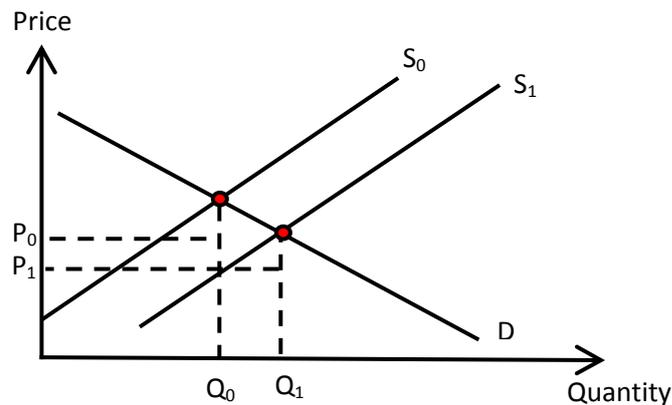


## 2015 Prelim (CSQ #1) H1 & H2

### Mark Scheme

a.		Compare the trends in population and vehicle population figures in India from 2002 to 2008.	2m
		<ul style="list-style-type: none"> <li>• Similarity: Both population and vehicle population figures are increasing (1)</li> <li>• Difference: <ul style="list-style-type: none"> <li>- Vehicle population is growing much faster than human population.</li> <li>OR</li> <li>- Population figures are increasing at a decreasing rate, but vehicle population are increasing at an increasing rate (1)</li> </ul> </li> </ul>	
b.		Explain why public transport is considered an ‘inferior good’ in India.	2m
		<ul style="list-style-type: none"> <li>• Incomes are rising, growing prosperity leads to falling demand for public transport → YED is negative (expected for H2, not for H1) (1)</li> <li>• <b>Either:</b> Longer travel time, <b>Or:</b> Poorer comfort levels (1)</li> </ul>	
c.		Suggest a possible reason for the difference in productivity between the Thai and Japanese automobile industry.	2m
		<p>Identify the difference:</p> <ul style="list-style-type: none"> <li>• The Thai automobile industry is less productive than the Japanese automobile industry</li> </ul> <p>Suggest a possible reason:</p> <ul style="list-style-type: none"> <li>• Either: The quality of labour is are likely to be higher as they are generally more well educated.</li> <li>• Or: Japan may possess more capital goods. Moreover, these capital goods may be of higher quality and technology level compared to what Thailand has.</li> </ul>	
d.	(i)	Explain what is meant by the term third party costs.	2m
		<p>Third party costs are:</p> <ul style="list-style-type: none"> <li>• Costs arising from an economic activity that <b>falls on parties not directly involved in the transaction</b> (1)</li> <li>• And are <b>not taken into account</b> by those who directly participate in the economic activity (1)</li> </ul>	
	(ii)	<p>“Instead of waiting for local governments to act, a handful of Indian businesses are taking the initiative to implement transport demand management (TDM) strategies.”</p> <p>Explain why private companies in India would take the initiative to implement TDM strategies.</p>	4m (H1 6m)
		<ul style="list-style-type: none"> <li>- Identify that the firms are part of the 3<sup>rd</sup> party costs. (1m) H1 (1m)</li> <li>- Explain how TDM reduces these costs. (1m) H1 (3m)</li> <li>- (use framework) (2m) H1 (2m)</li> </ul> <ul style="list-style-type: none"> <li>• The third party costs incurred due to congestion includes the time wasted sitting in traffic. This results in a loss of productivity.</li> <li>• Private companies are the third parties that bear the costs due to time wastage and productivity. The cost of production face by private producers is higher than what it could be if the congestion problem is alleviated.</li> <li>• TDM strategies will be able to improve the productivity of the private firms, thereby reducing their cost of production.</li> </ul>	

- From the private firm's perspective, the objective is to maximise profits. If the benefits of implementing TDM due to the lowered cost of production are greater than the costs, then the firms should take the initiative to provide the TDM.
- Examples of benefits and costs
  - Benefits: Workers more likely to get to work on time and less tired out by traffic → increase in number of hours worked, increased productivity
  - Costs: Rental of company buses and hiring bus drivers
- Increased productivity due to the TDM would shift the firms' supply curve rightwards from  $S_0$  to  $S_1$ , resulting in a fall in equilibrium price from  $P_0$  to  $P_1$  and equilibrium quantity from  $Q_0$  to  $Q_1$
- Assuming that the demand for the goods of these firms is price elastic, a fall in price due to the increase in supply would result in an increase in TR.
- Assuming that the increase in TC due to TDM is less than the increase in TR, firms will take the initiative to implement TDM.



e.

Assess whether the subsidy for public transport is the most effective policy in addressing the congestion problem in the Indian cities.

8m

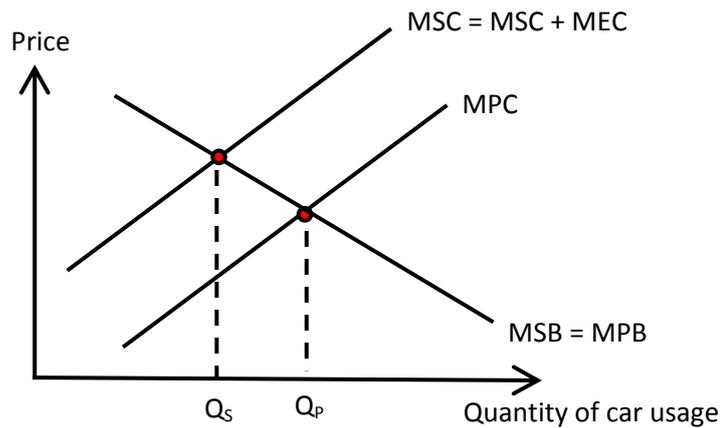
(Note: Students can interpret the subsidy for public transport as either a subsidy to producers of public transport, or a subsidy to consumers of public transport)

Introduction:

- A subsidy on public transport could encourage Indian consumers to use more public transport and reduce the usage of private vehicles. This could result in fewer vehicles on the roads, and therefore, alleviate the problem of congestion.
- However, this policy might not be very effective as it does not directly reduce the number of cars on the roads. Moreover, imposing a subsidy also have other limitations.

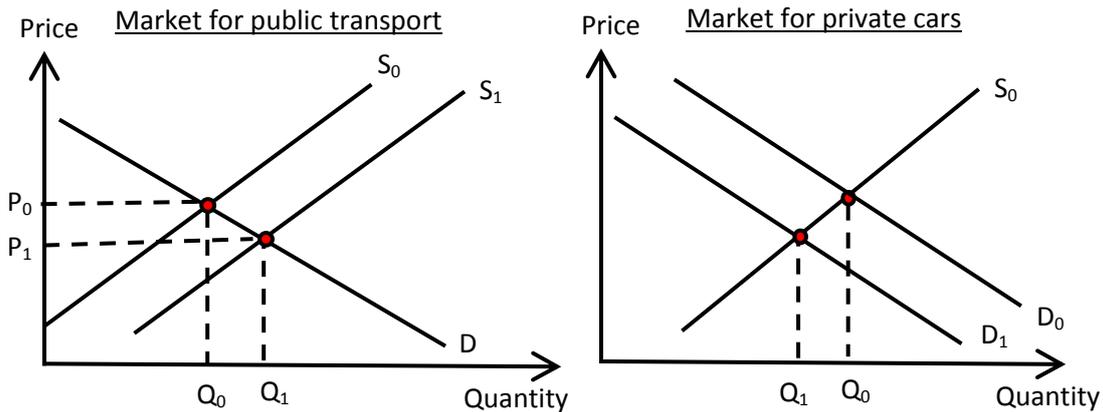
Body 1: Explaining the negative externality

- Congestion is a negative externality that arises due to the overconsumption of private vehicles. Consumers aim to maximise their net private benefit. Thus, in deciding the amount of car usage to consume, they will equate MPC and MPB, and consume at point  $Q_p$ . At  $Q_p$ , the net private benefits are maximised.
- However, the negative externality that results from car usage causes a divergence between MSC and MPC. At  $Q_p$ , the MSC is higher than MPC, resulting in a deadweight loss.
- From society's point of view, the social optimum consumption level is at  $Q_s$ , where  $MSC = MSB$ . This point maximises society's net benefit.

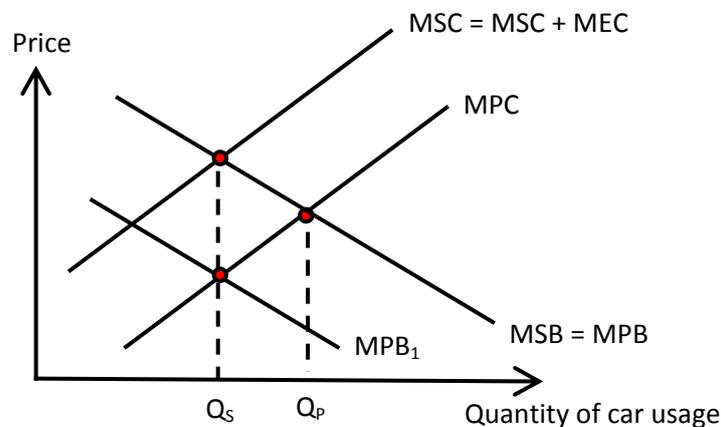


Body 2 (Thesis): Subsidising provision of public transport can address congestion

- Giving a subsidy to the producers of public transport would allow them to reduce their cost of production. Thus, the supply for public transport will increase from  $S_0$  to  $S_1$ . Thus, the eqm price for public transport will fall from  $P_0$  to  $P_1$ , and equilibrium quantity will increase from  $Q_0$  to  $Q_1$ . This implies that, after the subsidy, public transport is cheaper and easily available.
- Since public transport and cars are substitute goods, a decrease in price of public transport due to the subsidy will result in the decrease in demand for cars from  $D_0$  to  $D_1$ .



- As public transport is cheaper and easily available, the relative MPB for car usage will be lowered from MPB to  $MPB_1$ .



- As public transport is cheaper and easily available, the relative MPB for car usage will be lowered from MPB to  $MPB_1$ . Consumers will now consume that  $MPB_1 = MPC$ , which results in the output level to be at  $Q_s$ . This coincides with the social optimum level of car usage.

Body 3 (Anti-thesis 1): Limitations of subsidising provision of public transport

- It attempts to address the problem of over-consumption of cars through improvement of public transport. In a way, the policy is not directly addressing the root cause of the problem.
- The effectiveness of the subsidy depends on how strong a substitute consumers regard public transport is compared to cars.

Body 4 (Anti-thesis 2): Alternative measures

- Tax on the ownership and usage of cars
- Quantity restriction on the number of cars that can be used on the roads

Conclusion: Stand and justification

- A subsidy on public transport may not be the most effective solution to address the market failure due to car usage.
- Firstly, it does not directly address the problem. An alternative policy that directly addresses the problem, like a tax on car usage, should be more effective.
- Moreover, in India, consumers do not consider public transport to be a good substitute to cars as the quality and reliability of the public transport is very low.

L1	One-sided answer that shows basic knowledge of either subsidies or an alternative policy	1-3m
L2	Well- explained but one-sided argument (e.g. only explained why subsidy is / is not the best policy, without any consideration of alternatives.)  Two-sided argument that explained how a subsidy on public transport and an alternative policy might work to solve the congestion, with reference to extracts and context of India.	Max 4m  4-6m
E	Shows evaluation through a comparison of the policies, and arrive at a justified conclusion.	1-2m

f.	<p>“In the first seven months of 2014 the Thai automobile industry produced 1.1 million vehicles, a 28.5 per cent drop on the same period last year.”</p> <p>To what extent is the rise of the Indian automobile industry the main reason for the above development in the Thai automobile industry?</p>	<p>10m</p> <p>(H1 8m)</p>
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Introduction:

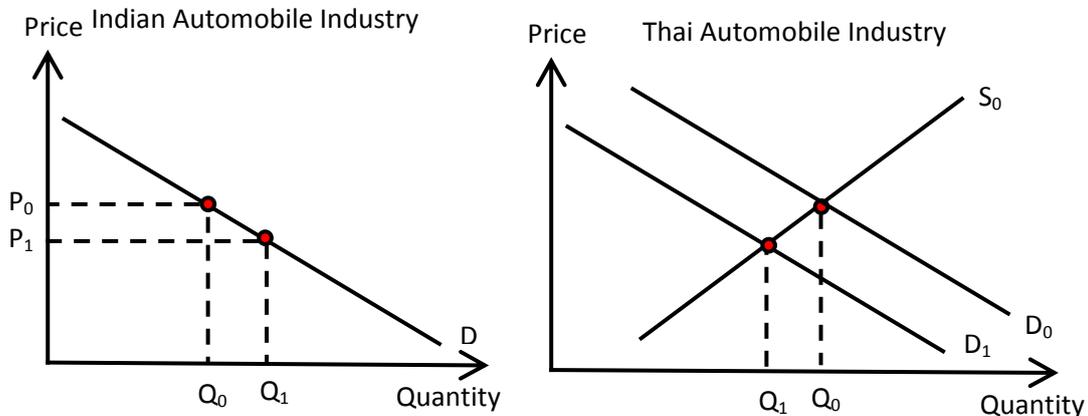
- Automobiles produced in India and Thailand are close substitutes of each other. Therefore, it is possible that the rise of the Indian automobile industry could lead to the worsening of the Thai automobile industry.
- However, there are also internal reasons for the decline in the Thai automobile industry.

Thesis: Rise in Indian Auto industry caused the 28.5% drop in Thai auto industry.

- Rise of the Indian automobile industry provided a decent alternative to the Thai vehicles in the global automobile market. This resulted in some consumers

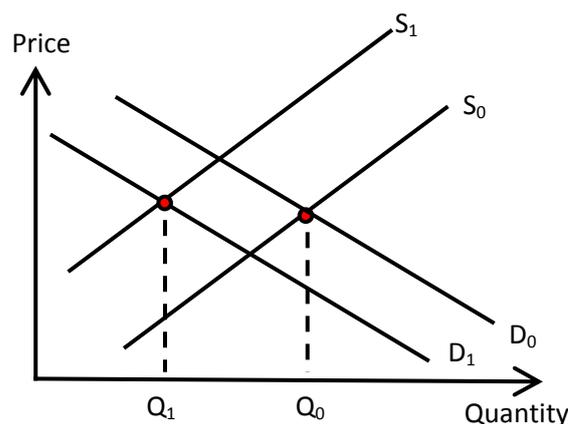
switching to Indian automobile firms due to the lower prices offered by India, ie “several automotive manufacturers serving the Asean market are increasingly sourcing their engines from India”

- The rise in Indian automobile industry could have led to the a reduce in demand for Thai automobiles. Demand for Thai automobiles fall from  $D_0$  to  $D_1$ . Consequently, there is a decrease in equilibrium quantity of Thai cars from  $Q_0$  to  $Q_1$



Anti-thesis: Rise in Indian Auto industry did not cause the 28.5% drop.

- The Thai automobile industry could have declined due to domestic problems like political upheavals and lack of skilled workers.
- Political upheavals could have resulted in a fall in consumer confidence. Thus, consumers will reduce their consumption of big ticket items like cars. Demand for Thai automobiles decreases from  $D_0$  to  $D_1$ .
- Political upheavals also caused road blockages and decrease in productivity. These could cause an increase in cost of production. Thus, supply of Thai automobiles will decrease.
- Lack of skilled workers also causes a decrease in productivity. Taken together, supply decreases from  $S_0$  to  $S_1$ .
- As a result, equilibrium quantity for Thai automobiles dropped significantly from  $Q_0$  to  $Q_1$ .



Conclusion:

- It is likely that domestic concerns are the main reasons for the 28% drop in the Thai automobile industry.
- The rise of India only exerted a minimal effect as India and Thailand are only directly competing in the ASEAN market, which is not big in global terms.
- Moreover, the domestic concerns in Thailand are very severe and longstanding. For eg, the political upheavals were frequent in the last decade, and could last several months at a time.

		H2	H1
L1	Shows superficial knowledge of how the rise of Indian automobile industry may have affected the Thai automobile industry.	1-3m	1-3m
L2	Well- explained but one-sided argument, explaining how the rise of Indian automobile industry is / is not the main factor that led to the  =OR=  Underdeveloped two-sided argument that explained how the rise of Indian automobile industry <b>and</b> the domestic factors (ie. political upheavals, lack of skilled labour) in Thailand might be the main factor that led to the fall in the Thai automobile industry.	4-6m	
L3	A two-sided argument, with a complete explanation and accurate application of the economic framework, on how the rise of Indian automobile industry <b>and</b> the domestic factors in Thailand might be the main reason that led to the fall in the Thai automobile industry.	7-8m	
E	Able to arrive at a justified conclusion on which factor is the main reason affecting the Thai automobile industry.	1-2m	1-2m

**2015 Prelim (CSQ #2) H1 & H2**

<b>a</b>	<b>i.</b>	<b>Describe the trend in the government budget balance in the US between 2011 and 2014.</b>	<b>[2]</b>
		There was a deficit in the US government budget from 2012 to 2014	<b>1m</b>
		The deficit showed a falling trend.	<b>1m</b>
	<b>ii</b>	<b>Explain how the trend in the US's government budget balance is expected to affect the US inflation rate.</b>	<b>[2]</b>
		Since the government budget is made up of government expenditure and tax revenue, a falling deficit would imply a contractionary measure	<b>1m</b>
		Hence with falling budget deficit, AD is expected to fall and hence inflation rates are expected to fall.	<b>1m</b>
<b>b</b>		<b>With the use of a diagram, explain how "Fed's tapering" may cause an appreciation of the US dollar. [4]</b>	<b>[4]</b>
		Fed's tapering refers to reduction in the monthly bond purchase program, may result in a reduction of liquidity in the market and perhaps a hike in interest rate.	<b>1m</b>
		With higher interest rates, there is likelihood of USD to appreciate in the medium term due to increase in "hot money" inflows or decrease in "hot money" outflows	<b>1m</b>
		Increase in demand for US dollar or decrease in supply of US dollar	<b>1m</b>
		Diagram	<b>1m</b>
<b>c</b>		<b>Extract 5 explains that the 2013 growth slide has given way to what economists call a "virtuous cycle".</b>	<b>[4]</b>
		<b>Using the concept of the circular flow of income, explain how such a change, will affect the equilibrium level of national income in 2014.</b>	
		A "virtuous cycle," comes about when "improvement in one part of the economy feeds into the others".	
		The circular flow of income explains the flow of income between firms, households, the government and the foreign sector.	<b>1m</b>
		For example, an increase in government expenditure on infrastructure, will lead to firms undertaking the production of the infrastructure. In order to produce the goods, firms require the resources such as land and labour from the households. The provides these resources in return for factor payments such as rents and wages.	<b>5m</b>

	<p>The rising factor incomes, induces households to consume goods from various industries such as food and beverages, airline etc., save as well as purchase imports and pay income tax.</p> <p>The rising expenditure in these industries leads to firms in these industries to produce more goods. Once again the firms will require more resources from households and this leads to more factor income to households. With rising factor incomes, households consume more goods and from a wider range of industries. The process continues hence “one part of the economy feeds into the others”.</p>	
d	<p><b>With reference to the data, discuss whether economic growth in US is expected to improve from 2014 and beyond.</b></p>	[8]
	<p><b>Thesis:</b> EG is expected to increase in US</p> <ol style="list-style-type: none"> <li>i. <u>Explain how AD will increase in the US</u> <ul style="list-style-type: none"> <li>• Ext 5 para 2: American shoppers are flush with cheap credit → Loans with low interest rate → COB is lower → C will increase</li> <li>• Extract 5 para 2: Public spending as a proportion of GDP rose in 2014 → Increase in G on G &amp; S</li> <li>• Increase in G &amp; C → AD will increase → RNY increase → Actual growth</li> </ul> </li> <li>ii. <u>Explain how SRAS will increase in the US</u> <ul style="list-style-type: none"> <li>• Ext 5 para 2: lower imported oil prices → COP fall → SARS will increase → RNY increase → Actual growth</li> </ul> </li> </ol>	
	<p><b>Anti-thesis:</b> EG may fall or increase at a slower rate.</p> <ol style="list-style-type: none"> <li>i. <u>Explain how Increase in interest rates will have contractionary effects on the US economy.</u> <ul style="list-style-type: none"> <li>• Ext 5 para 3: Pace of the US growth depends on when the Federal Reserve will decide to begin raising interest rates</li> <li>• Increase in <math>i/r</math> → COB increase, Reward for Savings increase → I &amp; C falls → AD falls → RNY falls → Fall in Actual Growth</li> <li>• Increase in <math>i/r</math> → Appreciation of the US dollar → Hurt US export competitiveness → X falls → AD falls → RNY falls → Fall in Actual Growth</li> </ul> </li> <li>ii. <u>Explain how external events can affect US economic growth</u> <ul style="list-style-type: none"> <li>• Ext 5 para 4 :China's once red hot growth pace has slowed, -running efforts to revive growth in Europe and Japan continue to come up short</li> </ul> </li> </ol>	

	<ul style="list-style-type: none"> <li>China's economic slowdown and slow economic recovery in the EU &amp; Japan will mean that US's trade &amp; investment in these countries will be negatively affected.</li> <li>E.g. Slowdown in income growth of the Chinese households → DD less of foreign goods from the US → US's X will fall → AD will fall → RNY falls → Fall in Actual Growth</li> <li>E.g. US firms which are doing business in China could also be hit → Earn less sales &amp; profits → Fall in factor income from abroad → Fall in GNP</li> </ul>													
	<p><b>Judgment</b></p> <p>Take a stand whether US's economy is expected to improve. Provide justification for the stand. Use data to support the stand.</p>													
	<p>Level Descriptors</p> <table border="1"> <tr> <td>L1</td> <td>Mere listing of points with lack of evidence</td> <td>1-3m</td> </tr> <tr> <td>L2</td> <td>Well- explained but one-sided argument (e.g. US economic growth will increase) or balanced argument but under developed explanation - Max 4m</td> <td>4-6m</td> </tr> <tr> <td></td> <td>Well developed and balanced explanation(US economic growth may either increase or slow down ) with reference to extracts and context of the US economy,</td> <td></td> </tr> <tr> <td>E1</td> <td>Able to make reasoned conclusion</td> <td>1-2 m</td> </tr> </table>	L1	Mere listing of points with lack of evidence	1-3m	L2	Well- explained but one-sided argument (e.g. US economic growth will increase) or balanced argument but under developed explanation - Max 4m	4-6m		Well developed and balanced explanation(US economic growth may either increase or slow down ) with reference to extracts and context of the US economy,		E1	Able to make reasoned conclusion	1-2 m	
L1	Mere listing of points with lack of evidence	1-3m												
L2	Well- explained but one-sided argument (e.g. US economic growth will increase) or balanced argument but under developed explanation - Max 4m	4-6m												
	Well developed and balanced explanation(US economic growth may either increase or slow down ) with reference to extracts and context of the US economy,													
E1	Able to make reasoned conclusion	1-2 m												
e	<p><b>Assess the likely impact of an increase in interest rates in the US and divergent US-China growth on the balance of payments of Singapore and Hong Kong.</b></p>	[8]												
	<p>i. <u>Explain how <b>increase in interest rates</b> in US will affect Singapore and Hong Kong in terms of BOP ( current &amp; capital account)</u></p> <p><b>Singapore</b></p> <ul style="list-style-type: none"> <li>Ext 6 para 2: "Asian exporters which include Singapore will be the winners"</li> <li>Increase in interest rates → Appreciation of US dollar → Singapore exports are relatively cheaper, Imports from US are relatively more expensive → (X-M) should increase → <b>Improve current account</b></li> <li>Singapore follow world interest rates, including US's interest rates → Increase in interest rates → Hot Money inflow → <b>Improve capital account</b></li> </ul>													

- **Hong Kong**
  - Ext 6 para 2: “Hong Kong dollar is pegged to the US dollar” → Appreciation of the HKD → Hong Kong exports are relatively more expensive, Imports are relatively cheaper → (X-M) should fall → **Worsen current account**
  - Extract 6 para 2: Banks in Hong Kong will have to “increase interest rates” → Hot Money inflow → **Improve capital account**

ii. Explain how the **divergent US-China growth** will affect Hong Kong and Singapore in terms of BOP (current & capital account)

**Singapore**

- Table 1 shows that divergent US-China growth will lead to overall 1.1% increase in Singapore’s economic growth rate → Such data suggests that impacts of stronger growth in US (↑ in Y & PP in the US → ↑ in DD for Sg’s X) will outweighs slowdown of China’s economy (↓ in Y & PP in the US → ↓ in DD for Sg’s X) → Singapore will continue to enjoy overall strong export growth, thus leading to 1.1% increase in economic growth → **Singapore’s current account is expected to improve**

**Hong Kong**

- Table 1 shows that divergent US-China growth will lead to overall 0.2% increase in Hong Kong’s economic growth rate → Such data suggests that Hong Kong may still experience growth in exports, thus leading to increase in 0.2% economic growth → **Hong Kong’s current account is expected to improve**

iii. Compare the extent of impact of 2 events on Singapore and Hong Kong ‘s BOP(current & capital account)

- Hong Kong is likely to experience a more negative impact than Singapore in terms of BOP(current account)
- This is due to China being Hong Kong’s biggest trading partner in terms of export destination (Table 2: Hong Kong export 47% to China out of its total trade), compared with Singapore, who only export 12 % of its total trade to China.

Level Descriptors

L1	Superficial answers that explain some effects on Singapore and Hong kong in terms of BOP	1-3m
L2	Answers that explain clearly both the events and the impact on Singapore and Hong kong and in terms of both current account and capital account.	4-6m

		Answers that explain clearly both the events and the impact on Singapore and Hong kong but in terms of only either current account or capital account.	Max 4	
	E	Judgment based on analysis; good effort at substantiation, e.g which country benefits/loses more	1-2 m	