HCI H1 Economics Prelim CSQ2 Suggested Answers

(a)	**(i)**	Explain why interest rates in Singapore would likely to head higher when the Fed raises interest rates.	[3]

SG has free capital mobility (i.e. open to capital flows) [1]
OR
Given Singapore's **trade dependence** (for both imports and exports), exchange rate has a **stronger effect** on Singapore's **macroeconomic aims** than interest rates.

Hence, by choosing to manage its exchange rate, this means that it is impossible for MAS to also control interest rates / SG will be interest rate taker [1]

Therefore interest rates in Singapore generally follow the interest rates of big economies like the US. When US i/r increase, SG i/r increase [1]

Markers' comments

Poorly done question.

Many students explain how Singapore had to increase interest rate or else the capital outflow will depreciate currency. Such answers are attempting to explain why a country can either choose to manage exchange rate or interest rate without stating so. Students could have explained that Singapore has chosen to manage exchange rate given that it has a stronger effect on the economy or explained how we have need free capital flow as a financial hub.

Students' answers	AFIs
When Fed raises interest rates and if Singapore's interest rate is lower, there will be an increase in the capital outflow from Singapore and depreciate the exchange rate. To reduce the effects, Singapore would also raise interest rates.	Such answers are attempting to explain why Singapore can either choose to manage exchange rate or interest rate without stating so. Stronger candidates explain why Singapore chose to be an interest rate taker.
Higher interest rates in US may lead to investors to buy property in Singapore. To maintain the stability of the Singapore property market, Singapore has to increase her interest rates.	i/r policy in Singapore does not revolve around the property market.
As employment increases, national income increases and household income increases. Households will consume more and increase the AD. This will cause demand-pull inflation.	AD does not shift due to changes in national income!!!!!

	(ii)	Use demand and supply analysis to explain how an increase in interest rate mentioned in Extract 5 might affect the total revenue of the housing market and comment whether it has the same impact on the construction industry.	[5]

Explain [3m]
Link higher i/r to more expensive bank loans to a fall in DD for housing (1m)
Lower DD causes both P and Q to fall (1m)
TR which is PxQ will also fall (1m)

Comment [2m]
Fall in equilibrium quantity of housing as explained above would imply a fall in the output for a construction firm, ceteris paribus. (Demand for construction services is a derived demand) This implies a fall in the demand for construction services → Fall in P & Q → Fall in revenue. [1]

But if other sources of revenue such as from commercial building can offset the fall in TR from (residential) housing, TR may not fall (1m)

Markers' comments

a(ii) asked students to use demand and supply to explain how increase in interest rate mentioned in Extract 5 affect total revenue of housing market. In the Extract, it was stated how cost of housing loans will increase and hence, for 3 marks, you should have limited your analysis on how demand will fall.

Some students analysed that i/r will also affect the cost of borrowing for building the houses. Therefore the SS for the housing will fall too due to higher cost of production. The analysis then become a bit more complex as total revenue change will not be so straight forward. Qe will fall but price may fall or rise depending on the relative magnitude of change of SS and DD.

Students' answers	AFIs
Demand falls due to higher cost of borrowing. Supply falls due to higher cost of borrowing too. Given that TR is PXQ and P and Q both falls, TR falls.	Answer did not explain how DD/SS individually affects Price and Quantity. If you choose to analyse SS too, a fall in SS results in an increase in price and a fall in Q. hence the impact on TR is not certain.
TR in the construction industry will fall for sure.	Many students did not consider other sources of demand for the construction services
Higher interest rate means a increase in the cost of borrowing. This leads to a fall in the demand for housing. It will lead to fall in quantity supplied for housing. Total revenue fall.	Using Demand and supply analysis, you have to explain how equilibrium quantity and price fall. Even when the question doesn't require a diagram, it seems that the students who doesn't draw the diagram are more prone to error in analysis. This response also doesn't state that total revenue is PxQ
Construction industry and Housing market are complements	They are not. For this question, when you are analysing the construction industry, state that the demand for construction services is a derived demand for housing industry.

(iii) Explain the likely impact of a rise in US interest rates on Singapore's economic growth in the short run. [4]

Explain how AD of SG is affected [3]
Rise in i/r in US → Fall in AD → Negative growth (in theory) or Slower growth (with reference to case study context) in US
Explain how negative growth/slower growth in US will lead to a fall/slower increase in demand for SG's exports c.p → Fall in AD
OR
Since SG is an i/r taker → i/r in SG will rise. Explain how higher i/r in SG will lead to a fall in autonomous C & I (with reference to MEI) → Fall in AD

Explain impact on economic growth of SG [1]
Fall or Smaller increase in AD in SG → Fall in actual output or slower actual growth in SG
OR
Fall in C & I → Fall in AD in SG → Fall in actual output in SG

Markers' comments

Students' answers	AFIs
The rise in US interest rates will cause short term capital outflow from Singapore. This will result in a depreciation of the Singapore exchange rate…..	Part (a) already states that Singapore's rate will rise with the increase in US interest rate.

(b) In the light of strong employment data mentioned in Extract 5, to what extent would you agree that the Fed should raise interest rates? [6]

Yes – More jobs were created in May and June than previously reported and the economists had forecast an increase in the number of new jobs in July and a fall in unemployment rate → The US is likely to be approaching full employment based on the employment data → The AD could be very near to Yf (very small output gap) and there is lack of excess capacity → Raise i/r to prevent high demand-pull inflation [3]

"The July jobs report was everything you could have asked for and more. Provided the strength in jobs is confirmed with other economic data, the Federal Reserve (Fed) will have sufficient reason to hike rates this year,"

No –

The jobs created are mainly for the nonfarm sectors but the farming industry could still face a high unemployment → The employment data is not sufficient to confirm that the economy is approaching full employment. E.g.inflation figures and inflation targets→ Need to gather other economic data to confirm this → Should not raise i/r now as more information is required to ascertain that the U.S. economy is near to or already at full employment level of output. [2]

OR with the price of oil falling as seen in Figure 1, SRAS may be decreasing in the future if the trend persists that may offset the demand-pull inflation.

OR

Make a stand. [1]

Markers' comments

Students' answers	AFIs
As more people are employed, their purchasing power increased. Consumption increase and AD increase causing demand- pull inflation	Income induced increase in consumption does not cause increase in AD
Anti-thesis: Interest rate policy may not work given the optimism of the economy. Hence, interest rate policy should not be used. Instead supply side policy should be used instead,	Low interest elasticity of the AD components doesn't mean that contractionary monetary policy (raising of interest rate) should not be used. It just means that you have to increase interest rates to have a given effect. Supply side policy can be used to complement monetary policy (interest rate) as it is a long term policy.
Increase in jobs mean that the LRAS is increasing	Increase in jobs don't mean that there are more factors of production.
USA should not increase interest rate as it will cause lower income households to struggle to cope with the higher cost of borrowing.	By this logic, no contractionary policy is possible as it will be harm the poor.
Increase in interest rate will lead to lower C and I, as cost of borrowing will increase….	No need to repeat this analysis that has been done in (a).

(c)	The government spending is expected to be $5 billion higher than in 2015 and the increases are mainly for public infrastructure projects in the healthcare, education, security and urban development sectors (Extract 6).		
	(i)	With reference to Table 2, what can you conclude about the fourth quarter GDP growth rate if Singapore were to slip into a technical recession in 2016? Negative growth rate [1] This is because a country is deemed to be in technical recession if there is negative economic growth for 2 consecutive quarters. [1] Markers' comments	[2]

Students' answers	AFIs
Negative growth.	Failed to explain that technical recession requires 2 consecutive quarters of negative economic growth.
Lower value that the third quarter economic growth	It need not be lower than the economic growth rate. Not clear that you are referring to –ve growth rate especially if the answer did not define technical recession.

	(ii)	Explain **two** reasons why the Singapore government chooses to increase spending on merit goods such as healthcare.	[4]

Government usually spend in the form of subsidies for merit goods, that is, goods deemed by the government as socially desirable but underconsumed when left to the free market.

Positive Externalities of Healthcare [2]

- External benefits are benefits accrued by the third parties *(such as a pool of healthy and productive workforce for the economy)* and hence it results in a divergence between private and social benefits with SMB > PMB
- Explain Qm is at PMB=PMC and Qs is at SMB=SMC leading to underconsumption of healthcare

Imperfect Information for Healthcare [2]

- In the context of healthcare, consumers may not be very well informed of the actual benefits of healthcare (such as vaccination) hence there is a gap between PMBactual and PMBperceived.
- Qm at PMBperceived=PMC is lesser than Qm' at PMBactual=PMC → underconsumption

Markers' comments

A substantial number of students did not seem to understand/ remember what are merit goods. Hence, the sources of market failure of merit goods, which are the reasons

Students' answers	AFIs
Government increase spending on merit goods to increase social welfare/ decrease deadweight loss	The non-maximisation of social welfare is due to the existence of market failure. As there are a few sources of market failure, you should explain the sources that merit goods experience.
Government increasing spending on merit goods is an expansionary fiscal policy to boost the economy,	This is not the objective of government spending on merit goods. It is at best a positive side effect IF the economy needs stimulation.
Government wants to increase equity in the population as merit goods tend to be necessities like education.	The main reason for government intervention for merit goods is due to the inefficiency in allocation of resources when left to the market.

	(iii)	Explain how increased government spending on infrastructure would affect the economic growth and employment of Singapore and comment on whether this would lead to conflicts between government macroeconomic objectives.	[9]

Explain the effect on economic growth and employment [5]
Increase in G by $5 billion → Increase in autonomous expenditure in the economy via discretionary fiscal policy →Increase in AD in the short-run [1]
Increase in AD → Increase real GDP via the multiplier process → Actual economic growth [1]
Infrastructure development in healthcare, education and urban development → Better quality of resources such as a more productive workforce and better infrastructure that facilitates transportation of goods [1]
Increase in potential output in the long-run → Potential growth [1]
Increase in output would increase the demand for labour since the demand for labour is a derived demand → Higher employment or lowers cyclical unemployment [1]

Comment on the conflicts between government objectives [4]
Conflict #1 - Growth vs Price Stability
Increase in AD would raise general price level → Demand-pull inflation
If the increase in AD is very large and it shifts along the vertical portion of the AS, it would cause very high inflation → Overheating in the short run
"The economy remains mired in an extended spell of deflation and steadily lower growth"
But the Singapore economy is likely to have excess capacity so the inflation is likely to be mild → No overheating
In the long run, AS increases (infrastructure development) → Reduce the upward pressure on general price level → This further ascertain that the economy would not have high inflation rate → No overheating

Recommended Conflict #2 - Growth vs favourable BOT.

Provided a one-sided comment on two possible conflicts – 1-3m
Provided a two-sided comment on two possible conflicts – 4m
Markers' comments

Some students did not link increase in Actual growth to AD and increase in potential growth to AS.

Many students only discuss 1 conflict rather than 2. For the conflict between inflation and economic growth, use the approach that there is a potential conflict there. However, given that Extract 6 mentioned that Singapore is mired in an extended period of deflation and low growth, this conflict is unlikely to happen.

Students' answers	AFIs
Spending on infrastructure hence advancement in technology leads to possible structural unemployment as not all the workers have the skills to do the new jobs that are created.	Note: Infrastructure is the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise.
As Yf increased due to increase in LRAS, unemployment increases and hence there is a conflict between economic growth and unemployment.	The AD/AS diagram is not meant to work this way. Labour force doesn't increase with increase in potential output. So, it is not accurate to argue the unemployment will increase as LRAS increase with AD.
Increased government spending on infrastructure increases productivity levels as people will take less time to reach their workplace	The student is thinking about roads for this example. Do state so as infrastructure such as buildings may not necessarily increase productivity. All infrastructure do increase productive capacity hence LRAS.

		Increased government spending on infrastructure results in better quality of education. This results in increase in employment. | Assumptions made about infrastructure increasing productivity which many not be true.	
(d)	Using case evidence and/or your own relevant knowledge, discuss whether MAS should adopt zero percent appreciation of the S$NEER in anticipation of an economic slowdown.		[12]

Introduction

If the Singapore economy anticipates an economic slowdown, coupled with deflation, or the threat of imported inflation from a weaker Singdollar is reduced, the MAS may adopt a neutral policy of zero per cent appreciation in the exchange rate (used in 2008). The means that MAS would reduce the slope (or flatten the slope) of its policy band that guides the local currency against an undisclosed trading basket, in effect slowing the pace of the Singdollar's appreciation against her trading partners.

Thesis – MAS should adopt zero percent appreciation of S$NEER in anticipation of economic slowdown

Table 2 shows declining growth rate from 3rd quarter 2015 to 3rd quarter 2016 with a negative growth rate recorded in the 3rd quarter 2016.

Changes in employment although positive, have fallen from 3rd quarter 2015 to 2nd quarter 2016. Within the same period, export revenue has fallen.

Above data suggest that Singapore's economy is slowing down.

"The Singapore dollar tumbled to $1.36 levels to the US dollar, a sharp depreciation (within the currency band) from Wednesday's $1.35 levels. Same trend was observed for Malaysian Ringgit."

Zero percent appreciation of S$NEER could allow Singdollar to weaken/depreciate against foreign currencies of her trading partners. This will improve export price competitiveness and increase (X-M) hence AD, achieving economic growth and increase employment.

Explain how depreciation of Singdollar increases export revenue and lowers import expenditure in terms of home currency (Singdollar), using PEDx and PEDm, hence increase AD.

Theoretically, there could be a risk of imported inflation but this risk is lessened as such policy stance is adopted when the threat of imported inflation has been reduced. Table 2 shows that general price level has been falling (or inflation rate is negative). Extract 6 also mentioned that the Singapore economy experienced "extended spell of deflation". Hence boosting AD will prevent further deflation.

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Anti-Thesis – MAS should not adopt zero percent appreciation of S$NEER as there is threat of inflation economy is not yet in recession

Inflation threat is still present. With reference to Figure 1, despite a general fall in oil price from 2012 to 2016, there is sign of increment in oil prices in the beginning of 2016.

Explain how gradual and modest appreciation of S$NEER can manage import price push inflation (increase SRAS) and demand pull inflation (lower AD).

The data for 4th quarter 2016 GDP growth is not yet released. The Singapore economy may have a positive growth rate in the 4th quarter and hence there may be no recession.

Moreover government can use expansionary fiscal policy to boost economic growth while maintaining gradual and modest appreciation

Conclusion

MAS would require more information such as the reason for the fall in GDP. If the MAS is certain that the world economy is going to experience negative growth, such as the 2008 global financial crisis, then adopting a zero appreciation is deemed appropriate to prevent Singapore's economy from a recession. If not, such policy should not be adopted as it may lead to higher inflation in Singapore.

As there is sufficient data to suggest that there is a likelihood of recession in Singapore, such as those shown in Table 2, MAS should adopt zero appreciation policy. The policy has mitigated the slowdown in Singapore's economy as the 2016 3rd quarter export growth rate has improved from the previous quarter. If the export growth rate continues to improve, the GDP growth rate in the 4th quarter of 2016 would also improve.

Level Marking
L3: 6-9 Provided a good analysis of the zero percent appreciation of S$NEER. There is a two-sided discussion.

L2: 3-5 Provided a one-sided discussion of the zero percent appreciation of S$NEER.
OR
Provided a two-sided discussion of the zero percent appreciation of S$NEER but there are major errors spotted,

L1: 1-2 There is an attempt to explain the zero percent appreciation of S$NEER.

EV: 2-3 Provided a good judgement on whether MAS should adopt the zero percent appreciation of S$NEER with reference to relevant information from case material.

EV: 1 Provided a general comment.

Markers' comments

Students' answers	AFIs
With appreciation of the currency, Singapore's exports will fall and imports will rise. This worsens the BOT and hence AD and Y. Hence, the zero appreciation policy is beneficial for Singapore as national income will not fall.	This is a very common mistake. Extract 6 "Soon after the release of news on the shift of **policy stance**, the Sing dollar tumbled to $1.36 levels to the US dollar, a sharp **depreciation** (within the currency band) from Wednesday's $1.35 levels. A similar trend was also observed for Sing dollar against the Malaysian Ringgit." This case information should have given you the courage to analyse the effects of a depreciation. Be more sensitive towards case information. Another example is that Extract 6: The economy remains mired in an extended spell of deflation and steadily lower growth) which can be used to justify that depreciation is NOT likely to put Singapore in a risk of imported inflation.
Other policies such as SS-side policy should be considered.	The question is on whether MAS should adopt zero percent appreciation or not in view of the economic slowdown. It is not about what is the best policy in view of the economic slowdown. Hence, discussion of other policies should NOT take up so much of the answer.