemployment as well as an increase in imported inflation.

To address the impact of a fall in net exports, Singapore can engage in expansionary fiscal policy to stimulate economic activity and reduce demand-deficient unemployment. For example, the Singapore government can bring forward the building of economic and social infrastructure. With an increase in government expenditure (G), AD will increase. Additionally, consumption (C) and investment expenditure (I) can be boosted through the reduction of personal income tax or corporate tax rates. When income tax rates are reduced, households would have more disposable income to increase their consumption expenditure. When corporate tax rates are reduced, firms would enjoy higher after-tax profits and be more willing and able to invest on new capital goods. With the increase in C, I and G, the fall in (X-M) and I due to the increase in interest rates could be offset, thus alleviating the adverse impacts on real national income and employment.

Expansionary fiscal policy can work relatively quickly in boosting growth and employment. Furthermore, Singapore is unlikely to suffer from the crowding out effect as the Singapore government has adopted a prudent approach to its fiscal policy, consistently keeping the budget balanced, achieving modest budget surpluses in normal years, and building up reserves over time.

However, there are limitations to the use of fiscal policy. The size of the multiplier is likely to be small. This is because Singapore lacks natural resources and is heavily dependent on imported raw materials, intermediate goods and final products. As such, its marginal propensity to import is high. In addition, Singapore has compulsory savings in the form of the Central Provident Fund and the marginal propensity to save is also high. Since there are large leakages out of the circular flow of income, the impact of fiscal policy on real national income is smaller.

To address the adverse impact of imported inflation, exchange rate policy may be a better policy than fiscal policy. A gradual and modest appreciation of the SGD will directly help to lower the domestic price of imported raw materials and reduce the cost of production. This increases the SRAS and addresses the root cause of the problem.

However, a stronger Singapore dollar would result in an increase in the foreign price of exports and a fall in the domestic price of imports. In the long run, firms are no longer bounded by contracts and are able to switch to cheaper alternatives. The Marshall-Lerner condition is thus likely to be satisfied, and an appreciation will lead to a fall in net exports which will aggravate the problem of a decline in exports. Therefore, there is a need for Singapore to also adopt supply side policies to boost its export competitiveness.

As a long term policy, supply side policies are better than fiscal and monetary policies as it helps to enhance the price and non-price competitiveness of exports and also increase the productive capacity of Singapore. This can help Singapore to achieve sustained, non-inflationary growth. Examples include tax credits for R&D and subsidies for upskilling. In Singapore, the Workforce Development Agency pays up to 90% of skills upgrading course fees. Such programmes increase the level of skill mastery, increasing the productivity and quality of labour. The fall in unit cost of labour will cause a fall in the price of exports, making exports more price competitive. Also, R&D subsidies can create more incentives for firms to engage in innovation, improving the non-price competitiveness of Singapore's exports', thereby increasing the demand for Singapore's exports and increasing net exports.

However, supply side policies have limitations too. Supply-side policies tend to require a longer time to take effect and the outcomes are uncertain. For example, workers need to embrace the concept of lifelong learning before they are willing to embark on training programmes to enhance their employability.

In conclusion, fiscal policy may be the best policy in terms of reducing the adverse impact of a fall in real national income and an increase in unemployment but not the best in ensuring price stability. Fiscal policy as a demand-management policy and monetary policy can be adopted in the short run to have a more immediate impact on AD and/or SRAS but in the long run, supply side policies are still needed. There is thus no single best policy to address the various possible adverse impacts brought about by the increase in US interest rates. According to Tinbergen's rule, the number of policies should be at least equal to the number of economic objectives. Therefore, both demand management and supply-side policies should be adopted to complement one another in achieving the different macroeconomic objectives.

However, we should also note that the increase in interest rates in the US may not affect Singapore much as it is an interest-rate taker. Domestic interest rates in Singapore will largely follow US interest rates and there is thus not much difference between interest rates in Singapore and US to cause a change in capital flow or exchange rates. Also, the interest rate hike in the US is likely to be due to the US central bank preventing demand pull inflation in US due to stronger economic growth. Thus the hike in the interest rates may not even have adverse impacts on the Singapore economy.

Regardless, as a small country with few natural resources, it is still critical that Singapore continuously innovates to maintain a competitive edge over other countries and sustain its economic growth regardless of changes occurring in other countries.

Note: Students who explained that the adverse impact is a fall in (X-M) but no change in exchange rate can suggest reducing the rate of appreciation or zero appreciation to address the adverse impacts of a rise in US interest rates.

	Knowledge, Application/Understanding and Analysis	
L3	A comprehensive and detailed answer that provides an explanation on the internal and external impacts on the Singapore economy with a rise in US interest rates. Provides a balanced discussion, using appropriate tools of analysis and diagrams to discuss a range of policies that address the adverse impacts on the SG economy.	15-20
L2	An answer that provides a balanced but under-developed discussion on the internal and external impacts on the Singapore economy with a rise in US interest rates. A range of appropriate policies to address the adverse impacts on the SG economy are discussed.	9-14
L1	An answer that is mostly descriptive, with some inaccuracies and is not in the context of US and Singapore.	1-8

E3	An answer that arrives at an analytically well-reasoned judgement on whether fiscal policy is the best policy to address the adverse impacts on the SG economy.	4 – 5
E2	Some attempt at a judgement on whether fiscal policy is the best policy to address the adverse impacts on the SG economy.	2 – 3
E1	For an unexplained judgement, or one that is not supported by economic analysis.	1

Essay 5

China has long been widely touted as a nation of savers. Credit Suisse pegs China's savings rate at 32% of household income.

Source: Nikkei Asian Review, 2018

(a) Explain the factors that cause household savings to be high. [10]

Savings is the part of disposable income that is not spent. Higher household savings will cause expenditure on consumption to fall, thus reducing AD. Factors affecting savings are largely similar to factors affecting the level of consumption.

Autonomous savings

Interest rates

Interest rate refers to the rate at which a deposit (i.e. savings) with the bank increases over time. Interest is regarded as the reward for savings. A high interest rate will allow households to earn more interest from savings, i.e. the reward for savings increases. This will incentivise people to save, causing household savings to be high.

Expectations

Households' expectations about the economic outlook play a crucial role in their decision to save. If households are expecting an economic downturn in future, they are likely to increase the level of savings since savings provide a precautionary buffer against possible job losses or fall in income levels in future. This would cause household savings to be high.

If households expect a lower or negative rate of inflation in future, they will save more now and postpone their consumption expenditure till prices are lower. This would also cause household savings to be high.

Preference of households

The level of savings can be dependent on the mindset and the lifestyles of households in the economy. Saving habits are influenced by factors such as culture, for e.g. Asians value thrift and responsibility and will seek to save more, especially to ensure that they have enough for retirement or to be able to leave assets to their children as a bequest. This would cause household savings to be high.

Government policies

There are also government policies which affects the community's attitude in savings. For example, in Singapore, there is a national savings scheme whereby all working individuals have to make compulsory monthly contributions to the Central Provident Fund (CPF). CPF savings ensures that the individuals have sufficient savings for retirement as well as medical expenses. This compulsory aspect of savings has allowed Singapore to have one of the highest saving rates in the world.

Induced savings

Induced savings changes in response to changes in the level of national income and is positively related to it. When income levels are high, households are likely to be able to save a more of their income after consumption, thereby causing household savings to be high.

	Knowledge, Application/Understanding and Analysis	
L3	For an answer that uses appropriate analysis to explain the various factors affecting savings rates	8 – 10
L2	A descriptive explanation of key factors affecting savings rates	5 – 7
L1	Knowledge of key factors affecting savings and/or unexplained/ answer contains some conceptual errors	1 – 4

(b) Discuss whether higher household savings rates are desirable for an economy. [15]**Introduction**

- Increase in savings implies fall in consumption
- Desirability measured in terms of achieving the macroeconomic objectives

Undesirable**Desirable****Internal impact on Economic Growth, Employment and Price Stability**

Assuming economy operating below full employment level:

Short term impact:

- Paradox of thrift: Increase in S causes C to fall → AD will fall and RNO will fall by multiplied amount → impedes economic growth or slows down economic recovery.
- Since firms produce less, derived demand for labour falls → increase in demand deficient unemployment
- For countries facing deflation like Japan, fall in AD will cause GPL to fall. If this causes consumers to further lower C due to expectations of lower prices, AD will continue to fall causing the economy to go on a deflationary spiral.

Less effective demand management policies:

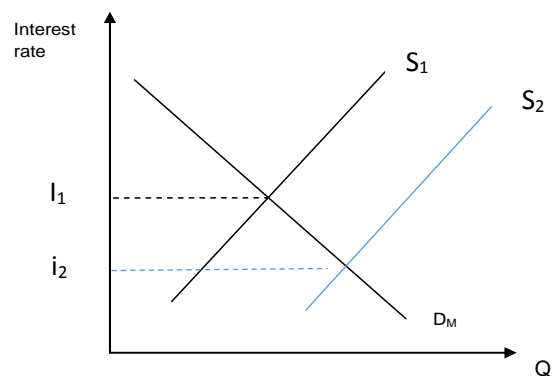
- Since APS is high, MPS may also be high, causing k to be relatively small.
- Therefore, impact of expansionary FP such as increase in G to stimulate real national income will be limited.

Assuming economy operating near or at full employment level:

- Fall in AD can help to dampen demand pull inflation.

Long Term Impact:

- Supply of loanable funds decreases from S_1 to S_2 . This helps to keep interest rates low which leads to more investment.



- In the short run, investment helps to increase real national income and actual growth.
- In the long run, investment leads to higher productivity and productive capacity, increasing LRAS and achieving potential growth.
- Overall, prices are kept stable and low rate of unemployment is attained.

External impact on Balance of Payments and Exchange rate**Capital and financial account**

- As supply of loanable funds increases, interest rates fall. This results in the outflow of hot money as the rate of returns is now lower. Capital and financial account worsens.

Current account

- Consumers may reduce expenditure on imported goods, trade balance and thus current account improves, ceteris paribus.

Overall impact on BOP depends on the relative change in both accounts

- If there is a net currency outflow, the BOP position will deteriorate and the exchange rate will also depreciate. This may worsen the external stability of the economy.

Current Standard of living (SOL)	Future Standard of living (SOL)
<ul style="list-style-type: none"> Current SOL refers to the amount of goods and services that individuals have available for current consumption. Lower consumption as a result of higher savings rates will worsen current material SOL. 	<ul style="list-style-type: none"> Future SOL refers to the amount of goods and services available for future consumption. Higher savings rate allows higher expenditure on investment which can help to increase the productive capacity of the economy. With an increase in the ability to produce more goods and services in future, consumption can increase by more in the future, improving future material SOL.
Evaluation <p>[Weigh] According to the Classical school of thought, savings is beneficial to help economies achieve growth and its other macroeconomic objectives. However, based on the Keynesian school of thought, savings will actually slow down economic growth. This is detrimental to countries especially in the globalised economy in recent years. As countries decouple and are less dependent on external sources for growth, they will need to stimulate domestic consumption and investment more.</p> <p>[Recommend] While high savings rate can bring about negative impacts, government may also implement policies to address the situation in the economy. Hence, the overall impact may not be undesirable, depending on the nature of the economy as well as its current situation.</p>	

	Knowledge, Application/Understanding and Analysis	
L3	For an answer using analysis to give a clear analysis of the costs and benefits of higher household savings for an economy	8 – 10
L2	For an answer giving a largely descriptive explanation of the costs and benefits of higher household savings for an economy	5 – 7
L1	For an answer that shows knowledge of the costs and benefits of higher household savings. One-sided answer on either the costs or benefits. Largely unexplained knowledge of the impact of higher savings for an economy.	1 – 4
E3	For an answer that arrives at an analytical well-reasoned judgement	4 – 5
E2	For an answer that makes some attempt at a judgement	2 – 3
E1	For an answer that gives an unsupported statement	1

Essay 6

An economist stated ‘Globalisation affects all corners of the world, yet requires more government control, not less’.

(a) Explain how globalisation impacts a country’s balance of payments position. [10]

	Current Account	Capital and Financial Account
Increased trade flows	<ul style="list-style-type: none"> Reduction of trade barriers → countries can specialise based on their area of comparative advantage, i.e. produce goods that they incur lower opportunity cost in → this enables them to charge lower prices → assuming $PED > 1$, the lower prices will result in a more than proportionate increase in quantity demanded → higher export revenue (X) → improvement in g/s balance on the current account Greater contestability → increased threat of potential competition from imported g/s → incentive for incumbent firms to innovate → improvement in price and non-price competitiveness <ul style="list-style-type: none"> Improvement in price competitiveness, with $PED > 1$ as analysed earlier, will increase X → improvement in g/s balance on the current account Improvement in non-price competitiveness will increase the demand for exports → increase X → improvement in g/s balance on the current account If higher demand for exports is not met by an increase in productive capacity in export-related industries → compete for increasingly scarce factors of production → rise in demand-pull inflation → worsen price competitiveness of exports in the longer term → may limit improvement in g/s balance on the current account Access to cheaper imported raw materials → improve export competitiveness → improvement in the current account 	<ul style="list-style-type: none"> Heightened growth potential with the larger export market → healthy business prospects → may attract FDI (long-term capital) inflow to capitalise on the opportunities → improvement of the capital and financial account
Increased labour flows	<ul style="list-style-type: none"> Labour inflow from foreign countries to tap on work opportunities → migrant remittances of earnings back to home country → outflow in the secondary 	<ul style="list-style-type: none"> Labour inflow → rise in SS of labour → lowers cost of production → attractive to FDI → improvement of the

	income balance on the current account → worsening of the current account	capital and financial account <ul style="list-style-type: none"> Labour outflow (i.e., brain drain) → risk being a disincentive to foreign firms to locate in the country → worsening of the capital and financial account
Increased capital flows	<ul style="list-style-type: none"> Repatriation of profits, interest and rent following capital outflow/inflow may improve/worsen the primary income balance on the current account 	<ul style="list-style-type: none"> Greater “hot money” flows → e.g., increase in interest rate in a country attracts short-term capital inflows → improve the capital and financial account Entry of foreign firms due to good economic outlook in a country → inflow of long-term capital (FDI) into the country → direct improvement of the capital and financial account

	Knowledge, Application/Understanding and Analysis	
L3	For a <u>well-developed</u> answer with <u>at least three</u> impacts on <u>both</u> current and capital and financial accounts, and consideration of <u>all</u> features of globalisation (i.e., increased trade, labour and capital flows).	8 – 10
L2	For an <u>underdeveloped</u> answer that consider <u>at least two</u> impacts on <u>both</u> current and capital and financial accounts, and <u>some</u> consideration of the features of globalisation (i.e., increased trade, labour and capital flows).	5 – 7
L1	For an answer that lacks scope and depth, or is a mere listing of points. There may be multiple major conceptual errors.	1 – 4

(b) Discuss the view that the role of the Singapore government is more important with the rise of globalisation. [15]

Introduction:

- Government functions → allocative, stabilisation, distributive, and growth functions

P1: Yes, more important

- Government has a role to mitigate the negative effects of globalisation:
 - Stabilisation role
 - Issue: vulnerability to external shocks due to dependence on foreign markets OR risk of structural unemployment with changing CA
 - Appropriate policy: Singapore continually expands and diversifies its network of trading partners OR SkillsFuture to encourage workers to retrain and reskill
 - Distributive role
 - Issue: widening inequity between higher-skilled and lower-skilled workers, possibly due to changing CA (e.g., shift from low-end to high-end manufacturing) or relocation/offshoring of production processes
 - Appropriate policy: redistributive policies, e.g., progressive income tax structure, GST vouchers tiered by income level
 - Allocative role
 - Issue: generation of negative externalities, e.g., problem gambling with the establishment of Integrated Resorts by foreign companies
 - Appropriate policy: legislation/tax for Singaporeans, public education efforts
- Government has a role to further augment the positive effects of globalisation:
 - Growth role
 - Issue: benefits of globalisation, including higher growth prospects from an expanded (external) market, higher potential growth from FDI inflow
 - Appropriate policy: SG to sign more bilateral, regional, and multilateral FTAs, competitive corporate tax rates in SG

P2: No, not more important

- Globalisation may have taken over some of the roles that governments traditionally play
 - E.g., previously, governments need to regulate markets closely to ensure efficiency → these days, increased competition/contestability as a result of globalisation is enough to keep incumbents on their toes and incentivise innovation (e.g., entrance of foreign banks and telco players into SG) → higher efficiency, improved export competitiveness, sustained growth, etc → government intervention no longer needed
- Globalisation may have helped to overcome some inherent challenges that the SG government was trying to address
 - Tight labour market in SG → due to falling birth rates and aging population → may impact potential growth negatively → SG was trying to address through encouraging more births and raising retirement age → with globalisation,

- greater labour mobility across borders → rise in quantity and possible also quality of labour for SG → increase in SG's LRAS → less need for government to step in to manage
- Small domestic market in SG → globalisation has enabled SG firms to tap on the larger global export market + enabled FDI inflow to grow Singapore's productive capacity → actual (growth in AD) and potential growth (growth in LRAS) → less need for government to step in to stimulate growth
- Self-correction of problems by the free market
 - E.g., slow growth → weak economic outlook for local households and firms → local households and firms may withhold spending → AD may fall → GPL fall → however, this may mean an improvement in export price competitiveness → with globalisation, more foreigners may purchase the cheaper SG exports → *ceteris paribus*, X and hence AD may rise → “automatic” correction of slow growth → no need for government intervention
- Government intervention may cause more harm than good
 - E.g., protectionism (see below; can also be an EV point)
 - E.g., channelling resources to “combat” the effects of globalisation, when the resources could be better spent in other sectors

Conclusion/EV:

- Stand: Multiple functions for government → government's role has not been reduced → in fact, its role may be even more important/prominent than before
- Justify: Adapting to globalisation does not occur naturally → governments still need to be present to create conditions for successful integration with globalisation → e.g., need to create conditions for contestability to take place (e.g., granting more licences for foreign banks to operate in SG, granting of telco licence to Australian-based company TPG), need to help SMEs reach out globally (e.g., through Enterprise Singapore (formerly IE Singapore))
- A: Sometimes, by intervening, more harm than good is done
 - E.g., government may intervene in response to globalisation through erecting of trade barriers → briefly give an example of protectionism and negative consequences
- S: Importance of government intervention depends on the effects of globalisation
 - Where the effects of globalisation are mostly positive, it is less important for the government to intervene
 - If negative effects are more significant, the government will need to step in with mitigating measures

Note: There are many possible points of argument for this question, and the points given above are non-exhaustive. You also do not need all the above points to score the full range of marks.

	Knowledge, Application/Understanding and Analysis	
L3	For a <u>well-developed, well-balanced</u> answer with <u>at least three</u> points of argument.	8 – 10
L2	For an <u>underdeveloped, balanced</u> answer that consider <u>at least two</u> points of argument.	5 – 7
L1	For an answer that lacks scope and depth. There may be multiple major conceptual errors.	1 – 4
E3	For an answer that arrives at an analytically well-reasoned judgement	4 – 5
E2	For an answer that makes some attempt at a judgement	2 – 3
E1	For an answer that gives an unsupported statement	1