



HWA CHONG INSTITUTION
C2 Preliminary Examinations
Higher 2

CANDIDATE NAME

CT GROUP

CENTRE NUMBER

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INDEX NUMBER

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ECONOMICS
Paper 1 Case Study Questions

9757/01
23 August 2018
2 hours 15 minutes

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

Write your **name, CT group, Centre and Index numbers** clearly in the spaces at the top of this page and on every page you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use an HB pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid and tape.

Answer **all** questions.

Begin Question 2 on a fresh sheet of writing paper.

At the end of the examination, fasten your answers to Question 1 and Question 2 **separately**.

The number of marks is given in brackets [] at the end of each question or part question.

You are advised to spend several minutes reading through the questions before you begin writing your answers.

You are reminded of the need for good English and clear presentation in your answers.

This document consists of **8** printed pages.

[Turn over

Answer **all** questions**Question 1: Waste Recycling****Extract 1: US recyclers battered by global commodity plunge**

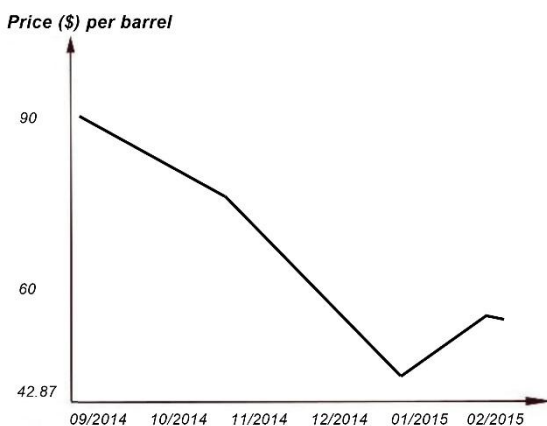
US recyclers are fighting to stay alive. Prices for new materials have fallen so much in the past few years that recycled materials have lost their edge in the market. Besides, some states such as California had cut their subsidies in state-run recycling programs.

Global forces have put the squeeze on recyclers. Growth in China, the largest buyer for several types of recycled materials, has slowed significantly. Beijing even erected a so-called "Green Fence," which enacted standards on imports of Americans' recycling. Add to that a strong dollar, which makes buying U.S. materials more expensive for customers in other countries.

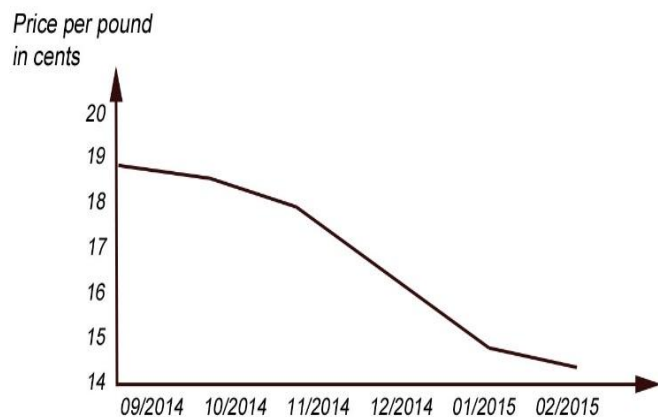
Meanwhile, oil prices have dropped to the lowest level in around 13 years. This is expected to have a further negative effect on the price paid for recycled materials such as recycled plastics. As new plastics, which are produced from petroleum, become more cheaply available, manufacturers buy less recycled plastics.

"Being green costs money," laments Waste Management CEO David Steiner. "When prices are high we'll pay you to recycle. When prices are low we have to charge you," Steiner says.

Sources: *The Seattle Times*, 5 March 2016 and *Forbes*, 14 September 2016

Figure 1: Price of Crude Oil

Source: *US Department Of Energy*

Figure 2: Price of Recycled Plastics

Source: *SecondaryMaterialsPricing.com*

Extract 2: The benefits of recycling

Recycling is the process of turning old used materials into new ones. Through recycling, energy and raw materials are saved. Moreover, studies have shown that for every one job in waste management there are four jobs in recycling. Jobs would be created by a new breed of companies that embrace recycling and servicing goods to prolong their lifespan. Examples include designing goods that last longer and can be repaired easily. It has been estimated that recycling and remanufacturing industries create more than \$1 billion in revenue and hundreds of thousands of jobs. According to the Darla Moore School of Business, if just one percent of all households in South Carolina were to recycle an additional eight newspapers per month, it could mean a gain of \$3.8 million in economic activity annually for the state.

Recycling reduces pollution because manufacturers are reusing materials instead of creating new ones, and toxic chemicals and greenhouse gases are not released into the atmosphere through incineration. Recycling also prevents hazardous waste from being dumped in landfills which can potentially contaminate water sources. Increasingly, many countries including the US have turned to recycling given the high opportunity cost of using precious land for the disposal of waste in landfills. Indeed, recycling is better than landfill, because it replaces new materials in the manufacturing process.

From the perspective of sustainable development, recycling helps to prevent resource destruction. It takes 4.4 tons of trees to create one ton of paper pulp, and recycled paper reduces solid waste by 29%. Meanwhile, recycling one ton of plastic bottles conserves about 3.8 barrels of oil.

Sources: *Institute For Local Self-Reliance*, 22 December 2016, *Renewable Resources Coalition*, 15 December 2016, *Eco Cycle Solutions*

Extract 3: Problems with recycling

The standard waste hierarchy generally demarcates between waste avoidance and waste management, with recycling squarely in the waste management zone. But recycling sits fairly low down the waste hierarchy. Reducing total waste created in the first place and reusing material as many times as possible, are higher up in the hierarchy as compared to recycling.

Besides, recycling process still consumes energy (and other resources) and costs money. In order to repurpose certain recycled materials, separate manufacturing plants need to be built and used. This would counteract the advantage recycling has in creating less pollution, since more may actually be generated as a result of the additional factories.

Recycling sites are also commonly unsafe. As with any waste, materials to be recycled have to be transported and processed somewhere. This means creating additional locations of potentially hazardous waste. These heaps of trash are grounds for bacteria, disease, and a laundry list of other unsafe conditions. In addition to this, recycling sites are also industrial plants. This means they are not without their own forms of pollution.

So recycling needs to be seen as what is – a last line of defence. Minimising waste is more important than managing it, and we need to keep our focus there.

Source: *Renewable Resources Coalition*, December 2016, Planet Green Recycle

[Turn over

Extract 4: How Pay-As-You-Throw works

Traditionally, residents pay for waste collection through property taxes or a fixed fee, regardless of how much trash they generate. Pay-As-You-throw (PAYT) breaks with tradition by treating trash services just like electricity, gas, and other utilities. Households are charged based on the amount of household trash they throw away. They would then purchase trash bags that correspond to the weight and size of the trash that they dispose. This creates a direct economic incentive to recycle or reuse more, and to generate less waste.

One of the most important advantages of a variable-rate program may be its inherent fairness. When the cost of managing trash is hidden in taxes or charged at a flat rate, residents who recycle and prevent waste subsidise their neighbours' wastefulness. Under PAYT, residents pay only for what they throw away.

Source: *United States Environmental Protection Agency*

Questions

- (a) (i) State the relationship between the price of crude oil and the price of recycled plastics shown in Figure 1 and Figure 2. [1]
- (ii) With reference to Extract 1, explain how a fall in the price of crude oil might impact the price of recycled plastics. [3]
- (b) Explain what Waste Management CEO David Steiner meant when he said, "when prices are high we'll pay you to recycle. When prices are low we have to charge you." [2]
- (c) Use the concept of opportunity cost to explain **two** reasons why many countries have turned to recycling instead of disposing their waste in landfills mentioned in Extract 2. [4]
- (d) Explain why waste collection paid through a flat fee results in residents who "recycle and prevent waste subsidise their neighbours' wastefulness". [2]
- (e) Assess the extent to which the promotion of recycling can help to achieve sustained and sustainable growth in the US. [8]
- (f) Discuss whether it would be more effective for the government to subsidise recycling or implement PAYT to address waste pollution. [10]

[Total: 30]

Question 2: China's Slowdown on Tourism, Infrastructure and Trading Partners

Table 1: Selected Economics Indicators for China, 2013 to 2016

	2013	2014	2015	2016
Real GDP growth (%)	7.8	7.3	6.9	6.7
Unemployment (%)	4.1	4.1	4.1	4.0
Inflation (CPI, %)	2.5	1.5	1.6	2.1
Exchange Rate (Renminbi per USD)	6.15	6.16	6.28	6.64
Current Account Balance (US\$billion)	148	236	304	202
Fiscal balance (change in %)	-1.9	-1.8	-3.4	-3.8

Source: *Focus Economics*

Extract 5: Chinese travellers set a new record for global tourism spending in 2016

The expenditure on tourism for Chinese travellers venturing abroad was US\$261 billion in 2016. Approximately 135 million Chinese travelled outside China last year, a 6 percent increase.

Chinese travellers were the second largest market, after the United States, for their contribution to global tourism in 2016. The World Travel & Tourism Council projects that China will be one of the 10 fastest growing markets for leisure travel spending through 2026.

Japan, Korea and Thailand benefited the most from outbound Chinese tourist spending and the U.S. and Europe also saw more spending from China. There has been an increased Chinese spending in Europe as more Chinese travellers reconsider the continent for trips in place of the usual Asian countries.

Source: United Nations World Tourism Organisation

Extract 6: Should we charge tourists a higher price than we do for locals

Tourism has long been regarded as a vehicle of economic prosperity and source of increased revenue. It is one of the world's largest industries, with a global economic contribution of over US\$7.6 trillion. The United Nations World Tourism Organisation forecasts that by 2030, the number of international tourist arrivals will reach 1.8 billion. With one in ten jobs on the planet reliant on tourism (that's 292 million people) and an equivalent worth of 10 per cent of global GDP, there is little wonder that host communities want to make the most of the opportunities it brings.

Recently, it was reported that some cafes in Belgium's Bruges are charging tourists 10 per cent more than locals for chips, and food and goods are also considerably higher for tourists in cities like Rome. Asian travellers especially from China could face even higher prices due to their perceived wealth. One of the most famous places for hiking prices up for visitors is Venice in which foreign tickets can cost 6 to 10 times more than local price. The city's "two-tier payment system" became so extreme that a complaint reached the European Commission in 2015 which claimed discriminatory practices against tourists. In the long run, such pricing

policy can hurt economies because tourists are less motivated to visit those countries again in the future.

[Turn over

Indeed a two-tier tourism payment system may be deemed unfair. But if locals had to start paying the same prices as tourists, it's likely that many of them would be prevented from enjoying heritage sites in their own communities. Furthermore, it may be one sustainable tourism practice to protect valuable resources as more money collected from the tourists could be used to maintain heritage sights. Thus expecting tourists to pay a little more to protect and maintain the sites they enjoy is morally defensible – whether this be Bruges, Venice or Rome.

Source: *Channel News Asia*, 6 July 2017

Extract 7: The investment addiction in China persists and only the rich are spending more

Generally, emerging economies rely on investment and exports, before shifting to consumption-driven models as they mature. Chinese President Xi Jinping has emphasized this transition as a key to achieving "high-quality development." And global companies have been swooping in, determined to cash in on a Chinese consumption boom.

Even if overall consumption is contributing more to GDP now, China is still heavily dependent on investments and government infrastructure projects and continues to grapple with the side effects of its addiction.

Since 2008, when Beijing countered the global financial crisis with a stimulus package worth 4 trillion yuan (\$610 billion at the current rate), investment has continued to account for more than 40% of GDP. This is an unusually high percentage for a large economy. The comparable figures for developed countries are around 20%.

No country has built so many roads, bridges and airports as quickly as China. Anne Stevenson-Yang, research director at J Capital Research, an economic research firm in Beijing, says the government has simply built too much. For example, in the city of Luliang in the inland province of Shanxi, a \$160 million airport, which opened in 2014, gets at most five flights a day and as few as three. Another symbol of the investment addiction can also be found in "China's Manhattan." Tianjin's Conch Bay, a 110-hectare district with a cluster of 40 high-rise buildings, was supposed to be the country's new financial capital as outlays surged over the past several years. But there were few signs of life. A number of buildings were still under construction; the streets were empty; and even completed buildings had no occupants. There are numerous examples of such projects throughout China that are underutilised.

On the other hand, consumption in China appears to be gathering steam, as exemplified by strong online shopping sales on the Nov. 11 Singles Day. But total retail sales of consumer goods increased just 8.8% in real terms in November 2017, which was much slower than the 12% growth in 2012.

Consumption patterns suggest that the masses are reluctant to spend, while the upper and middle classes are doing most of the buying. Sales of instant noodles, a staple for households with lower incomes, have declined for three years in a row. The Chinese beer market also has seen a three-year decline, yet demand for premium beer is robust. Therefore, although it may

look like consumption is becoming a stronger driver of the economy, the wealthy are playing a disproportionate role.

Source: *Nikkei Asian Review*, 26 December 2017 and *National Public Radio*, 15 October 2015

Extract 8: China slowdown is biting Singapore economy amid demographic crunch

The economy of tiny Singapore is taking a big hit from the slowdown in China, an impact coming just as the city-state is struggling with a homegrown demographic squeeze.

Buying and selling goods is a crucial driver of growth for Singapore's economy: companies based on the island supply components that go into smartphones made in China and the shipping industry helps transport raw materials across the world. This makes Singapore particularly susceptible to the weakness in China's economy.

It's a slowdown immediately apparent in data released earlier this week. Singapore's non-oil domestic exports (NODX) contracted 7.2 percent on-year in December, accelerating the decline from November's 3.4 percent fall. Exports to China fell nearly 19 percent on-year in December.

The picture is complicated by the city-state's looming demographic crunch. By 2030, the number of people over the age of 65 in the city-state is expected to double, making up around 20 percent of the population. At the same time, fewer babies are being born. Singapore's fertility rate was only 1.2 births per woman in 2013, according to World Bank data. That's not just below the replacement rate of 2.1, it's below even famously aging Japan's rate of 1.4 and puts the city-state only fourth from last globally.

Singapore had hoped to resolve this problem of falling birth rates and aging by opening up its borders and allowing immigrants to come in. That surge outpaced the addition of new infrastructure and housing, leading to overcrowded public transportation systems and fast-rising housing prices. However, migrant numbers had slowed down in recent years due to local discontent.

Singaporeans are a practical and pragmatic people. As the population ages, many expect the immigration faucet to turn back on eventually to address economic and social needs such as caregiving.

Source: *CNBC*, 20 January 2016

[Turn over

Questions

- (a) Using the information in Table 1 and Extract 5,
- (i) calculate and interpret the likely value of income elasticity of demand for Chinese outbound tourism in 2016. [2]
 - (ii) explain how the rise in Chinese outbound tourism might contribute to the value of the Renminbi against the USD from 2013 to 2016. [2]
- (b) Explain how an increasing preference for outbound tourism might change China's multiplier value. [2]
- (c) (i) Use an aggregate demand and aggregate supply diagram to explain why investments and government infrastructure projects have led to excess capacity in China described in Extract 7. [3]
- (ii) Explain why the change in the fiscal balance in Table 1 suggests China's government spending on infrastructure projects might not be optimal. [3]
- (d) Discuss whether the practice of a 'two-tier payment system' is, on balance, beneficial to the consumers, firms and recipient country. [8]
- (e) Assess whether the Singapore government should be more concerned with the impact of China's economic slowdown on the economy or the demographic challenges. [10]

[Total: 30]

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(a)	(i)	State the relationship between the price of crude oil and the price of recycled plastics shown in Figure 1 and Figure 2.	[1]
		<ul style="list-style-type: none"> • Positive or direct relationship 	
	(ii)	With reference to Extract 1, explain how a fall in the price of crude oil might impact the price of recycled plastics.	[3]
		<ul style="list-style-type: none"> • Oil is a key input in the manufacture of new plastics, so when the price of oil falls, the cost of production of new plastics falls. This raises the supply and lowers the price of new plastics (1m). • From Extract 1, as recycled plastic is a substitute for new plastic, when the price of new plastic falls, producers of goods using plastics will switch from the buying recycled plastics to new plastics (1m) • This causes the demand and hence the prices for recycled plastic to fall (1m) 	
(b)		Explain what Waste Management CEO David Steiner meant when he said in Extract 1, "when prices are high we'll pay you to recycle. When prices are low we have to charge you."	[2]
		<ul style="list-style-type: none"> • TR = revenue earned from selling recycled materials • TC = cost of buying recyclable waste + cost of processing such waste • High prices of recycled materials => TR exceeds the cost processing recyclable waste => waste management firms are willing to pay for recyclable waste. (1m) • Low price of recycled materials => TR falls below processing costs => waste management firms need to charge for the collection of for recyclable waste to avoid making losses. (1m) 	
(c)		Use the concept of opportunity cost to explain <u>two</u> reasons why many countries have increasingly turned to recycling instead of disposing their waste in landfills mentioned in extract 2.	[4]
		<ul style="list-style-type: none"> • "Precious land" in Extract 3 suggests that land is limited so when a piece of land is used as a landfill, there is a high opportunity cost in terms of the next best alternative forgone, which could be some residential, industrial or commercial development. As recycling of waste reduces the need for landfills, this frees up land for such alternative uses. (2m) • Recycling also "replaces new materials in the manufacturing process" thus reducing the demand, extraction and hence depletion of such non-renewable natural resources, which also has high opportunity costs in terms of other goods that could have otherwise been produced. (2m) <p>Other possible answer:</p> <ul style="list-style-type: none"> • Recycling reduces environmental damage caused by landfills. As such, this free up government spending that was originally spent on reducing pollution to be used for next best alternative such as spending on healthcare. 	
(d)		Explain why waste collection paid through a flat fee results in residents who "recycle and prevent waste subsidizing their neighbors' wastefulness".	[2]

	<ul style="list-style-type: none"> • With a fixed fee charged for all households, those who generate more waste could be paying less than the cost of disposing their waste while those who generate less waste could be paying more than the cost incurred from disposing their waste (1m) • As residents who recycle and prevent waste are likely to generate less waste while those who do not are likely to generate more waste, the profits earned by the recycling firm from the former are therefore used to subsidize the losses incurred from providing waste disposal services to the latter (1m) 	
(e)	<p>Assess the extent to which the promotion of recycling can help to achieve sustained and sustainable growth in the US.</p>	[8]
	<ul style="list-style-type: none"> • Sustained growth refers to a positive and stable rate of growth that can be maintained over a prolonged period. • Sustainable growth refers to growth which is achieved without significantly creating other economic problems like the depletion of resources and environmental degradation that will reduce the welfare of future generations. <p><u>Thesis: Recycling promotes sustained and sustainable growth in the US</u></p> <p>Sustained growth</p> <ul style="list-style-type: none"> • Recycling sector generates investments and jobs in the recycling and remanufacturing sectors like the designing of long lasting and more repairable goods (extract 2) • Such investments in the recycling sector raises AS and also through the multiplier effect raise overall consumption, AD, output and growth throughout the economy, hence promoting sustained growth <p>Sustainable growth</p> <ul style="list-style-type: none"> • Recycling reduces the need for landfills, thus preventing environmental degradation through possible contamination of water sources through seepage (extract 2) • Recycling also reduces environmental degradation through air pollution because it prevents toxic chemicals and greenhouse gases from being released into the atmosphere due to the incineration of waste (extract 2). • Recycling reduces the depletion of natural resources as it lowers the demand and extraction of energy and raw materials like fossil fuels and trees/forests that are often non-renewable in nature (extract 2) <p><u>Anti-thesis: Recycling harms sustained and/or sustainable growth in the US</u></p> <p>Sustained growth</p> <ul style="list-style-type: none"> • Promoting recycling will result in reduced demand, output and employment for firms and workers belonging to the sectors involved in the extracting and processing of new natural resources <p>Sustainable growth</p> <ul style="list-style-type: none"> • Resource depletion - the recycling process still consumes energy (and other resources) as separate manufacturing plants need to be built and used (extract 3) • Environmental degradation - recycling sites are polluting as they have “heaps of trash that are grounds for bacteria, disease, and a laundry list of other unsafe conditions” and they are also industrial plants that generate their own forms of pollution (extract 3) 	

	<p><u>Conclusion / Evaluation</u></p> <ul style="list-style-type: none"> • In terms of <u>sustained growth</u>, if the estimates of the generation of \$1 billion in revenue and hundreds of thousands of jobs as mentioned in extract 2 are accurate, the impact on sustained growth is likely to be <u>substantial</u> • As for <u>sustainable growth</u>, given that resource depletion and environmental degradation can be prevented when goods are reused rather merely being reduced when they are recycled, the impact of recycling is arguably <u>much more limited in comparison</u>. <p>Mark Scheme</p> <table border="1"> <tr> <td data-bbox="220 562 379 763">L2: (4-6)</td> <td data-bbox="379 562 1334 763"> <ul style="list-style-type: none"> • Provides a balanced response (i.e. both thesis and anti-thesis) • Covers sufficient scope i.e. considers the impact on both sustained and sustainable growth • Applies case evidence to support answers • Applies economic concepts or theories • Demonstrates sufficient depth and rigour in the analysis </td> </tr> <tr> <td data-bbox="220 763 379 801">L1: (1-3)</td> <td data-bbox="379 763 1334 801"> <ul style="list-style-type: none"> • Lacking in any of the L2 criteria </td> </tr> <tr> <td data-bbox="220 801 379 869">E (+2)</td> <td data-bbox="379 801 1334 869"> <ul style="list-style-type: none"> • Evaluates the extent to which recycling promotes sustained <u>or</u> sustainable growth in the US </td> </tr> </table>	L2: (4-6)	<ul style="list-style-type: none"> • Provides a balanced response (i.e. both thesis and anti-thesis) • Covers sufficient scope i.e. considers the impact on both sustained and sustainable growth • Applies case evidence to support answers • Applies economic concepts or theories • Demonstrates sufficient depth and rigour in the analysis 	L1: (1-3)	<ul style="list-style-type: none"> • Lacking in any of the L2 criteria 	E (+2)	<ul style="list-style-type: none"> • Evaluates the extent to which recycling promotes sustained <u>or</u> sustainable growth in the US 	
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E (+2)	<ul style="list-style-type: none"> • Evaluates the extent to which recycling promotes sustained <u>or</u> sustainable growth in the US 							
(f)	<p>Discuss whether it would be more effective for the government to subsidize recycling or implement PAYT to address waste pollution.</p>	[10]						
	<p><u>How does subsidizing recycling work and what are its limitations?</u></p> <ul style="list-style-type: none"> • Waste pollution occurs because of air pollution arising incinerated waste and water pollution arising from landfills • With more waste being recycled, less waste is incinerated and diverted to landfills hence recycling generates positive externalities as it reduces pollution associated with such activities • Recycling thus benefits 3rd parties like the people staying near incineration plants and landfills as they will experience less pollution. • In the market for recycling, positive externalities => $SMB > PMB$ by EMB resulting in underproduction, so subsidizing recycling thus lowers PMC to PMC' such that the private equilibrium coincides with the social equilibrium (illustrate with diagram) • Limitations: <ul style="list-style-type: none"> ○ When prices of recycled materials fall, recycling becomes less profitable and waste management firms may decide to collect or process less recyclable waste (extract 1), resulting in more waste being incinerated or diverted to landfills ○ Although subsidies will reduce the likelihood and extent, it does not prevent this from happening, so overall waste incineration and dumping may still increase despite such subsidies. <p><u>How does PAYT work and what are its limitations?</u></p> <ul style="list-style-type: none"> • Whether waste is incinerated, dumped or recycled, pollution and resource depletion will occur so waste generates negative externalities • With a flat fee being charged for waste collection and disposal, the marginal cost of disposing an additional unit of waste would be zero, thus firms and households have no incentive to generate less waste, hence resulting excessive waste generation • By implementing PAYT, firms and households are charged based on the amount of waste thrown, which creates an incentive for them generate less waste 							

- Less waste can be generated by not only recycling more, but also reusing rather than disposing existing goods, buying goods which generate less waste (e.g. less packaging) or by switching to less wasteful production methods and lifestyles
- Limitations:
 - Even with PAYT, the cost of waste disposal may still constitute a small proportion of income for the average household, especially for a rich developed country like the USA, so the incentive for households to cut down on waste generation may be less than expected

Conclusion:

- Although both policies have their limitations, PAYT is likely to be overall more effective because it will always provide some incentive for firms and households to cut waste, which can occur through a variety of ways in addition to recycling.
- In contrast, subsidies only promote recycling and has no impact on other ways of reducing waste, so it can be totally ineffective when prices of recycled materials were to fall drastically

Mark Scheme

L2: (5-7)	<ul style="list-style-type: none"> ● Provides a balanced response that considers how subsidies and PAYT address waste pollution. ● Limitations of policies are well considered. ● Analyses with depth and rigour ● Supports answers with case evidence ● Applies economic concept and theories
L1: (1-4)	<ul style="list-style-type: none"> ● Lacking in any one of the L2 criteria
E: (+3)	<ul style="list-style-type: none"> ● Evaluates which of the two policies is more effective and likely to be preferred solution to address waste pollution.

(a)	Using the information in Table 1 and Extract 5,		
	(i)	calculate and interpret the likely value of income elasticity of demand for Chinese outbound tourism in 2016.	[2]
		<p>Calculation</p> <ul style="list-style-type: none"> • Income elasticity of demand = % change in Qd / % change in Y = 6 / 6.7 = 0.90 [1] <p>Interpretation</p> <ul style="list-style-type: none"> • Chinese outbound tourism is considered a necessity as it positive income inelastic.[1] 	
	(ii)	explain how the rise in Chinese outbound tourism might contribute to the value of the Renminbi against the USD from 2013 to 2016.	[2]
		<ul style="list-style-type: none"> • Renminbi (RMB) depreciated against the USD as seen in Table 1 [1]. • Rising outbound tourism means that Chinese tourists will exchange more RMB for foreign currencies like the USD to spend on their trips, thus raising the supply of the RMB in the FOREX market [1] <p><i>(Although tourism expenditure is conceptually considered as spending on the service imports, there is no need for this to be explicitly mentioned for full credit to be awarded.)</i></p>	
	(b)	Explain how an increasing preference for outbound tourism might change China's multiplier value.	[2]
		<ul style="list-style-type: none"> • With rising preference for outbound tourism, Chinese households will spend a greater proportion of every additional RMB earned on foreign goods and services, which are withdrawals from the circular flow [1] • This will raise China's marginal propensity to withdraw (MPW), hence lowering its multiplier value since $k = 1 / MPW$ [1]. <p><i>(Answers which explain why MPM may rise or why MPC may fall are also acceptable. However, to get full credit, these terms must be explicitly mentioned. Answers which show a clear understanding of the multiplier process can still be awarded full credit even if there is no mention of any form of multiplier formula)</i></p>	
	(c)	(i) Use an aggregate demand and aggregate supply diagram to explain why investments and government infrastructure projects have led to excess capacity in China described in Extract 7.	[3]
		<ul style="list-style-type: none"> • Rising investments and government spending on infrastructure raises AD through its I and G components and also AS through greater capital accumulation [1] • However, excessive and indiscriminate investments could have caused AS to rise faster than in AD thus causing excess capacity to arise (or causing the extent of excess capacity to increase) [1] • Diagram showing AS shifting right more than AD resulting in a larger gap between actual and the full employment output levels [1] <p><i>(Diagrams which do not <u>explicitly show</u> the change in the gap between actual and full employment output levels will not be credited)</i></p>	

(ii)	Explain why the change in the fiscal balance in Table 1 suggests China's government spending on infrastructure projects might not be optimal.	[3]
	<ul style="list-style-type: none"> ● Table 1 showed the possibility of a rising fiscal deficit or decreasing fiscal surplus or [1], which suggests that government spending on infrastructure has been rising faster than tax revenues [1] ● Such spending is not optimal as it has failed generate enough economic growth to enable tax revenues to rise sufficiently to pay for such spending [1] <p>OR</p> <ul style="list-style-type: none"> ● Table 1 shows a rising fiscal deficit or decreasing fiscal surplus which could be due to rising government spending on infrastructure [1] ● However such spending was sub-optimal / excessive / wasteful because it resulted in many underutilized airports and buildings (extract 7) [1] <p><i>(The use of the term 'worsening balance' is acceptable for 1st mark. The 2nd answer will not score full marks because it does not address tax revenues which is the other aspect of a fiscal balance besides government spending)</i></p>	
(d)	Discuss whether the practice of a 'two-tier tourism payment system' is on balance, beneficial to the consumers, firms and recipient country.	[8]
	<p>Introduction</p> <ul style="list-style-type: none"> ● As tourism accounts for 10% of all jobs and output globally (extract 6), tourism is an undoubtedly an important industry for many countries ● The 'two-tier tourism payment system' is a form of price 3rd discrimination (PD), which occurs when different groups of consumers are charged different prices for the same product for reasons not associated with differences in costs. ● Given the importance of tourism on any economy, the impact of such PD on consumers, firms and the recipient country needs to be carefully analyzed <p>Consumers</p> <ul style="list-style-type: none"> ● The demand by tourists is likely to be less price elastic: <ul style="list-style-type: none"> ○ They may be more well-off and hence the entrance fees of the attractions form a relatively small proportion of their income ○ They may consider such attractions as 'must-sees' or necessities since they may not get chance to do so once they leave the country ● On the other hand, the demand by locals is likely to be more price elastic because they may be poorer and they can always visit such attractions when they are free so there is a low degree of necessity ● Since locals are charge lower prices than tourists, local consumers will benefit while foreign consumers will suffer from such PD. <p>Firms</p> <ul style="list-style-type: none"> ● According to economic theory, PD enables firms to earn higher profits as compared to charging a single price for all consumers, hence firms should benefit from the 2 tier payment system ● However, if firms were to be too extreme in their PD e.g. those in Venice, this might result in complaints to regulatory bodies like the European Commission, which might then clamp down on such practices (extract 6) thus causing their profits to fall instead <p>Recipient country (economy)</p> <ul style="list-style-type: none"> ● As such PD enables firms to earn more revenue from tourists, this will boost AD which through the multiplier effect will generate higher output, income and employment throughout the economy ● However if the PD were to be too extreme, this may tarnish the reputation of 	

	<p>the recipient country, thus causing tourist arrivals and spending to fall in the long run, which will instead adversely affect output, income and employment</p> <p>Conclusion / Evaluation</p> <ul style="list-style-type: none"> • Unless the difference between local and tourist price is unreasonably large, my view is that a 2 tier payment system should overall be beneficial • This is especially so if the extra revenue from PD is used to better maintain the heritage sites (extract 6) as this will enable tourism growth to be more sustainable, thus benefiting all consumers, firms as well as the recipient country in the long run. <p>Mark Scheme</p> <table border="1" data-bbox="279 571 1332 913"> <tr> <td data-bbox="279 571 391 739">L2: (4-6)</td> <td data-bbox="391 571 1332 739"> <ul style="list-style-type: none"> • Analyses the impact on consumers, firms <u>and</u> the recipient country. • Provides a balanced response with positive and adverse impacts* • Applies the economic concepts of PD and PED** • Elaborates with sufficient rigour and detail • Supports answers with case evidences </td> </tr> <tr> <td data-bbox="279 739 391 806">L1: (1-3)</td> <td data-bbox="391 739 1332 806"> <ul style="list-style-type: none"> • Lacking in anyone of the L2 criteria </td> </tr> <tr> <td data-bbox="279 806 391 913">E: (+2)</td> <td data-bbox="391 806 1332 913"> <ul style="list-style-type: none"> • Takes a substantiated stand on whether the 2 tier payment system is individually / collectively beneficial for consumers, firms and the recipient country </td> </tr> </table> <p>*For full L3 marks to be awarded, positive and adverse impacts need to be presented for each and all parties **Analysis without PED will be capped at 4m</p>	L2: (4-6)	<ul style="list-style-type: none"> • Analyses the impact on consumers, firms <u>and</u> the recipient country. • Provides a balanced response with positive and adverse impacts* • Applies the economic concepts of PD and PED** • Elaborates with sufficient rigour and detail • Supports answers with case evidences 	L1: (1-3)	<ul style="list-style-type: none"> • Lacking in anyone of the L2 criteria 	E: (+2)	<ul style="list-style-type: none"> • Takes a substantiated stand on whether the 2 tier payment system is individually / collectively beneficial for consumers, firms and the recipient country 	
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(e)	<p>Assess whether the Singapore government should be more concerned with the impact of China’s economic slowdown on the economy or the demographic challenges.</p>	[10]						
	<p>How could China economic slowdown adversely affect the Singapore economy?</p> <ul style="list-style-type: none"> • Economic slowdown in China → ↓ income → ↓M and ↓ outward FDI • China is a major export market for Singapore => Singapore experiences large ↓X & ↓I → ↓AD → ↓output and employment → ↑unemployment • ↓X → ↓(X-M) → ↓BOT → ↓BOP • ↓Inward FDI → worsening of capital and financial account → ↓BOP <p>How could changing demographics adversely affect the Singapore economy?</p> <ul style="list-style-type: none"> • Aging population → ↓C → ↓AD → ↓ output and employment • Aging population → shrinking labour force → ↓ quantity of labour → ↓AS → ↑GPL and ↓output and employment • Aging population → ↑ public spending on healthcare and ↓ taxes from income and consumption → strain on the government budget → ↓ public spending on other productive areas e.g. education → ↓ potential growth <p><i>(Note: Explanations can be in terms of either reduced output or slower growth)</i></p> <p>Conclusion / Evaluation</p>							

	<ul style="list-style-type: none"> • While China’s economic slowdown would have had a large adverse impact on the Singapore economy in the short run, the long run impact is arguably limited as Singapore can always diversify into other export markets given time • In contrast, while it is always possible for the Singapore to open its “immigration faucet” to mitigate the adverse effects of its aging population, such policies have proven to very unpopular in the past (extract 8) and is likely to face much social and political objections in the foreseeable future • Hence Singapore government should arguably be more concerned about its demographic challenges rather than China’s economic slowdown. <p>Mark Scheme</p> <table border="1"> <tr> <td data-bbox="277 539 379 674">L2 (5-7)</td> <td data-bbox="379 539 1331 674"> <ul style="list-style-type: none"> • Analyses the impact on the Singapore economy of <u>both</u> China’s economic slowdown <u>and</u> its own demographic challenges • Applies relevant economic tools of analysis e.g. AD AS or PPC • Elaborates with sufficient rigour and detail </td> </tr> <tr> <td data-bbox="277 674 379 741">L1 (1-4)</td> <td data-bbox="379 674 1331 741"> <ul style="list-style-type: none"> • Lacking in anyone of the L2 criterions </td> </tr> <tr> <td data-bbox="277 741 379 813">E (+3)</td> <td data-bbox="379 741 1331 813"> <ul style="list-style-type: none"> • Takes a substantiated stand on which problem is of a greater concern for the Singapore government </td> </tr> </table>	L2 (5-7)	<ul style="list-style-type: none"> • Analyses the impact on the Singapore economy of <u>both</u> China’s economic slowdown <u>and</u> its own demographic challenges • Applies relevant economic tools of analysis e.g. AD AS or PPC • Elaborates with sufficient rigour and detail 	L1 (1-4)	<ul style="list-style-type: none"> • Lacking in anyone of the L2 criterions 	E (+3)	<ul style="list-style-type: none"> • Takes a substantiated stand on which problem is of a greater concern for the Singapore government 	
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[Total = 30 marks]