Anderson Serangoon Junior College
2025 H2 Economics Prelim Paper 1
Suggested answers

Question 1: The travel industry: A dilemma for the government

(a)	**With reference to Table 1 and using a demand and supply diagram, explain the relationship between air fares and passenger airline revenue between 2019 and 2020.**	**[3]**
	Between 2019 and 2020: Air fares decrease, TR decrease positive/direct relationship Reason: fall in DD due to government policy of lockdowns and fear of contagion > fall in SS due to expectations of fall in profits (or due to lockdowns so planes cannot fly) P falls, Q falls therefore TR falls <u>Alternatively:</u> Can accept diagram showing fall in demand only ● Explain Fall in DD ● Recognise that TR = PxQ ● P and Q fall TR falls <u>OR</u> Increase in SS with inelastic demand P falls and Q increases by less than proportionately TR falls	
(b)	**With reference to Table 2, compare the income elasticity of passenger demand for air travel between short-haul and long-haul flights for both developed and developing countries.**	**[2]**
	<u>Similarities:</u> ● Both have positive income elasticity of demand ● YED for long haul flights > short haul flights for both developed and developing countries. <u>Difference</u>: For developed countries, YED for both short-haul and long-haul flights is lower than for developing countries.	
(c)	**With reference to Extract 1, explain the effect of information failure on the tourism market.**	**[3]**
	● Using evidence from Extract 1, give examples of MPB perceived – “magical moments, picture-perfect scenery” ● Divergence between MPB perceived and MPB actual, where MPB perceived is > than MPB actual ● Explain overconsumption: -> At market equilibrium Qe: MPB perceived = MPC but MPB actual < MPB perceived at Qe: MPC>MPB actual over-consumption of a particular destination welfare loss	

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	Alternative case where compare MPC perceived and MPC actual ● Eexamples of MPC perceived and examples of MPC actual from Ext 1 – "crowded to the point of discomfort, noisy" ● Divergence between MPC perceived and MPC actual, where MPC perceived is lower than MPC actual ● Explain over-consumption	
(d)	**With reference to Extract 2 and using the concept of minimum efficient scale, explain why airports tend to be natural monopolies.**	**[4]**
	Minimum efficient scale refers to the output level where LRAC is at a minimum i.e there is no cost savings from further increase in output. A natural monopoly refers to a situation where a single firm can supply a good to the entire market at a lower unit cost. Airports have high MES which means that their LRAC falls continuously over a very large output level. Reason ● This is due to the ratio of fixed costs to variable costs is very high. For example, with reference to Extract 2, the costs of constructing airports like airport terminals, runways, control towers etc cost millions or billions of dollars. ● This allows them to enjoy huge economies of scale which is the cost savings from higher output level. For example, when output (such as services to passengers or flights) increases, the fixed cost is spread over an increasing output such that the cost per unit of output falls continuously. This explains the plan for the King Salman International Airport to increase the number of passengers from 120m to 180m. ● This also acts as a huge barrier to entry making it difficult for new firms to enter the market and compete with the existing firm. This allows the natural monopoly to produce at a larger scale than any potential competitors, which leads to lower average costs. ● With a given market demand, King Salman International Airport, which has high MES due to its capacity to serve 120 m passengers and more, is sufficient to supply all the airport services in Riyadh. Thus, for airports like the King Salmon International Airport, it can only be a natural monopoly.	
(e)	**Discuss whether adopting new technology is the best way for travel agencies to remain competitive.**	**[8]**
	Travel agencies can remain competitive by using price and non-price strategies	

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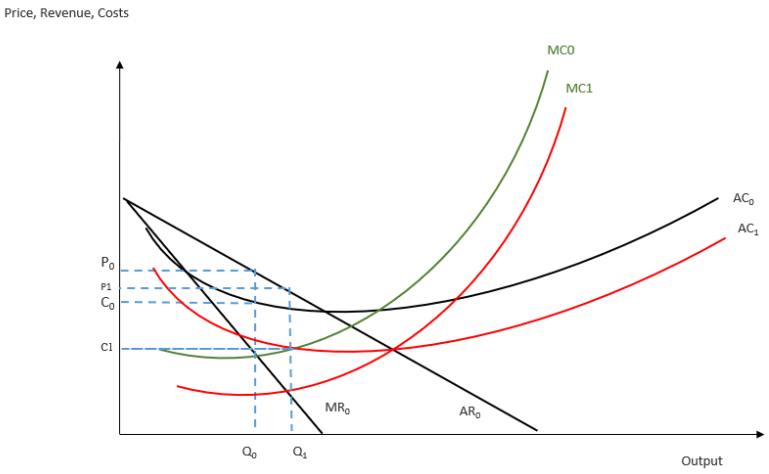
R1: Adopting new technology reduces costs and therefore enable the travel agency to be more price competitive. (Answers can also include how technology can increase non-price competitiveness)

The use of technology helps to increase efficiency, i.e more output with the same amount of inputs and so help to reduce costs of production. Extract 3 mentions that technology can be used to 'streamline operations and reduce costs' and social media 'enables a small number of staff to handle large number of inquiries' and many other tasks. For example, hotel and airline bookings, collection of data, planning for new itineraries can be more effectively done with the use of technology, which saves time and manpower. The travel agency can also use social media to advertise its services which is much cheaper than using traditional media like newspapers and magazines and it would also have a wider reach and greater flexibility in responding to more recent trends. So cost is spread over a larger output.

From Figure 1, the original equilibrium output is where MCo = MR at Qo and the price charged is Po. But with the cost savings from the use of technology, the MC and AC curves shift rightwards to MC1 and AC1. The new equilibrium output is at Q1 and the prices is now lower at P1. As the firm is a able to charge a lower price, it is able to compete with other travel agencies which did not use technology.



R2: However, it is also important that travel agencies adopt non-price strategies to remain competitive.

- Travel agencies operate in a monopolistically competitive industry where the key feature is product differentiation. So each travel agency must employ non-price strategies to differentiate its products from other travel agencies to remain competitive.
- As mentioned in the extract, the 'human touch' is needed for travel agencies to be competitive. Travel agencies must value-add to their services to meet known and unknown needs and wants of customers. For example, it can provide 24/7 customer support, create unique and tailored experiences for customers of different demographics.

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- (For example, in SG, many of our seniors have purchasing power and are in better health, and so travel agencies can customized programmes to cater to this group of seniors. Also, many Singaporeans are very well travelled and well informed. A travel agency can focus on niche markets such as adventure tourism and eco-tourism.)
- The aim of the travel agency is to effectively change tastes and preferences of customers to its product so that it can capture a bigger slice of the market. This can be seen as a rightward shift of the demand curve as well as a more inelastic demand curve as customers become loyal to the travel agency. Other travel agencies that lower price will not lead to large switch of consumers to the rival firms.

Conclusion

- A travel agency must adopt new technology as it is the best strategy to reduce costs as it can boost productivity in all aspects of the business and therefore makes it more price competitive but technology alone is not sufficient for a travel agency to remain competitive.
- Technology is easily available and accessible to all firms and so a travel agency will not be much of an advantage compared to another travel agency and so price difference may not be very significant if travel packages are similar.
- Travel agencies provide a service and so the 'human touch' in the form of meeting more of the needs of customers is not something that technolgy can replace.
- It requires the travel agency to be more creative and adaptable to create unique travel experiences and this is not something rivals cannot emulate easily.
- That said, technology can assist a travel agency with product differentiation such as creating and customising services to better meet the wants of customers such as 'online data gathering … to more effectively customize travel to the client's interests, comfort and well-being'.
- Thus, in a monopolistically competitive industry like tourism services, non-price strategies using the 'human touch' aided by technology may be the best strategy to remain competitive.

Knowledge, Application, Understanding and Analysis		
L2	Answers in this level will provide detailed explanation on how technology enables the firm to be more price competitive. Reference must be made as to how technology affect costs of production. An alternative strategy to increase non-price competitiveness must be clearly explained in terms of what the strategy involves and the impact it has on the firm. There must be	4-6

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		recognition that the travel agency is operating in a monopolistically competitive industry where product differentiation is a key characteristic.		
	L1	Answers in this level will have limited explanation on how technology affect costs and in turn affect price. The alternative strategy is explained in a very general manner without any concrete egs to illustrate the meaning of product differentiation.	1–3	
	Evaluation			
	E	Evaluation marks will be awarded for a comment on whether technology is the best strategy. Can be with reference to any of the following ● Extent adoption of technology helps to reduce prices ● Extent price competitiveness is important ● Extent non-price competition is important	1-2	
(f)	**With reference to data and your own knowledge, discuss whether market failure issue is more important than economic growth as a reason for government to intervene in the tourism market.**			**[10]**
	The government pursues both micro and macro objectives so that society's welfare is maximised. It may, however, prioritise one objective over another, depending on their relative importance. Tourism has an impact on both micro and macroeconomic goals of an economy. <u>R1: There is market failure in the tourism industry resulting in allocative inefficiency and therefore a loss of welfare to society.</u> Countries that suffer from overtourism suffer welfare loss to society as the market fails to allocate resources efficiently due to the negative externalities generated by the tourism industry. In a free market, producers (such as travel agencies, transport or hotel operators) and consumers (tourists) only consider their own private costs and benefits with regard to tourism services such as hotel accommodations, transport services such as air and land transport, guided services etc. ● Left to the market, the <u>market equilibrium output is (such as number of trips) is at Qe where MPC=MPB, DD=SS.</u> ● It is more than the socially optimal output of Qs (MSB=MSC) because tourists, who are the <u>consumers of travel services, did not take into account the negative externalities</u> from their consumption of tourism related services such as accommodation, transport services etc. ● Third parties like the local residents of Bali or New York must pay 'inflated prices' such as food, rental and housing, delays caused by traffic congestion, poor health due to air and noise pollution due to 'overcrowding'. (OR) Third parties like local business not in the tourist trade will also suffer from losses (Extract 4) as with more tourists coming in, there is increase competition from tourists related establishments such as big hotels for labour and land. Therefore, there is rise in wages and rental causing local businesses to suffer from higher cost. ● Due to negative externalities, there is a <u>divergence between MSC and MPC where MSC=MPC +MEC.</u> The socially optimal output is at <u>Qs where the MSB curve intersects the MSC curve.</u> ● This results in <u>over-consumption of tourism by QeQs. From Qe to Qs, MSC > MSB</u>. This means that the additional benefit to society is less		

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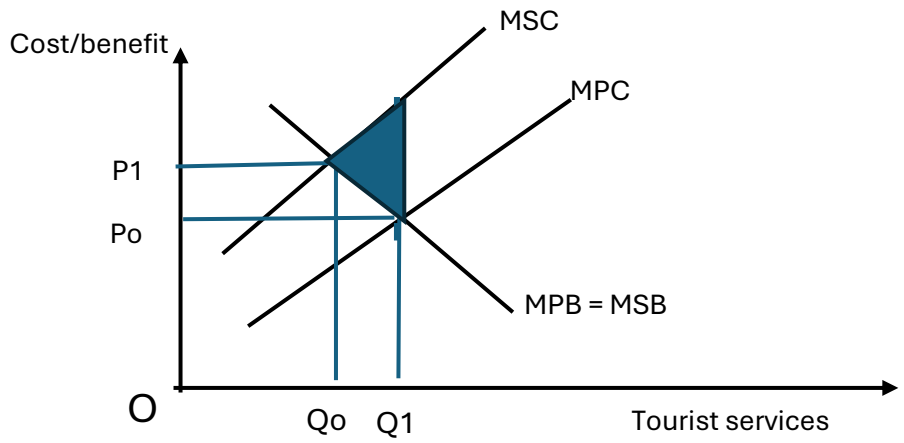
than the cost to society of producing these units. By summing the excess of MSC over MSB for QeQs, we arrive at a monetary measure of total deadweight loss to society equal to the shaded area. Thus, society welfare is not maximised when society over-consumed tourism.



- In the long run, more forest land will be used to develop hotels or build infrastructure. This could lead to depletion of forest cover which could have adverse impact on the climate as well as depletion of resources.

<u>There are several ways to address the 'Discuss … that it is important'part of the question.</u>
i) <u>Substantiation that this loss of welfare is significant and therefore many governments have implemented or are going to implement various measures to reduce overtourism</u>
Governments regard this loss of welfare is important and therefore they implemented various measures to reduce overtourism

- For example, in countries like Spain, the government <u>impose caps on visitor arrivals or taxes</u>. In Japan, a tax is imposed on hotels. Imposing a tax on tourists will cause the <u>MPC curve to shift leftwards</u> and the <u>price will increase</u>, <u>reducing the number of tourist arrivals from Qe to Qs, thereby removing deadweight loss and maximizing society's welfare.</u>

OR

<u>ii) Explain the problems/limitations of intervention in terms of conflict with the macro goal of economic growth)</u>
However, government intervention to reduce overtourism would create problems.

- Reducing the number of tourist arrivals will cause a rise in unemployment as tourism is a labour intensive industry and also, tourism is part of a country's exports. Fall in tourist arrivals will reduce exports and this will negatively affect economic growth.
- Also, tt is difficult to determine the 'right' number of tourists as the monetary value of the negative externalities are difficult to measure. For eg, too high a tax rate will cause a larger deadweight loss if the number of tourist falls drastically below Qs

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OR

- It depends on the severity of the negative externalities and the cost of intervention. Where the negative externalities have wider societal impact such as widespread income inequality that may lead to social unrest would warrant government intervention in contrast to more localised problems such as occasional poor behaviour of a few tourists.

R2: The travel industry generates economic growth and therefore the government intervenes to encourage tourism

- When tourists spend in the domestic economy such as spending on accommodation, food and transport services, export revenue increases. Assuming imports constant, net exports increase.
- As net exports increases, AD increases as it is a component of AD. The AD curve shifts to the right. The increase in exports increases income for those factors of production in the tourism sector. Extract 4 mentioned that in Bali, the 'influx of visitors has brought in tremendous revenue to the local economy'. This is because hotels will employ more staff and travel agencies will employ more tour guides etc. Thus, increase tourist arrivals create additional employment. With more factors of production employed, there will be increase in income leading to increase in induced consumption on domestically produced goods like food, transport etc. This additional spending in turn will generate additional income for other factors of production which are involved in producing more goods and services. At the same time, there is increase in withdrawals like savings, taxes and imports. This is the multiplier effect whereby the increase income and spending will come become smaller and come to an end when the initial increase in exports is equal to total withdrawals. By then, the national income would increase by a multiple depending on the size of the multiplier.

- **(Brief version:** This suggests that there was an increase in export revenue. This will increase AD since (X-M) is a component of AD.
- This will cause unplanned fall in stocks. Producers are encouraged to increase production by increasing employment of more factors of production which then increases household income. This triggers the multiplier process whereby there will be additional spending and rise in income and hence lead to a multiplied increase in GDP. The increase in production will also lead to increase in demand for labour resulting in a fall in the unemployment rate.)

- Thus, tourism benefits the economy in terms of earning more foreign exchange for the country, reducing the unemployment rate and increases real GDP. Overall, the standard of living increases

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assuming population unchanged and per capita income increases. With rising income, government will earn more tax revenue and so more funds are available for spending on health care, housing and education which increase non-material standard of living.

To address "Discuss" part of the question

i) Substantiation that government views tourism is important in boosting economic growth

Tourism is **important** to many countries as seen by the active intervention by goverments to boost tourism in the country

- For example, SG is spending $300 million to increase tourism to help the tourism sector to recover from the Covid pandemic. It also increases spending to develop more tourists attractions such as 'Porsche Experience Centre (Extract 5), and a world-class wellness attraction near Marina Barrage.

OR

ii) Limitations or problems that the tourism industry can give rise to

- Economic growth arising from tourism has negative effects such as rise in income inequality (Extract 4) as well as loss of well due to negative externalities.
- Rising income inequality arises because many hotels and resorts are foreign-owned and local business may not be able to compete.

Evaluation

Criteria

- State of the economy
- Time Period

For a poor country, priority should be on economic growth as it is the way to lift its people out of poverty. Tourism may be the easiest and least costly way to increase export revenue. Poor countries that are endowed with natural sightseeing spots such as Bali, they are said to have comparative advantage in exporting tourism services, and this enables them to consume beyond their PPC. Although there may be rising income inequality, these problems can be managed when government collects more tax revenue which they can use for redistributive purposes.

However, for more developed economies, they have more resources to increase economic growth other than tourism which may not cause as much environmental damage. So, dealing with market failure may be more important. In the case of SG, it focuses on export of financial and healthcare services and the export of high value-added goods like pharmaceuticals. To reduce the impact of negative externalities from overtourism, it manages the inflow of tourists by being more selective by focusing on tourist spending rather than the

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number of tourists (Extract 5). Thus, a country can encourage tourism to generate growth without encountering severe negative externalities.

In the long run, market failure issues are more important because severe environmental damage can be irreversible resulting in depletion of resources. In the case where the widening income gap due to the 'multinational national companies are reaping most of the rewards' as in Bali, there can be a backlash where local discontent can lead to social instability which may adversely affect tourism. If such problems are unchecked, any economic growth generated in the short run would not be sustainable. Thus, it is necessary to aim for sustainable tourism. SG has so far avoided overtourism by focusing on 'quality' tourism, such as tourist spending rather than the number of tourists.

Students should avoid repeating their answers from a previous question such as part c) which is on information failure.

Knowledge, Application, Understanding and Analysis		
L2	Answer that shows developed analysis of market failure due to negative externalities from overtourism and therefore requires government intervention and how tourism boost economic growth and so justify government intervention. To score: Candidates must have answer that is relevant to the question with good use of well-explained theory. Answer is written with clear explanation that is supported by a tool of analysis such as a diagram.	4-7
L1	Answer that shows knowledge and understanding of either how government intervention to reduce market failure or to promote tourism to increase economic growth, will increase welfare of society. OR Even both are explained, but the explanation tends to be cursory and descriptive.	1–3
Evaluation		
E3 E2 E1	Evaluation marks will be awarded for consideration of severity of the problem, the relative importance of the goal, assumptions about tourism generating negative externalities and economic growth, time period, opportunity costs etc A conclusion must be provided. To achieve E3 (3m): Candidate are required to synthesize arguments and make evaluative judgements and consider the leading to a decision based on judgements. One developed evaluative decisions/judgements that is well explained and reasoned. An evaluative judgement or decision that is supported by the arguments presented in the answer and is link to the context of the question. This may involve a summative conclusion. For an answer that makes some attempt at evaluation or a conclusion that answers the question but does not explain the judgement or base it on analysis. For an answer that gives superficial evaluative statement(s) without supporting analysis and elaboration	1-3

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		Just state the judgement + rehearsed explanation 1m		

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Question 2: Maintaining stability and navigating global uncertainty

(a)(i)	**Compare the fiscal balance of Taiwan and Singapore from 2020 to 2023.**	**[1]**
	Taiwan's fiscal balance was in deficit throughout the period while Singapore's fiscal balance went from a deficit to a surplus.	
(a)(ii)	**With reference to Extract 6, explain two reasons why it is desirable for countries to "enhance fiscal sustainability".**	**[4]**
	Fiscal sustainability refers to a government's ability to maintain credible and serviceable public finances over the long term. This can be achieved through a combination of reduced government spending and increased revenue generation. <u>Reason 1</u> Maintaining fiscal sustainability ensures that the government retains sufficient fiscal space in terms of having government funds to implement countercyclical measures during economic downturns, such as expansionary fiscal policy through increased government spending or tax reductions. Furthermore, fiscal sustainability enables the government to invest in supply-side policies that enhance the economy's productive capacity, such as infrastructure development, education, and research and development. These investments are crucial for promoting long-term economic growth and improving the economy's potential output. <u>Reason 2</u> When fiscal sustainability is achieved, it helps instill confidence in the economy, leading to an improved economic outlook that stimulates both investment and consumption (Extract 1). As aggregate demand (AD) increases, there is a multiplier effect on real national income, resulting in actual growth. Moreover, increased investment enhances the economy's productive capacity and raises the long-run aggregate supply (LRAS), contributing to potential growth. Consequently, the country can achieve greater economic stability and sustainable long-term growth.	
(b)	**Using the concept of Production Possibility Curve, explain the possible short-term and long-term consequences on living standards of increasing research and development efforts in Taiwan.**	**[4]**
	<u>Short-term consequences for living standards</u> Assuming that there is spare capacity, (Taiwan is operating at point G inside the PPC), the increase in research and development could lead to an increase in the production of goods and services since the idle resources would be utilised in the production process (movement from point within to point on PPC). As a result, more capital goods could be produced without forgoing consumer goods; therefore, standards of living would not necessarily fall despite the increase in capital spending. In addition, as employment increased, there would be a rise in national income and actual growth and hence, increase in consumption of goods and services, leading to a rise in material living standards.	

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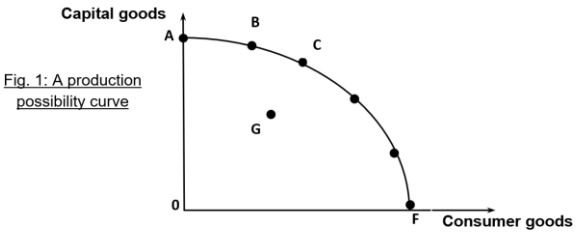

Fig. 1: A production possibility curve

However, if Taiwan is already operating at full employment (at pt C), increasing capital spending (movement from pt C to pt B) carries a significant opportunity cost. Resources must be diverted from the production of consumer goods to produce capital goods, as no idle resources are available. Consequently, this reallocation could lead to a temporary decline in material living standards in the short term as less resources are allocated for the production of consumer goods.

Long-term consequences for living standards

Regarding the long-term impact on living standards, increasing innovative technological spending (Extract 7) can enhance Taiwan's productive capacity by improving both the quality and quantity of available resources. This expansion in productive capacity, represented by the outward shift of the PPC, could lead to a greater abundance of goods and services available for future consumption, thereby potentially improving living standards.

(c) **Assess the reasons why Taiwan chose to specialise in the production and export of semiconductors.** **[8]**

R1: Due to dynamic CA	R2: Due to increasing global demand
● Dynamic comparative advantage in semiconductors ● Through massive investment in education, R&D, and targeted industrial policies.	● Increasing global demand for IT products ● Key producer for its intermediate good (derived demand)

R1: Taiwan chose to specialise and export semiconductors as it has comparative advantage in the production of semiconductors, acquired through higher levels of investment and R&D with government support

A country possesses comparative advantage in the production of a good when it can do so at a lower opportunity cost than other countries.

According to Extract 7, Taiwan has strategically focused on developing its semiconductor industry through improving its **factor endowments**. The Taiwanese government has fostered this **technological development** through establishing research centres and offering tax and business incentives to attract foreign direct investment (FDI) and research and development. These manufacturing technologies and management expertise have significantly improved production efficiency in Taiwanese firms.

Through a targeted education system, Taiwan has developed a substantial pool of **skilled labour**. This human capital development reduced training

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costs for firms whilst increasing labour productivity, as workers possessed industry-specific skills that enhanced manufacturing precision.

Furthermore, the resulting increased investment in advanced fabrication facilities enabled **economies of scale**, spreading fixed costs across larger production volumes and reducing average costs. Modern equipment and automated production lines further enhanced productivity by increasing output per worker whilst maintaining consistent quality standards.

Overall, these combined improvements in human capital, technology, and production processes systematically lowered the opportunity cost of producing semiconductors relative to other countries. Taiwan could now produce semiconductors more efficiently than other countries, establishing a clear comparative advantage.

Therefore, to achieve economic development, Taiwan chose to specialise and export semiconductors. Since this industry creates high-value economic output, the export revenue contributes significantly to Taiwan's real GDP, stimulating actual growth. The industry's technological nature also promotes long-term economic development through innovation and productivity improvements.

R2: Taiwan specialise in and export semiconductors due to demand-side reasons

Taiwan's strategic choice to specialise in semiconductors stems from how this industry helps achieve multiple macroeconomic objectives with increasing global demand.

Due to **globalisation and industrial evolution**, there has been a significant shift towards technology-dependent sectors, including financial technology, e-commerce, cloud computing and artificial intelligence. The rising demand for electronic products such as smartphones, laptops, smart appliances and electric vehicles has created an increasing need for semiconductors, which are essential components in these finished products (Extract 7). Consequently, the growing reliance on digital and IT-based products in our globalised, technology driven economy has led to a greater **derived demand** for semiconductors.

Through its semiconductor exports to global markets, Taiwan has gained access to extensive export opportunities. This expansion has led to an increase in net exports (X-M) and consequently an increase in AD. As AD increase, there is unplanned stock depletion and firms step up production, increasing factor payments and income, which triggers the multiplier effect. The higher income stimulates induced consumption across other domestic sectors while also increasing withdrawals in the form of savings, taxes and spending on imports. The multiplier process continues until the cumulative increase in withdrawals matches the initial injection. As a result, Taiwan experiences **actual growth.** As firms increase production, the derived demand for labour increase, leading to increase in **employment levels**.

[Can also end on improved **B**alance of trade]
Taiwan's external balance also improved significantly through increased net export earnings from its semiconductor industry, strengthening its balance of trade position. As semiconductors are high-value-added products, specialisation in their production generates substantial export revenue. This

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specialisation has contributed considerably to improving Taiwan's **current account balance**.

Overall Evaluation
Acceptable approaches:
1. Take a stand on which reason is the main reason for Taiwan's decision, OR
2. Evaluate whether the reasons are indeed valid for Taiwan to make such a decision

Approach 1
[Weigh]
Taiwan's decision to specialise in the production and export of semiconductors is more likely due to its comparative advantage in the production of semiconductors.

While demand side factors have been crucial in sustaining and expanding Taiwan's semiconductor industry, they primarily served to reinforce and validate the success of government policies rather than initiate the specialisation.

Without initial government intervention, Taiwan would likely have lacked the fundamental capabilities to capitalise on semiconductor demand, regardless of market opportunities. The industry requires extensive infrastructure, substantial capital investment, and highly specialised technical expertise that private enterprises alone would be difficult to develop. The government's strategic establishment of research centres, technological parks, and targeted incentives created the essential foundation for the industry to emerge. The government's foresight in establishing the necessary conditions for semiconductor production and helping Taiwan acquire CA in its production ultimately proved more fundamental in determining Taiwan's specialisation pattern.

Approach 2:
[Situation - nature of economy] Taiwan's heavy reliance on international trade increases its vulnerability to external shocks, potentially undermining its macroeconomic stability. As a trade-dependent economy, Taiwan is particularly susceptible to global supply-side constraints, including logistical disruptions. For instance, a slowdown in global demand could reduce demand for Taiwan's semiconductor exports, leading to a deteriorating current account balance and reduces AD.

[**R**ecommendation] To mitigate these risks, implementing diversification strategies and expanding domestic productive capacity are essential steps towards reducing trade dependency and enhancing economic resilience.

Mark Scheme

Knowledge, Application, Understanding and Analysis		
L2	Answers in this level will apply knowledge of the Theory of CA and another reason using case study evidence and/ or applied to the context of Taiwan	4-6

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L1	Answers in this level will have under-developed explanation on the Theory of CA and/or another reason with limited reference to Taiwan or semi-conductors context.	1–3
Evaluation		
E	Well-substantiated evaluative judgement on the reasons for Taiwan to specialise and trade.	1-2

(d) **With reference to Extract 8, explain how transfer payments such as the GST Voucher scheme can help to improve income distribution.** **[3]**

[economic issue: meaning of regressive]
Indirect taxes such as GST are applied equally to all goods and services, regardless of the income level of consumers. As such, people with lower income will pay a larger portion of their earnings in GST as compared with the higher income group, worsening income inequality.

[How transfer payment works]
According to Extract 8, the GST voucher payout is tiered based on income levels and housing type, ensuring more support for those with greater needs.

The GST Voucher scheme helps to increase the disposable income and hence increases the purchasing power of the lower- to middle-income households. Therefore, these income transfers will help households defray their daily expenses and have the effect of tempering the cost of living increases faced by them and improve income distribution.

(e) **Discuss whether supply-side policy to increase real wage growth is the best way for countries to deal with higher living costs.** **[10]**

Question analysis:

Command word	1. "Discuss whether" – requires a balanced answer with two policy approaches. 2. "SS-side policies to increase real wage growth" – first policy must explain one SS-side policy aimed at increasing real wage growth + another alternative policy to either increase real NY or control inflation 3. "best way" - overall evaluation is essential to assess which approach is more effective in addressing the issue of rising living costs.
Content/ key words	1. Real wage growth = Nominal wage growth > rate of Inflation 2. Higher living costs = Rising GPL leads to reduced purchasing power 3. Supply-side policies Policies that shift LRAS/SRAS (e.g. training, innovation, tax incentives)
Context	"for countries" means students need to apply own knowledge to give real world examples

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R1: Explain how specific supply-side policy can help to increase real wage and thus deal with higher living costs (must include this since it is in the question requirement)

R2: Explain how an alternative policy can deal with higher living costs eg. increase real income or reduce GPL

Possible policies to consider

Expansionary MP dep ER increase Real NY	Expansionary MP lower i/r increase real NY	Expansionary FP increase G and reduce taxes increase real NY	Transfer payments already discussed in part d) [weak choice, narrow scope of economic reasoning]
Contractionary MP app of ER reduces imported cost push inflation reduce GPL but weak choice as real NY falls	Contractionary MP increases i/r reduces GPL but weak choice as real NY falls	Contractionary FP reduce G and increase tax reduce GPL [weak choice, as real NY falls]	Minimum wage raise purchasing power [weak choice, narrow scope of economic reasoning]

Root cause: Due to the disrupted supply chain, there is an increase in cost push inflation as a result of rising food prices and increasing global energy prices. Since these goods and services take up a large portion of consumer's expenditure, the heightened inflation erodes the purchasing power and raise the cost of living in Singapore. [Extract 8]

R1: SS side policies eg. Reskilling increase real wage growth

Real wage growth can be achieved via government training grants on the course fees for the lower income group to acquire more industry-related skills. These initiatives will help to raise the productivity of workers to find their niches, seize opportunities in growth areas and remain relevant and employable in Singapore economy. Workers get to enjoy funding support for training programmes and by upgrading the skills of workers, they become more productive as they can generate more output per unit of worker. With relevant skills, workers have greater ability to find jobs and to move to higher value industry. The increase in demand for their labour services will help to uplift the low skilled workers, leading to an increase in nominal wages of these workers, from W_0 to W_1, who initially lack the skills but had now obtained relevant skills.

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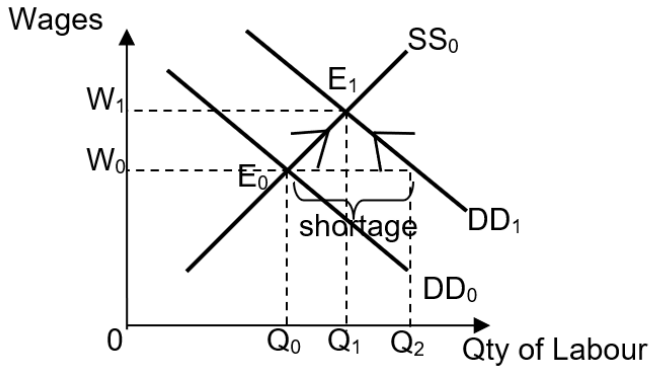

When increase in nominal wages is greater than the rate of inflation, real wages increase, helping workers cope with higher living costs as their higher real income enables them to afford goods and services despite the rise in prices.

Limitations of training programs

However, there are some limitations to such training programs. The effectiveness of skills upgrading largely depends on the mindset as well as receptivity of workers. This is especially for low-skilled and older workers, who may not actively sign up for such retraining and skills upgrading programmes as they may perceive retraining as more challenging due to concerns about their ability to adapt to new technologies or learn new skills. They may also worry about the age-related biases in the job market. Hence, such schemes may not necessarily achieve the intended effects of increasing the skills level of such workers. Without upgrading their skills, they would have a lower chance of experiencing real wage growth to help them cope with higher living costs.

Besides, skills training and upgrading is long term in nature as it takes time to acquire new skills and to be adapt at them. The complexity of the subject matter and the depth of mastery required may lead to a longer duration of the retraining process. Hence, the policy may not be effective in helping workers deal with the immediate issue of higher living costs.

R2: Depreciation of currency can be used to manage increasing cost of living by increasing real national income

To deal with the rising cost of living, countries that are more trade dependent can depreciate its currency.

For example, a depreciation of the Singapore dollar (i.e. a lower exchange rate) reduces the foreign currency price of Singapore's exports and raises the domestic price of imports. Quantity demanded for exports fall while quantity demanded for imports increase. Since Singapore's exports have substitutes in the form of exports from other countries, the Marshall-Lerner condition, where the sum of PEDx + PEDm > 1, is likely to be satisfied. Thus depreciation will lead to an increase in the value of net exports (X−M), leading to an increase in AD.

The increase in AD due to the increase in net exports is shown by the rightward shift of the AD curve from AD_0 in the diagram below. Increase in AD results in unplanned stock depletion and firms would step up production. The rise in production leads to a rise in factor payment to workers and increase in household income. The increase in income triggers the multiplier

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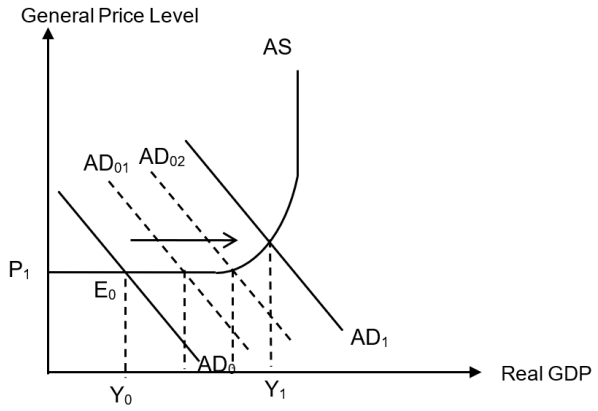
process where there will be a rise in induced consumption on domestically produced goods and services. There will be rounds of spending and re-spending but also increase in savings, payment of taxes and expenditure on imports. This is the multiplier process shown by the rightward shift from AD_0 to AD_{01} and AD_{02} and eventually to AD_1, whereby the increase in AD from rise in net exports results in a multiplied increase in the national income from Y_0 to Y_1.

The increase in real national income implies that households generally experience higher real wages or disposable income and improved purchasing power. **When their income grows faster than inflation, allowing them to afford more goods and services despite rising prices.**



Additionally, as real national income increase, government can collect more tax revenue, enabling it to fund targeted subsidies or transfer payments to further ease cost-of-living pressures.

[Limitations]
One key limitation of currency depreciation is its potential to worsen living costs through imported cost-push inflation. When the domestic currency weakens, the price of imported goods and inputs such as fuel, food, and raw materials rises in domestic currency. This increases firms' production costs, which are often passed on to consumers in the form of higher prices, leading to a rise in the general price level (GPL).

If the economy is heavily reliant on imports, especially for essential goods, this inflationary pressure can be significant. The resulting cost-push inflation erodes real incomes, particularly for lower-income households, and may offset any gains from increased net exports or real GDP growth. In such cases, depreciation may unintentionally exacerbate the problem of higher living costs especially if wage growth does not keep pace with inflation.

Overall EV
[Weigh, time period]

Supply-side policy to increase real wage growth is the best way for a country to deal with higher living costs as it offers a more sustainable solution to address higher living costs because it directly increases individuals' purchasing power without distorting market signals or relying on short term policies. This is particularly crucial for countries like Singapore as it transitions towards a higher value-added economy. The Progressive Wage Model exemplifies this approach, ensuring wage growth is tied to productivity and skills enhancement.

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Furthermore, the limitation in terms of poor receptivity towards skills training is not likely to be prevalent in Singapore. SkillsFuture has been implemented in Singapore for the past decade and the concept of lifelong learning is not unfamiliar to Singaporeans. Singaporeans generally appreciate the value of upgrading and acquiring new skills and would be willing to participate in training to increase their real wage growth. Furthermore through its fiscal prudence, the Singapore government has the budget to provide grants for such skills training.

However for countries without the sufficient budget, or faced with a population that is less receptive to skills training, a more direct contractionary policy to control inflation and reduce living costs may be more appropriate.

Mark Scheme

Knowledge, Application, Understanding and Analysis		
L2	Answer that shows developed analysis of how real wage growth is achieved via supply side policies and how another policy eg. ER/ FP/ FTA helps to address higher living costs	4-7
L1	Answer that has limited knowledge on how supply side policies improve real wage growth.	1–3
Evaluation		
E	Evaluation marks will be awarded for a judgement on whether supply side policies are the best way to manage higher living costs.	1-3

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