

### **EQ6**

The Singapore economy is likely to see modest growth over the coming quarters, with GDP projected to expand by 1% to 3% for 2016. This is coupled with growing income inequality. With US adopting protectionism and its growth slipping further, global trade activities will continue to dampen.

**Discuss the relative effectiveness of an exchange rate policy and supply-side policies in addressing the above challenges.** [25]

### **Intro:**

From the preamble above, Singapore is set to face a series of challenges such as slow growth, worsening of its balance of payments as well as non-inclusive growth. This is due to the dampening of global trade activities caused by the US' adoption of protectionism and fall in its growth. Therefore, the Singapore government will have to implement a string of policies such as exchange rate and supply-side policies to tackle the problem.

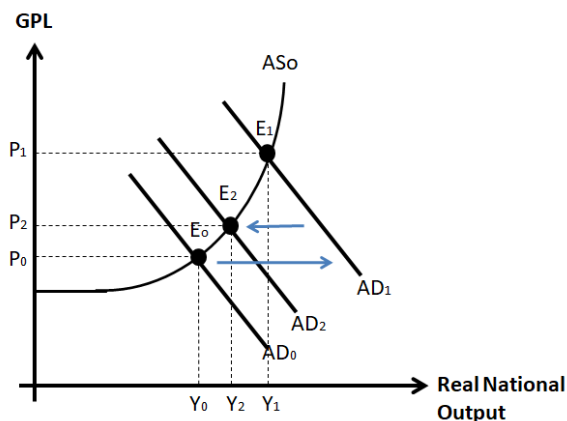
### **Body:**

**P1: Establishing the context and hence key issues facing Singapore i.e. The adoption of protectionism by US and its falling growth will pose some challenges to Singapore's economy.**

The fall in growth rates in the US will result in a fall in demand for goods and services exported by its trading partners such as Singapore. With growth slipping further, consumers in the US will be less likely to purchase as many goods and services from Singapore due to a fall in consumers' confidence. This fall in demand for Singapore's exports will result in a fall in both its price and quantity causing total revenue from exports to fall.

In order to protect its domestic industries and prevent its growth from slipping further, the US government has adopted protectionist measures such as that of a tariff on foreign goods. Such a measure will lead to a rise in price in Singapore's exports into the US causing a more than proportionate fall in quantity demanded assuming the price elasticity of demand for Singapore's exports is price elastic due to the availability of substitutes in the US. This will again lead to a fall in Singapore's export revenue.

This fall in export revenue will cause aggregate demand (AD) to fall. This fall in AD (from AD<sub>1</sub> to AD<sub>2</sub>) will counteract the rise in AD (from AD<sub>0</sub> to AD<sub>1</sub>) caused by the other components such as domestic consumption, government expenditure and investment expenditure. This results in slow growth from Y<sub>0</sub> to Y<sub>2</sub> instead of Y<sub>0</sub> to Y<sub>1</sub>.



The initial fall in injection (X) will lead to a corresponding initial decrease in national income. Consequently, this fall in incomes will lead to a fall in induced consumption and a fall in withdrawals (in the form of savings, taxes and import expenditure). The amount of fall in induced consumption is determined by the value of marginal propensity to consume. The higher the value of MPC, the greater is the fall in induced consumption and hence the larger is the fall in national income. The multiplier process continues until the initial fall in injections is equal to the total fall in withdrawals.

Hence, the economy reaches a new equilibrium national income at a lower level than Y1 which resulted in a slowdown in economic growth, assuming the economy is not nearing full employment. With only a smaller rise in incomes, the Singapore government is not able to collect significantly higher amount of taxes that could have given it the greater ability and leeway to embark on infrastructural and social spending that could have benefited the citizens in a more pronounced manner.

This fall in export revenue could also result in a fall in inflow of export receipts into Singapore. This will worsen the current account which in turn worsens the balance of payments of Singapore. If Singapore's balance of payments were to experience a deficit, it may have to be financed by foreign borrowing (both private and government). The country's foreign long-term debt will increase. The money borrowed has to be repaid sometime in the future with interest, which lowers the standard of living of future generations.

## **P2: The growing income inequality will pose some challenges to Singapore.**

Economic growth should also be inclusive so that the rate of growth is not only sustained over a period of time, but also broad-based across economic sectors and creates productive employment opportunities for the majority of the country's population. It involves an equitable distribution of income, to ensure that the benefits from economic growth are enjoyed by the majority, instead of being reaped only by a few. The growing income inequality might be caused by the fall in wages for low skilled labour.

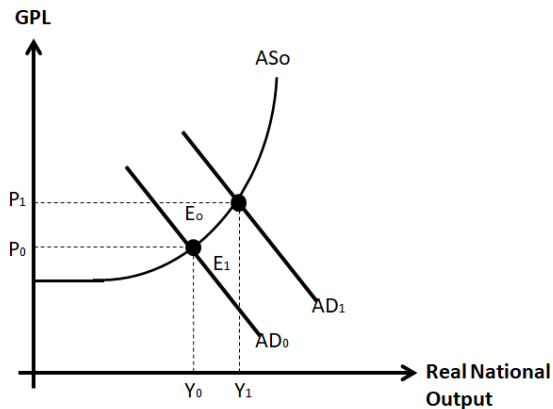
As Singapore transit to a more knowledge-based economy, the demand for high skilled labour will increase while demand for low skilled labour falls due to outsourcing of low skilled production to other countries such as Vietnam and Cambodia. The change demand will result in a fall in wages for low skilled labour and a rise in demand for high skilled labour causing a more inequitable distribution of income.

From the social point of view, this is undesirable as it causes factions of citizens to be marginalised and left unable to cope with meeting their basic needs as they are unable to purchase essential goods and gain access to merit goods such as healthcare and education.

## **P3: Exchange rate policy of Zero Appreciation**

In order to address the mentioned challenges, the Singapore government may choose to change its exchange rate policy from gradual modest appreciation to a zero appreciation one like it did during the 2008 subprime crisis. This is done through skilful manipulation of currencies while maintaining zero NEER – depreciate against currencies of countries that it sells exports to and to appreciate against currencies of countries that it buys imports from. By flattening the band to allow more room for the Singapore dollar to depreciate, the price of Singapore's exports will fall in foreign currency resulting in a rise in quantity demanded for Singapore's exports. At the same time, the price of imports in Singapore dollars will increase resulting in a fall in quantity demanded.

The demand for Singapore's exports is price elastic, to the availability of many close substitutes from other countries. Being a small country that lacks natural resources, Singapore is heavily reliant on imports resulting in the PED of its imports to be price inelastic. However, assuming that the sum of PED for exports and imports is more than one, depreciation in the Singapore dollars will lead to a rise in net export revenue due to the Marshall Learner Condition.



This rise in net export revenue will result in a rise in AD causing it to shift from  $AD_0$  to  $AD_1$ . This rise in AD will then result in multiple increase in national income via the multiplier process causing national income to rise from  $Y_0$  to  $Y_1$  assuming that the Singapore economy is not operating at the full level of employment. Thus there will be a rise in economic growth rates. Furthermore, the rise in inflow of receipts due to the rise in net export revenue could also improve the BOP position of the economy.

With this rise in economic growth rates, the government could collect a higher amount of taxes that can be used to better redistribute income from the rich to the poor. As income increases, workers will progress to a higher income bracket, requiring them to pay a higher percentage of their income as taxes. The progressive tax system thus has redistributive effects since workers in higher income brackets will pay more taxes. This redistributive effect is compounded too when the rich buy more expensive luxury goods and thus pay more taxes even at the same goods and services tax rate. With a higher government budget due to greater amount of taxes received, the government's redistributive effect will be more significantly felt through targeted expenditure on the lower income group. Such include welfare payments and also on merit goods such as education and healthcare subsidies. This could help the government address the problem of income inequality.

### Limitations:

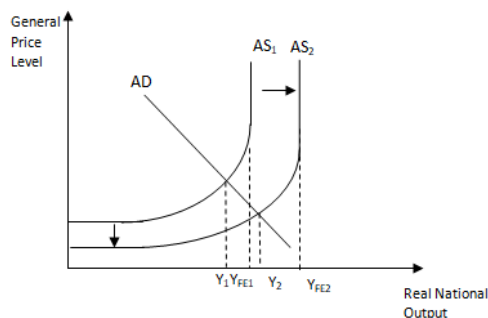
1. The rise in export revenue which is a form of injection will lead to multiple increase in national income. The extent in rise in national income is determined by the size of the multiplier. The **size of Singapore's multiplier is small**, which is due to high MPW arising from high MPS and MPM.
  - **High MPS** arises from compulsory savings through Central Provident Fund contributions where 20% of gross income is saved. In addition, households save another proportion for precautionary and other purposes. Overall, Singapore's savings as a % of GDP is 50%.
  - **High MPM** is due to Singapore's limited resources. We import virtually all final goods & services and raw materials. For every \$1 spent, 60 cents go into imports.
2. Hence exchange rate policy is not very effective to stimulate growth because with a small multiplier value, the **final rise in national income is limited**.
3. This policy however might result in imported inflation. Domestic firms that rely on imported raw materials such as crude oil and sand will face a rise in their production costs forcing them to pass on the rise in costs to consumers in the form of higher prices resulting in import price push inflation. This could mitigate or even offset the fall in prices of exports due to the depreciation of the Singapore dollar as most of Singapore's exports have got high imported content thus resulting in this policy being ineffective.

- Furthermore this policy does not solve the root cause of the unequal distribution of income as the low skilled workers lacked the required skills and knowledge in order to achieve higher wages.

**EV:** Being a small country without any natural resources, Singapore is highly dependent on imported final goods and services as well as raw materials. Therefore the problem of imported inflation is severe. However this issue can be mitigated as the government could choose to only depreciate the Singapore dollars against the currencies that the nation sells its exports to. Furthermore, being a country highly dependent on external markets due to its small domestic market, it is important for Singapore to boost its export revenue in order to achieve high growth rates.

#### **P4: Supply-side policies to improve efficiency in markets**

These policies involve removing barriers to entry to make it easier or less costly for new firms to operate in the market against an existing firm or group of firms. Deregulation (e.g. removal of monopoly rights) forces firms with monopoly power to be subjected to greater competition, and incentivises them to become more efficient in production, lowering COP and increasing SRAS. In addition, encouraging competition can drive innovation as firms seek to gain a competitive edge over their rivals, and this can bring about technological advancements that shifts the LRAS to the right.



Such policy results in an increase in both SRAS and LRAS concurrently. National income  $Y_1$  increased to  $Y_2$ , resulting in actual growth. With better technology, the FOPs in the economy can now also produce more output. Productive capacity increases, illustrated by an increase in LRAS,  $Y_{FE1}$  increases to  $Y_{FE2}$  as shown in the Figure Potential growth is achieved. Potential growth is crucial for mature economies such as Singapore as the economy might be nearing its full capacity at  $Y_{FE}$ . Any increase in AD will lead to a smaller rise in real national income along the upwards-sloping section of the AS. If LRAS does not increase, any further increase in AD will not only result in slower rate of growth, but will lead to zero growth when AD reaches the vertical section of the AS curve. This policy could therefore help boost current and future economic growth rates.

The fall in costs could also help boost Singapore's export competitiveness as firms are able to pass on the fall in costs to consumers abroad in the form of lower prices. This could lead to an increase in export revenue thus improving the current account in the BOP.

#### **Limitation:**

- The improvement in technology could further worsen the problem of income inequality as low skilled workers are still unable to transit to the knowledge-based industries. Furthermore the change in demand for the different types of workers could further expand the wage difference of the two.

**P5: Supply-side policies to improve quantity, quality and mobility of factors of production.**

This could be achieved by improving human capital through education and training which will raise workers' productivity as well as increase their job flexibility and mobility. Government can provide educational facilities to increase accessibility to education. This ensures that sufficient training is provided and there is sufficient supply of skilled labour (e.g. scientists and engineers) to promote research and development. For example, with the SkillsFuture initiative, the Singapore government helps workers to learn new skills which raise the average quality of the labour force. The improvement in productivity will encourage firms to hire more workers as COP is reduced.

Better trained workers can also help to develop and produce higher quality products, increasing export demand and revenue. This could help boost export receipts and thus an improvement of the current account in the BOP.

Such initiatives also help to create productive employment opportunities and improve the income of lower income families. With the relevant skills acquired through training, these low skilled workers will be able to transit over to the knowledge-based industries and therefore command higher wages. The issue of income inequality can therefore be addressed.

**Limitations:**

1. **Difficult to change attitudes and mindsets:** There could be difficulty in changing people's attitudes and mindsets, particularly towards retraining or switching jobs. Workers may be unwilling to switch occupations mid-career or may be unwilling to attend training or retraining programme. This can make policies targeting improvement in productivity, such as SkillsFuture, less effective.
2. **Time lag:** Time is required for training to be completed. Furthermore in this ever changing world, the skills acquired may be deemed useless and outdated due to another round of structural changes. Therefore limiting the effectiveness of this policy.

**EV:** Skills upgrading and retraining is crucial for a small and open economy like Singapore. Being a country that lacks natural resources, Singapore will need to depend on its people to stay competitive in this globalised world.

**Evaluation**

**Stand:** To boost economic growth in the above-mentioned situation, the Singapore government has to adopt a mixture of both demand-management and supply-side policies. While the exchange rate policy has a significant amount of effectiveness since Singapore's economy is highly trade dependent, supply-side policies is probably the main policy to achieve inclusive growth.

**Personal opinion:** However, the policies will largely only help to buffer the impact and extent of the slow growth as it does not solve the root cause of the problem which is the US protectionist measures and the slipping in growth. However, the most important policy to implement is supply-side policies as it will re-position Singapore to be more ready to meet the new demands as the US economy eventually recovers and its protectionist measures lifted.

### Marking Scheme

Level	Knowledge, Understanding, Application and Analysis	Marks
L3	<ul style="list-style-type: none"> <li>Detailed analysis of the challenges faced by the Singapore government and its impacts on the Singapore economy.</li> <li>Detailed analysis of at least 3 measures (Exchange rate and at least 2 types of supply-side policies) as well as thorough assessment of these measures adopted by the Singapore government to address the challenges.</li> <li>Detailed analysis of at least 2 measures (Exchange rate and 1 type of supply-side policies) as well as thorough assessment of these measures adopted by the Singapore government to address the challenges with some mention of the 2<sup>nd</sup> supply-side policy. <b>[Max 16m]</b></li> <li>Detailed analysis of at least 2 measures (Exchange rate and 1 type of supply-side policies) as well as thorough assessment of these measures adopted by the Singapore government to address the challenges. <b>[Max 15m]</b></li> </ul>	15-20
L2	<ul style="list-style-type: none"> <li><b>Clear</b> explanation and analysis of the challenges faced by the Singapore government and its impacts on the Singapore economy are evident. But analysis is inconsistent eg. missing examples and links.</li> <li>For an answer that provided some analysis of at least 2 measures as well as an assessment of these measures adopted by the Singapore government to address the challenges but answer is lacking in analysis or scope.</li> <li>Detailed analysis of at least 3 measures (Exchange rate and at least 2 types of supply-side policies) as well as thorough assessment of these measures adopted by the Singapore government to address the challenges. However did not address all the 2 challenges (ie only address slow EG). <b>[Max 12m]</b></li> </ul>	9-14
L1	<ul style="list-style-type: none"> <li>Mere mention and analysis of the challenges with little or no mention of the measures to tackle the problem.</li> <li>For an answer with no mention or analysis of the challenges (ie essay on how the policy works) <b>[Max 8m]</b></li> <li>For an answer with an irrelevant policy, such as gradual and modest appreciation which reduces real NY instead.</li> </ul>	1-8
Level	Allow up to 5 additional marks for Evaluation	Marks
E3	<ul style="list-style-type: none"> <li>For an answer that uses appropriate analysis to support an evaluative conclusion about the relative effectiveness of the two measures adopted by the Singapore government to address the challenges mentioned in the preamble. The criteria used are supported with rigorous economic analysis.</li> </ul>	4-5
E2	<ul style="list-style-type: none"> <li>For an answer that makes some attempt at evaluation or a summative conclusion about the relative effectiveness of the two measures adopted by the Singapore government to address the challenges mentioned in the preamble. The answer should have certain criteria in assessing the measures, but lacking in detailed analysis.</li> </ul>	2-3
E1	<ul style="list-style-type: none"> <li>For an answer that gives an unsupported evaluative statement about the relative effectiveness of the two measures adopted by</li> </ul>	1

	the Singapore government to address the challenges mentioned in the preamble.	
--	---	--