Suggested Answers for H3 prelim paper CSQ1

(a) Explain, with reference to examples from extracts, compare the characteristics between a quasi-public good and a private good. [6]

Examples	Rivalrous (difference)	Excludable (similarity)
City Parks and park connectors as a quasi-public good	When not congested, city parks are deemed to **be non rivalrous** as when person experience the benefit of brisk walking in the park, it will not diminish another of the same amount of experience. .	It is possible to **exclude** some parts of the park to the public. For example, some areas of the park connectors can be excluded from the public when it is under renovation, construction.
Healthcare services as a private good	It was mentioned in Extract 3 that doctors "order more tests, procedures and surgeries than necessary" and that this is determinantal to the system at large. Healthcare service is rivalrous as consumption of the service by one patient naturally reduces the quantity or service available for the next patient. For example, if a patient is undergoing a surgery in an operating theatre or is being seen to by a doctor for a medical procedure, then another patient would have to wait and would not be able to avail themselves of that service. This why ordering more tests, procedures and surgeries than necessary is determinantal to the healthcare system at large as it reduces the availability and/or the quality of healthcare service to other patients.	Healthcare services are excludable as one needs to pay the bills in order to benefit from the service. Those who can't afford to pay will be excluded from the healthcare provision/service.

(b) Discuss the extent to which traditional economics is useful in explaining how people decide whether to exercise. [8]

<table>
<tr><td colspan="2">Introduction : Traditional Economics – Use Cost and Benefit Analysis / Marginalist principle to decide on whether to exercise.</td></tr>
<tr><td>Traditional Economics is useful</td><td>Limitations of TE.</td></tr>
<tr><td>
Benefits of exercising:
The monetary value of getting fitter and healthier. Extract 2 states that exercise is known to significantly improve cardiovascular health, blood pressure, and cholesterol and to reduce the risk of developing diseases such as diabetes and osteoporosis (Myers 2003). As such consumer will incur less medical costs and can pay less insurance premium given good health conditions. Moreover, this will improve the health and productivity which will lead to consumers getting better jobs and attaining higher wages.

Costs of exercising:
Explicit costs: cost of gym entrance fee, feeling tired from workout.
Implicit costs: opportunity cost of exercise is the next best alternative such as gain knowledge from reading/entertainment from TV (extract 2).

MB>MC
If the additional benefits of consuming one more unit of exercise is greater than the additional cost of doing it, a person will decide to exercise till a point MB=MC.

MB<MC
However, if the additional benefits of consuming one more unit of exercise is lesser than the additional cost of consuming the exercise, a person will decide not to exercise.

Illustrate using a diagram:
</td><td>

Difficult to decide calculating MB
whether exercise is the main factor to prevent the diseases mentioned. Some people are more prone to developing such diseases while others are less so might not benefit from exercises as much as others.
Difficult to calculating MC
However, in reality, people often display bounded will-power. This term refers to the fact that economic agents often take actions which are against their long-term interest. Bounded will-power is related to problems such as procrastination.
For example, it is likely that some of your peers claimed that they would like to exercise one week from now when you first posed the question to them. However, when you repeat the questions to them one week later, some of them are likely to change their minds and decide not to exercise today. This is time-inconsistent behaviour as they are unable to stick to their plan despite being aware that exercising is important to maintain good long-term health.
With reference to the question above, we can provide a numerical example to enhance your understanding. In standard economic models, it is assumed that individuals discount future benefits (i.e., prefer instant gratification). Assume that the discount rate for future benefit is ½.
Suppose exercise imposes a current cost of 6 utils due to the immediate effort required to do the activity and achieves a delayed benefit of 8 utils due to the health improvements in the future. In our simplified model, let us assume that the discount factor for future benefits and costs is ½.

When will you want to exercise?

Exercise today: $-6 + \frac{1}{2}[8] = -2$
Exercise tomorrow: $\frac{1}{2}[-6] + \frac{1}{2}[8] = +1$

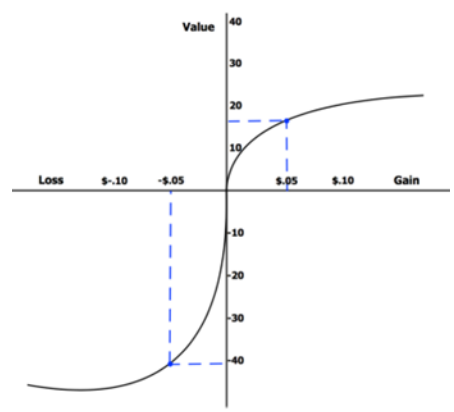
</td></tr>
</table>

- You would like to relax today and exercise tomorrow since the utility you gain from exercising tomorrow is greater than the utility gained from exercising today.
- But what happens when tomorrow comes? Will you follow through with your plan? No, you will not. You will procrastinate. You will not follow through without commitment. That is, when tomorrow comes, you will decide to put off exercising again.

Extract 2 mentioned ‘form[ing] an exercise habit that would make an individual feel a sense of loss if he or she stops exercising.’

- Loss aversion could also provide a useful alternative approach to analyse decision making under risk such as the decision to exercise.

As shown in the loss – gain asymmetry diagram (below: we perceived the value of loss of not exercising which is -$0.05 more than the value of the gain of not exercising which is $0.05. This is likely a case for people who have a habit of exercise such that the endowment effect will kick in, sense of guilt. This endowment effect could bias the outcome of cost benefit analysis taken by the person when deciding whether to continue to exercise even when MC is already more than MB.



EV

- The extent of the traditional economics on the decision making to exercise or not depends on various factors:
- Feasibility - Difficulties to calculate the MC and MB
- TE although useful is insufficient to help a person decide on whether to exercise, one should also take into considerations the other factors mentioned above.

c) With reference to Extract 4, explain why the Singapore government intervenes with Medishield in the market for health insurance **[6]**

There are two main reasons why the Singapore government intervenes in the market for health insurance:

a) Adverse selection
b) Moral hazard

Adverse selection in insurance occurs when the people who take insurance are those with the highest risk. For example, an insurance company's market research states that the average person requires $200 of medical treatment per year. The company then sets its yearly premium at $250, to cover the expected cost of medical treatment as well as $50 for the company to cover the administrative costs of providing insurance and to make a profit. However, it is probable that the people who take out insurance are those most likely to fall sick: those whose families have a history of illness, those in jobs hazardous to health. On average, these people may require $500 of medical treatment. The company would soon make a loss, and would need to raise the premiums. This would price out the majority of people who are of average health and deprive them of a chance of reasonably priced medical insurance. Medishield avoids this problem by ensuring that every Singaporean is include. This allows for risk-pooling and ensures that the insurance takers will not just be dominated by high risk individuals. The average premium can then be lower. This allows Medishield to "an affordable catastrophic medical insurance scheme"

Consumer Moral hazard in insurance: In the insurance market, moral hazard occurs when the party that is insured (consumer) can affect the probability or magnitude of the event that triggers payment.

- When an insurance company offers protection to a customer, it does not know whether the customer will behave responsibly.
- This is because the customer has more information than the insurer about his own actions **after** the transaction. For example, in the case of the initial zero co-payment policy required under Integrated Shield Plans (IPs) (Extract 4) after purchasing such health insurance, an individual might have the incentive to pursue an unhealthy lifestyle of excessive smoking and alcohol consumption.
- This contributed to the "over-consumption, over-servicing and over-charging by doctors and policyholders which in turn impacts healthcare costs" (Extract 4).
- Insurance companies might suffer losses as health insurance claims rise. Being profit motivated, these insurance companies will have less incentive to supply such insurance resulting in a missing market. In the society perspective, there is under allocation of resources.
- Extract 4 clearly reflected that Moral Hazard is indeed a reason for government intervention in Singapore as the government eventually intervene in the market by increasing the zero copayment to 5% copayment to prevent consumer moral hazard.
- It was mentioned that "MOH had worked with insurers to introduce a minimum 5 per cent co-payment for new IP riders sold from April 1, 2019."

(d) With reference to the extracts, assess the appropriate policy measures to promote better outcomes in the Singapore healthcare market. [10]

Introduction:

- Better outcomes in the Singapore healthcare market refers to better health and hence less probability of falling sick. It could also refer to consumers enjoying affordable healthcare services, residents having greater accessibility to infrastructure such as public facilities and green spaces to encourage sports and exercise.

Requirement 1: To promote better health and reduce chances of getting sick, thereby reducing demand for healthcare services

- As mentioned in Extract 1, the Singapore government **directly provide health-supportive public facilities and green spaces**. These facilities and green spaces are located near residential areas and public transportation for better proximity.
- These health-supportive public facilities and green spaces offer a unique combination of physical, psychological, social, environmental, and economic benefits that encourage exercise and promote overall well-being. Besides provision of these infrastructure, there are complementary policies to raise awareness and foster healthier lifestyles using campaigns such as the National Steps Challenge.
- This may result in **saliency bias** that encourages consumers to have preference towards exercising. Salience bias describes people's tendency to focus on items and information that are more noticeable and observable, and to ignore those that do not grab our attention. Also known as the availability heuristic, the salience bias causes the residents to better estimate the benefits of exercising. This is effective given that the residents have imperfect information on the benefits of exercising.

Requirement 2: To ensure affordability of healthcare services

- As mentioned in Extract 4, healthcare is kept affordable for Singaporeans through heavy government subsidies, supplemented by the Medisave, MediShield, Medifund.
- While healthcare services are already heavily subsidised by the government which will lead to a fall in the price thus enhancing affordability, the ability to pay the subsidized rates might still be an issue for most Singaporeans. Hence it is important to save conscientiously for rainy days when illness strikes.
- Behavioural economics suggests that we tend to **pay more attention to present utility and ignore or heavily discount the long-term benefits of forgoing current consumption**.
- Medisave pre-empts such procrastination by enforcing medical savings among working Singaporeans.
- In addition to MediShield explained in part (c), Medisave encourages citizens to consumer health-care services more carefully as a savings rather than an insurance scheme. This will prevent over-consumption of healthcare services and price increases, thus keeping healthcare services affordable.
- MediFund on the other hand takes care and aids those with no other means of financial support, thus ensuring the ability to consume healthcare services. This reduces inequity of low-income households and bring about better outcomes for the healthcare market.

Evaluative Conclusion:

- While there are many policies that the Singapore government used to promote better outcomes in the healthcare market. The limitations and root causes need to be carefully examined for appropriate policies to be implemented.
- Although providing infrastructures might encourage exercise and reduce the chances of getting sick, the effectiveness of merely making the benefits of exercising more salient might be limited if there is no consistent reminder.
- By keeping healthcare services within reach for Singaporeans, the heavy subsidies complemented with 3Ms might not be sufficient given the rising costs of producing healthcare services. As mentioned in Extract 5, manpower cost accounts for more than half of healthcare costs and some critical healthcare roles in Singapore, such as radiographers and pharmacists, are in short supply which has lead to an increase in manpower costs. This will likely lead to a sharp increase in prices of healthcare services.
- Overall, the Singapore government needs to be mindful of the changes affecting the market of healthcare services. There needs to be a good mix of policies to promote healthy lifestyle to prevent sickness as well as providing affordable and quality healthcare services for Singaporeans.

EQ 2

Discuss the limitations faced by governments when they use policies suggested by traditional economics and whether behavioural economics can help them overcome these limitations.

R1: Explain the limitations faced by governments when they use policies suggested by traditional economics

- COE is meant to control car usage through limiting ownership. However, one unintended consequence of the COE is that by raising the cost of consuming automobiles, consumers may fall victim to the sunk cost fallacy and opt to increase their use of automobiles as a large amount of their limited income has already been spent. Hence, this increases the size of the MEC and leads to more pollution not less.
- A sugar tax can be used to decrease sugar consumption. As taxes increase, the purchase price of certain foods increases and consumers should reduce their purchases. However, demand for these low-value purchases is price inelastic, which means it is unlikely to decrease consumption significantly. A sugar tax would damage businesses across the entire supply chain, from farmers to food manufacturers.
- A carbon tax can be imposed on firms in order to force them to internalise external costs that result in global warming. However, this brings about negative effects on the macroeconomy, and reduced global competitiveness.

Ev: These limitations may not always be significant. Sunk cost fallacy applies to COE because amount paid is significant; may be less significant in every day decisions – we may buy a product decide not to use it and buy another one.

R2: Explain how behavioural economics can help them overcome these limitations

- Encouraging healthier choices
    - Leveraging salience bias – People are usually drawn to things that grab their attention or that appeal to them. They also use heuristics to simplify their decision making. Policies can centre around making healthy options attractive include using specific colours to indicate nutritional value of foods. Examples are the Healthier Choice Symbols and the mandatory nutrition label for sugar content for beverages sold in prepacked form. This would make it easier for consumers to choose healthier food when deciding what to eat.
    - Leveraging status quo/default bias – People exhibit inertia and tend not to deviate from the default option or reverse their earlier decisions. Hence, the Health Promotion Board launched the "Siu Dai by default" movement to promote healthier beverage options.

Ev: This assumes sufficiently "perfect info" by governments on consumers' behavioural biases and what is salient may become less salient is consumers are over exposed to it – for eg everything on a box is labelled red.

R3: Explain why behavioural economics may not help overcome these limitations

- Benefits must be compared to the costs. There are costs to implementation (campaign costs, political acceptance, menu costs). In general, there is a lack of information about the cost effectiveness of nudges. There is also little information about long-run (as opposed to short-run) behaviour changes in response to these policies.
- For some important decisions, it may be considered unethical to influence individuals using behavioural economics techniques and there may be a slippery slope to paternalism (e.g. banning advertising of sweetened beverages). By arguing that nudges can help people make better choices, it presupposes that policymakers know better than individuals what is in the individuals' own interest. Moreover, it can be hard to delineate when these interventions become coercive (i.e., when a nudge becomes a shove).

- Campaign fatigue can occur when agents are exposed to too many campaigns such that they become tiresome preaching and the message get diluted or ignored. Nudges also stop influencing decision making.
- Not all limitations involve directly changing consumer behaviour. In the case of carbon emissions, it is about forcing firms to internalise external cost as profit maximising firms have no incentive to do so on their own. Behavioural economics can be used if government shifts the problem to nudging consumers to make environmentally conscious decisions but this is often very untargeted and unlikely to succeed due to imperfect information – how to let consumers know of amount of pollution generated by firms? Also there may be no better option to nudge consumers towards – for e.g. if all firms using energy intensive production methods.
- Unintended consequences: Publishing each household's average energy consumption in comparison to others in their neighbourhood can help to reduce energy consumption. But people who learned that they consumed less energy than others in their area may start increasing their usage.

Overall Synthesis:

- Behavioural economics can oftentimes help governments overcome limitations faced when using policies suggested by conventional economics.
- However, still depends on the markets being dealt with/whether individual are necessarily subjected to behavioural biases.
- Depends on extent to which government has knowledge about consumer behaviour.

EQ 3

The outbreak of COVID-19 caused global greenhouse gas emissions, a major contributor to global warming, to plummet some 5.5 per cent in 2020. However, emissions have since resumed its upward trajectory and are projected to reach a record high in 2023. Current climate policies are insufficient to keep the rise in global temperatures to below 2 °C which was laid out as an overarching goal in the Paris Agreement to combat climate change.

Discuss whether economic theory can account for the above phenomenon as well as support the government intervention required. [35]

Explain the issues of global warming using concept of negative externalities in markets such as industrial production or motorised vehicles usage and how it results in market failure.

R1: Explain how the 'tragedy of the commons' applies to global warming:

- Global warming crisis is a case of tragedy of the commons on a global scale. The atmosphere is a common resource that is enjoyed by the population of the world. The tragedy arises because the incentive for each user to make sacrifices for the benefit of the common resource is significantly less than it is when a resource is privately owned. This is because efforts that are made to preserve the common resource benefit all users in equal measure, regardless of whether they have made the necessary sacrifices.
- The dilemma therefore arises due to the difficulty in privatising the benefits gained through an individual's sacrifices to preserve the commons. As these gains are shared equally by all users, this leads to the free rider issue.
- The 'rational' approach of each user is to free ride on the other users' sacrifices, resulting in few users willing to make the necessary sacrifices and the resource is eventually depleted. Thus, in the long term, such rational decisions are in fact irrational.

R2: As such, economics can support that there is a role for government intervention to correct for the market failure present in global warming. Analysis and evaluation of following:

- Enable the users of the resource to establish amongst themselves a system for its management. This approach results in both reduced informational and enforcement costs. Advocates for this argue that 'commons' dilemmas are best solved at a local level.
- Control and coercion by a centralised institution to monitor and enforce adherence.
- Intergovernmental intervention to reduce emissions by target levels.
- Creating a global supranational institution to tackle the issue. This institution will have rights to monitor, enforce and penalise.
- While some of the intervention can utilise economics to carry out the interventions (e.g. taxes equating to monetary value of emissions), others would exceed the realm of economics and involves political know-how.

R3a: Explain how the 'tragedy of the commons' does not apply:

- In tragedy of the commons, if a user choose not to overgraze the pasture and keep his cows off, the pasture condition will improve, which in turn encourage others to pasture more cows. Thus, an individual' restraint in choosing not to overexploit a resource has no beneficial effect since others quickly utilise the resource and overrides the initial benefit.

- However, the above does not apply in global warming. One's efforts to reduce emissions of greenhouse gases is unlikely to incentivise others to emit more. Thus any reduction in emissions by one party will in fact improve the common resource. As countries seek ways to reduce emissions, this will spur technological developments such as in clean energy, which then enable others to reduce emission everywhere, i.e. knock-on beneficial effects to reduce emissions.

R3b: Other non-economic factors:

- In addition, there are counterarguments to be made that economics cannot fully explain the problems of global warming and the related issue of climate change. There is a need to utilise forecasting statistics or climate science to predict the effects of global warming. There have been research data which shows both sides of the argument about the doomsday view of global warming versus others which show that the earth has been warming up since way earlier than the industrialisation periods, which suggest that global warming may be a natural phenomenon. The issue of whether greenhouse emissions will indeed lead to irrefutable impact on global warming and climate change has also seen debates among climate scientists who disagree with the prediction models used.

[Stand + Justification] Economics can explain the issues that bring about global warming to a large extent as well as the government intervention that is required. However, given the complexity of global warming and its related issues, other expertise in data science, prediction and forecasting as well as politics play significant roles as well to unpack the issues and point the way forward to mitigate the negative impact of global warming.

In the short run, intervention can focus on local and short-term penalties while in the long run, there is a need to have greater international cooperation and move on to global education campaigns to tackle the mind-sets change required to address the irrationality presented in our myopic individual actions.

With the push for cleaner energy sources, the level of global emissions will be better managed. There may be a case for supranational institution to look into coordinating the clean energy movement while playing an enforcement role to look into countries' adherence to the Paris Agreement.

EQ 4

A large firm operating in an industry with low levels of competition is considering the use of strategies to increase profits.

Discuss how the level of competition in an industry may affect the potential profitability of a firm and assess the extent to which strategies implemented by the firm will lead to higher profits. [35]

Candidates should begin by explaining that potential profitability may depend on the degree of competitive advantage of a firm, which can be determined through Porter's Five Forces. They should then go on to briefly explain the five forces (threat of substitutes, threat of entry, bargaining power of suppliers and customers and competitive rivalry in the industry). Next, students should go on to explain what it means by different level of competition and scope the essay by clarifying that they will compare a low level of competition (Oligopoly) to an industry with a high level of competition (Monopolistic Competition).

R1: Use Porter's Five Forces to explain how level of competition may affect profitability

Level of competition will lead to different levels of profitability of a firm.

- Threat of entry: Candidates should explain about how higher barriers to entry (and hence lower threat of entry) would allow for higher profitability.
    - They should go to explain and provide examples of how there is typically high barriers to entry in industries with low level of competition which leads to higher market share as compared to industries with high level of competition.
    - This would result in a higher and more price inelastic demand for firms in this industries leading to higher level of profits for these firms.
    - Possible examples could include the high natural barriers to entry in industries such as telecoms and public transport where there is high set-up costs (infrastructure cost).
- Threat of substitutes: Candidates should explain about how a lower threat of substitutability would lead to higher levels of profits.
    - Candidates should go on to explain about how since there is a large number of firms in highly competitive industries – a firm would would face a highly price elastic demand for its products. Any rise in prices would lead to fall in revenue and profits.
    - On the other hand, firms in industries with low levels of competition typically spends substantial amounts on advertising and branding which leads to artificial differences in the products offered in the industries. This lowers the threat of substitutes and allow the firms to earn higher revenue and profit levels.
    - An example could be in the smartphone industries, where Samsung and Apple does extensive advertising and branding.
- Bargaining power of customers and suppliers:
    - Candidates should explain how higher bargaining power of customers and suppliers would reduce profitability. They should also explain about how the bargaining power would depend on how concentrated the customers/suppliers are.
    - For firms in highly competitive industries, customers may have a higher bargaining power due to the numerous alternatives they have. Suppliers may also have a higher bargaining power as the large number of small firms would means that they are rather fragmented as buyers. They may mean that they have the ability to drive up the prices of factor inputs which would increase the COP of firms and reduce profitability.
    - On the other hands, firms in industries with low levels of competition may see customers and suppliers having lower bargaining power. Customers would have less alternatives to turn towards while the small number of large firms woud mean that they are concentrated as buyers and have the ability to drive price concession on factor inputs which could lower the COP.

    - However, students should recognize that the bargaining power is more dependent on the concentration of buyers and sellers. Even for firms in industries with low levels of competition, it could be that they still face the issue of high bargaining power of customers (e.g. aircraft engine) due to how there are only few and concentrated buyers of these products.
- Competitive Rivalry
    - Based on McGuigan et al (2005), few competitors may lead to firms going out of their way to avoid intense competition. This will likely lead to higher profit levels.
    - For firms in highly competitive industries, there may be high intensity of rivalry since there are numerous competitors and likely with similar products (due to the lack of ability to differentiate).

R2: Workings of possible strategies to increase profits

R3: Limitations of these strategies

After considering the different factors, candidates should move on to consider the strategies firms can use and consider whether it will lead to higher profits. Firms analysis and diagram should be used to demonstrate how the strategies would affect revenue/costs and hence profits. For a balanced argument, candidates should also bring in the limitations of these strategies to explain how these strategies may not lead to higher profits. Where possible, students should link the strategies to how it can weaken the relevant Porter's Five Forces and hence allow for higher profits. Possible strategies include (but not limited to)

- Process innovation, leading to a fall in AC and higher profits.
- Product differentiation through advertising to increase revenue. Students should bring in game theory to show how advertising may actually lead to lower profits.

		Firm B	
		Don't' Advertise	Advertise
Firm A	Don't Advertise	$1.5m, $1.5m	$0, $2.5m
	Advertise	$2.5m, $0	$1m, $1m

- Pricing strategies such as predatory pricing. Students can also bring in the idea of game theory here.

Evaluation:

- In evaluating, students can consider the relative importance of the five forces in affecting the difference in profit levels
    - The threat of entry and threat of substitutes may be more significant due to the ability of firms in low level of competition to build brand loyalty and differentiate their products.
    - Bargaining power of suppliers and buyers may be slightly less relevant as there are other factors that determine this (as mentioned above)
- Students also can briefly touch on how there are factors beyond the level of competition that affects these five forces and hence profitability.
    - For example, for competitive rivalry, it is not always true that firms with low level of competition may not compete with each other. For example, in industries which are stagnant of declining, competition can be fierce as they would compete for a declining output. Another factor could be regarding exit barriers, when faced with high barriers to

exit, firms may have to double down and implement aggressive strategies when faced with declining demand since they are unable to exit the market easily.

- Lastly, students should also consider whether strategies by firms will lead to higher profitability.

Strategies that focused on real changes through product differentiation or even improving business processes to reduce inefficiencies would likely be more successful as they are may difficult to emulate – even if rivals adopt a similar strategy, success is not guaranteed for them.

Question 5

Discuss the extent to which being open provides the best way for economies to attain inclusive economic growth [35]

R1: Explain how being open allows for attainment of inclusive economic growth.

Sustained EG through exports (openness to trade) and FDI (openness to exports)

- With FDI, faster convergence of emerging economies according to Solow-Swan and spillovers from knowledge transfers according to Romer.
- Inclusive growth attained through faster wage growth (compared to growth through focused on domestic markets), job creation for masses in emerging economies

Evaluation:
Arguments more relevant to emerging economies where domestic consumption levels are lower due to lower incomes; less so for advanced economies who now compete with emerging economies especially in areas where they have lost CA in, resulting in structural unemployment and/or decline wages in these sectors

Inclusiveness may not be fostered – e.g. race to the bottom in terms of corporate tax, thereby limiting ability of government to spend on transfer payments, etc

R2: Explain how human capital development allows for attainment of inclusive economic growth

- Can take the form of increasing quality of education and/or skills upgrading/retraining; quality of education may be more relevant for emerging economies; for advances ones skills upgrading. This would increase productivity of labour increasing it demand and wages
- Also retraining for workers who structurally unemployed
- Skills upgrading for workers who are lower skilled allows them to have higher wages

Evaluation:

Effectiveness of policy may be uncertain given imperfect information on what courses are useful/relevant for skills upgrading; also when designing educational curriculum given changing skills being demanded with technological advancements.

Depends on institutional, i.e. role of government

In age of declining social mobility, translation of skills into wage outcomes not guaranteed – role of "social capital" in form of networks.

R3: Explain how goods institutions, including those which emphasise redistribution, allows for attainment of inclusive economic growth

- Policies such as having a progressive tax system, as well as appropriate transfer payments lead to inclusive economic growth; growth itself is obtained as mpc of lower income groups higher than that of higher income groups
- Others ways in which inclusive institutions can foster inclusive growth – government supported banks to provide microcredit to small scale entrepreneurs, environment which allow small businesses to grow, etc

Evaluation

Path dependency of institutions – hard to bring about real institutional changes

Overall Synthesis:

- Being open can help attain inclusive economic growth, especially by leading in faster rates of economic growth (experience of East Asian tigers) – this is however more obvious in emerging rather than developed economies.
- However it itself does not lead to inclusive economic growth – role of intuitions matter, as well as human capital development – this ensures as many locals are able to take advantage of benefits brought about by open-ness

Mark scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a balanced and clear analytic explanation of how being open and other policies can help economies attain inclusive economic growth. Analysis shows application to the real world, and is illustrated with relevant examples.	18-25
L2	For an answer that shows a basic but descriptive explanation of how being open and/or other policies can help economies attain inclusive economic growth	10-17
L1	For a basic or limited explanation of how being open and/or other policies can help economies attain inclusive economic growth	1-9
Evaluation		
E3	A detailed evaluation of the extent to which whether being open provides the best way for economies to attain inclusive economic growth. Conclusion made is well-reasoned and synthesises previous judgements made.	7-10
E2	For an answer that makes some attempt at evaluation or a conclusion about whether being open provides the best way for economies to attain inclusive economic growth	4-6
E1	Limited conclusions that are not supported by reasoned argument and that are not well directed at the question.	1-3

EQ6
Discuss whether sustainable growth can be more easily achieved by advanced economies than by emerging economies. [35]

This question requires students to show good understanding of the characteristics of both advanced and emerging economies, and how those characteristics would impact the effectiveness of policies in the pursuit of sustainable growth

Response should be balanced and show how sustainable growth may or may not be effectively achieved in both economy types, depending on the characteristics of the economy

Introduction

- Sustainable growth consists of both **actual and potential** growth, as well as addressing **environmental** concerns such as reducing resource depletion (so that resources are available for future generations), reducing negative externalities
- **Advanced** economies can be characterised by higher access to technology, higher literacy rates, higher income levels, less spare capacity, stronger legal frameworks, govt has greater access to funds, stronger financial market development, diversified economy
- **Emerging** economies have relatively less access to technology, lower literacy rates, lower income levels, more spare capacity, looser legal frameworks, govt has less access to funds, weaker financial market development, lack of diversification (possibly leading to the economy being dependent on natural resource extraction)
- Policies that could be used include market based approaches such as taxes or subsidies, direct controls in the form of rules and regulations, broad legislation

Main Development

Thesis: sustainable growth could be more easily achieved by advanced economies

R1: Sustained growth

- Use of fiscal policy with a strong supply side bias
    - Government can conduct research and development in green technology that can be more effectively done in advanced economies as they have higher education levels
    - Increase G → Increase in AD → actual growth
    - Increase in quality of capital → increase in productive capacity → Increase in LRAS → potential growth
    - Use Romer Growth model to bring in the idea of cutting edge growth

- Due to stronger financial market development, advanced economies may also have access to more funding for green initiatives. The availability of credit would encourage more investment in green initiatives → Increase in Investment expenditure → Increase in AD → actual growth

R2: Sustainable growth

- The presence of stronger legal frameworks in advanced economies can help to more clearly delineate the rights of affected parties when environmentally unfriendly behaviour occurs. This would incentivise economic agents to make decisions which minimise negative externalities. Coase theorem should be used.

- **Moral suasion** could also be more effectively utilised. Advanced economies could already have attained a higher standard of living, thus encouraging the population to take into account environmental concerns would be more possible. This would serve to nudge consumers toward environmentally friendly consumption habits such as reuse, repair or recycle.

Anti-thesis: sustainable growth could be more easily achieved by emerging economies

<u>R3a: Sustained growth</u>

- Emerging economies may be able to attract more **foreign direct investment** (FDI). There may be an abundance of labour who are willing to accept lower wages. Firms would thus be able to enjoy lower cost of production relative to having production activities in advanced economies.
- Increase FDI → increase AD in the SR → actual economic growth
- Increase in productive capacity in emerging economies → increase LRAS → potential economic growth

<u>R3b: Sustainable growth</u>

- Expertise from advanced economies could be used in emerging economies
    - Positive externalities of research and development done in advanced economies, enjoyed by the emerging economies.

- Infrastructure in emerging economies may not yet be fully developed. There may thus be more opportunity to build infrastructure that is environmentally friendly eg use of industrial symbiosis or building electricity generation plants that make use of clean technology

- **Industrial symbiosis** refers to collaborations that enable the waste generated by one firm to be transformed into raw material to be used by another firm. By locating these firms near each other and developing relevant infrastructure (such as pipelines), the cost and time taken to transport such waste can be greatly reduced, thus enhancing the economic viability of such by-product reutilisation. Such endeavours often require government coordination to plan and create industrial clusters to locate such firms and to pre-develop the needed infrastructure.
    - **EV:** However, the creation of industrial clusters to facilitate industrial symbiosis may be too complex and costly for the governments of emerging economies.

Evaluation

- [STAND] In conclusion, advanced economies would more easily be able to attain sustainable growth, as compared to emerging economies.
- Advanced economies likely have both the willingness and ability to conduct policies to bring about sustainable growth, whilst emerging economies may lack both the willingness and ability.
- [SITUATION] Currently, with higher inflation in many countries, cost of living concerns have become the priority for governments to address. For advanced economies where income levels are higher, the impact of inflation would be less than for the lower income emerging economies, thus cost of living concerns would be a more urgent issue to address for these economies. It would then be more difficult to implement policies such as the use of carbon taxes which could contribute to inflation further.

- [SITUATION] Furthermore, some advanced economies may use regulatory arbitrage and exploit emerging economies by offshoring or outsourcing the polluting parts of their supply chain, due to the looser regulations there. This would worsen the environment in emerging economies. To address this, emerging economies can work on tightening their environmental legislations.