

2018 JC2 H2 Prelim Essay Q4

Discuss the extent to which trade-offs in macroeconomic objectives will arise when the Singapore government allows its currency to appreciate. [25]

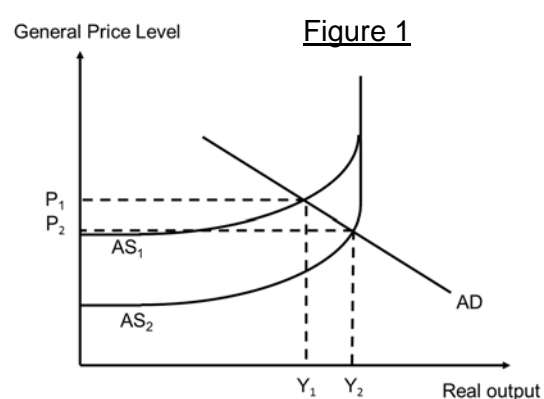
Suggested Answer:

Introduction:

The use of exchange rates is a significant tool to help Singapore achieve her economic goals. Through exchange rate policy, the Singapore government is able to control its inflation, which in turn will make her exports competitive and attract FDIs.

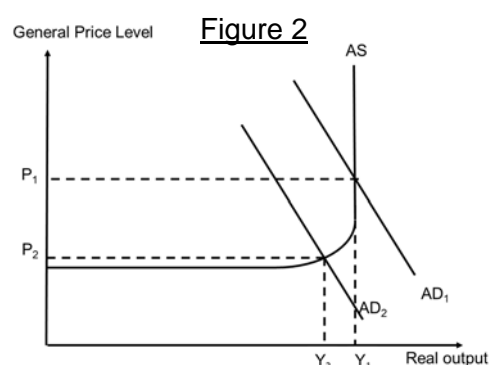
Development 1: Explain the intended outcome of an appreciation of the SGD i.e. explain how appreciation works to lower inflation rate in SG

In SG, a modest and gradual appreciation is used by the Monetary Authority of Singapore (MAS) to mitigate against imported inflation. This is important as Singapore has a high marginal propensity to import and a modest appreciation would thus place emphasis on the addressing of imported inflation first. To deal with rising prices from the global commodity markets, a stronger SGD will reduce the cost of imported raw materials that is expressed in



terms of local currency, thus possibly offsetting the rise in price of these raw materials in foreign currency. This lowers the unit cost of production significantly and increases supply of goods and services. If many individual market supply curves increase, then SRAS increases from AS_1 to AS_2 as shown in Figure 1, causing GPL to fall, thus tackling the problem of imported cost-push inflation. In addition, the appreciation also causes imported final goods and services to be cheaper in terms of SGD, and also increases competitive pressure for domestic firms to keep prices low. These overall aim to lower domestic inflation rates in SG.

The appreciation of the SGD can also help to curb demand-pull inflation. With an appreciation of the SGD, price of exports in foreign currency rises and price of imports in domestic currency (SGD) falls. Assuming $PED_x > 0$ in SG's case, there will be a fall in demand for exports, and hence export revenue measured in SGD. At the same time, since $PED_m < 1$ for SG, the fall in prices lead to a less than proportionate increase in quantity demanded for imports, causing a fall in import expenditure. If the Marshall-Lerner condition holds, where $(PED_x + PED_m) > 1$, this will decrease net



export revenue ($X-M$) and aggregate demand (AD), ceteris paribus. Marshall-Lerner condition holds for Singapore because the demand for Singapore's export is price elastic (i.e. $PED_x > 1$) due to the wide availability of substitutes for Singapore's exports. While this further helps to manage inflation through a lowering of the AD and hence GPL (lowering demand-pull inflation), it also in turn leads to lower real output.

However, the appreciation of the SGD will mean that export competitiveness is compromised. This is because Singapore's exports, being expressed in SGD, will now require more foreign currency to be exchanged for them given the stronger SGD.

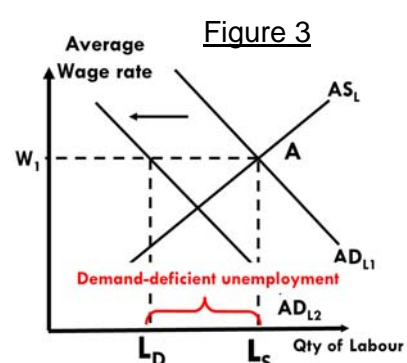
Development 2: Explain the trade-offs (at least 2) that occur as a result of appreciating the SGD

Show that while an appreciation of the SGD can lower cost-push and demand-pull inflation, it may worsen BOP, cause negative growth and increase demand-deficient unemployment in SG

While the main intent of the appreciation of SGD is to address imported inflation, it can also address demand-pull inflation, as explained above. While the appreciation may successfully reduce inflation rates in Singapore, there are potential trade-offs with the government's macroeconomic objectives.

Firstly, the appreciation of SGD may worsen Singapore's balance of trade and hence balance of payments. With higher prices of exports measured in foreign currency and lower import prices measured in domestic currency, assuming the M-L condition holds, as explained earlier, $(X-M)$ falls. Assuming the trade balance were in equilibrium, where $(X-M) = 0$, a fall in $(X-M)$ would lead to a deficit in the trade balance and hence BOP, ceteris paribus. This causes a **trade-off with the goal of a healthy BOP, should the deficit in the BOP be large and persistent.**

Secondly, while the fall in $(X-M)$ and hence AD leads to a lowering of demand-pull inflation, assuming the economy is producing with spare capacity, the fall in AD thus leads to a fall in real output, causing negative economic growth. As a result, firms are likely to decrease the derived demand for labour. Aggregate demand for labour (AD_L) decreases, and assuming that there are sticky wages at W_1 due to contractual agreements, there is increased demand-deficient unemployment of $L_D L_S$. The appreciation of the SGD to achieve low and stable inflation thus causes a **trade-off with the other goals of high and sustained growth as well as low unemployment.**



Development 3: Explain the factors that influence the extent to which trade-offs will occur

[Linking to the question] The extent that trade-offs occur depends on the extent to which the X and $(X-M)$ falls, and this is in turn affected by a few factors, which will be explained in the next part.

Note: Students should explain and evaluate about 2-3 factors

Factor #1: Reliance of the economy on imported inputs

Even though the appreciation leads to higher export prices, which threatens SG's export competitiveness, when the SGD is allowed to appreciate, imported factor inputs become cheaper in SGD. With cheaper imported factor inputs, the cost of production falls and this translates into cheaper prices of final goods. As a result, the effect of the appreciation on export prices in foreign currency may be partially offset by the cheaper prices of final goods produced. Export prices due to the appreciation may not rise as significantly, bringing about a smaller fall in demand for exports and export revenue.

[Link to question] In light of this, there is a smaller extent to which trade-offs with the other macroeconomic goals will occur when an appreciation is used to lower GPL.

EV (consider the nature of SG's economy): Given that SG is resource scarce and therefore reliant on imported inputs in the production of goods, the appreciation will hence have a significant impact on the extent of trade-off due to the fall in X . The loss in export competitiveness caused by the stronger currency will bring about a more significant offsetting effect due to the fall in the cost of production and the extent of trade-off will be to a much smaller extent for Singapore.

OR

EV (consider the nature of exports in SG): However, if a large proportion of Singapore's export revenue is contributed by exports in services, then the trade-off with a healthy BOP may be more significant. This is because in industries which export services, a relatively smaller proportion of its inputs would be imported and hence, these industries benefit less from the appreciated SGD in the form of cheaper inputs. The higher export prices due to the appreciation would lead to a significant fall in export revenue, hence giving rise to a more significant trade-off where the deficit in the BOP could be greater.

Factor #2: Whether the M-L condition holds

Whether or not the appreciation of the SGD leads to a fall in $(X-M)$ and hence worsen the trade balance as well as lower AD depends on whether the Marshall-Lerner condition holds. In the short run, the PED_x and PED_m may not be greater than 1 due to existence of contractual agreements between SG and its trading partners. Hence, when there is an appreciation of the SGD, $(X-M)$ increases in the short run, before decreasing later on. As a result, since $(X-M)$ increases, the appreciation of the SGD doesn't actually lead to a worsening of the trade balance or negative growth and demand-deficient unemployment in the short run but instead, may in fact promote an improvement in the trade balance and allow for actual growth. **[Link to question]** As such, the shorter the time period, the higher the likelihood that the M-L condition does not hold and thus, the smaller the extent to which trade-offs with other macroeconomic goals will occur.

Factor #3: Size of the appreciation and characteristics of the SG economy

The size of the appreciation also matters. [\[Link to question\]](#) The greater the extent of the appreciation, the larger the impact on (X-M) is and hence the larger the impact on the trade balance as well as AD. This will cause a greater likelihood for trade-offs with the three other macroeconomic goals to occur.

Also, given the small and open nature of SG, the (X-M) component in AD is relatively significant. Hence, any changes to (X-M) will cause significant changes to AD and hence, real output, via the multiplier process. [\[Link to question\]](#) Given that this is the case, the likelihood and extent of trade-offs will be much greater since SG is an open economy, with a high trade-to-GDP ratio.

EV (consider the likelihood that there will be a large extent of appreciation):

However, given that the Monetary Authority of Singapore (MAS) generally pursues a modest and gradual appreciation of the SGD. There is a lot of careful consideration of the impacts the appreciation would bring on other aspects of the economy by the MAS in their pursuit of such a policy. In light of this, the extent of trade-offs due to an appreciation is less likely.

Factor #4: State of the global economy (i.e. external factors that influence X)

There are also factors that are not within the control of the SG economy in determining the extent to which the appreciation of the SGD will lead to trade-offs in other macroeconomic goals. For e.g. should there be strong economic growth worldwide, there could be rising incomes which causes higher purchasing power of SG's trading partners' for SG's exports. In light of that, even though SG appreciated its currency which will reduce demand for SG's exports, the higher incomes worldwide may increase the willingness of other countries to import from SG, thereby increasing our export revenue and hence AD. A stronger currency therefore causes a fall in export competitiveness by a small extent, assuming that the global economy demand is strong. Thus there may only be a slight fall in AD and the negative impact on actual growth and employment may be limited. [\[Link to question\]](#) The greater the increase in incomes due to worldwide economic growth, the smaller the extent to which the appreciation of SGD leads to trade-offs with the other three macroeconomic goals.

EV (consider how likely other economies will impact SG's economy): The extent to which this factor influences the extent of trade-off is dependent on the closeness of the trading partners to SG. Should there be rising incomes in SG's closest trading partners, then the extent of trade-off will be much lesser, compared to a case where rising incomes are observed in economies which are not as close to SG as a trading partner.

Factor #5: Whether the SG government puts in place other policies to achieve the other macroeconomic goals (i.e. other policies to increase AD/ improve export non-price comp.) Note: Explaining one policy will suffice.

Other policies may also be pursued simultaneously with an appreciation to achieve other macroeconomic goals as well.

Supply-side policies: For e.g. supply-side policies (e.g. subsidies for investment in R&D for product innovation) may also improve the non-price competitiveness of exports from SG. Hence, in spite of the lower price competitiveness of SG's exports due to the appreciation, the non-price competitiveness of the exports may still result in a high demand for it and hence, still allow for an increase in X and AD overall. As such, the appreciation may not necessarily lead to a trade-off with the goals of a healthy BOP, as well as economic growth.

OR

Expansionary FP: For e.g. expansionary fiscal policy may be employed to boost domestic demand so as to achieve actual growth. As such, even with the appreciation of the SGD which has effects like lowering the AD through lowering external demand and causing negative growth, the use of an expansionary FP to boost domestic demand may offset the fall in AD, and should the injection of G be significantly larger than any fall in X due to the appreciation, overall AD may rise and bring about an increase in real output instead. Hence, there may not necessarily be negative growth and demand-deficient unemployment when the SGD is allowed to appreciate, if there are other expansionary demand-management policies put in place at the same time.

[Link to question] Hence, the more there are alternative policies put in place to complement the appreciation of SGD in promoting high export demand, and the more successful these policies are, the smaller the extent to which trade-offs with other macroeconomic goals will occur given an appreciation of the SGD.

EV (consider how useful the policies are): However, this depends largely on the success of the policies. Given that efforts in R&D and innovation take time and may not always reap positive outcomes, the use of supply-side policies may not necessarily allow for improved export competitiveness. The impact of an appreciation may still hurt export competitiveness and the trade-offs brought about may still be significant.

Conclusion [show ranking of factors]:

The use of an appreciation may result in trade-offs between certain macroeconomic objectives, but these trade-offs do not always occur as it depends on various factors, the most important one being, whether or not the M-L condition holds. This is because this condition has a direct impact on the success of the policy to address inflation, in particular, demand-pull inflation. Overall though, given that the MAS generally pursues an appreciation of the SGD that is modest and gradual, there will not be large increases to the external value of the SGD and hence, the extent to which trade-offs occur will be much lesser.

Nevertheless, in order to minimise conflicts in government's objectives, the use of supply side and trade policies should be implemented to ensure that the demand for her exports remains strong with a larger export market and greater improvement in the quality of her exports. The focus on raising productivity is also important to maintain Singapore's competitiveness. These policies will be able to offset further some of the loss in exports competitiveness when Singapore adopts a strong exchange rate policy.

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	Clear analytical explanation of various trade-offs and the factors that influence the extent of the trade-offs, in the context of Singapore	15 – 20
L2	Description of trade-offs that occur as a result of an appreciation of the SGD and some factors that influence the extent of the trade-offs OR analytical explanation of at least 2 trade-offs that occur as a result of an appreciation of the SGD and at least 1 well-explained factor which considers the extent of trade-off	9 – 14
L1	Knowledge of how an appreciation of the SGD works to address macroeconomic goals in SG (i.e. to tackle both cost-push (imported) inflation as well as demand-pull inflation) i.e. explanation of the intended outcome of an appreciation of the SGD.	1 – 8
	Allow up to 5 additional marks for Evaluation	
E3	For an answer that arrives at an analytically well-reasoned judgment on the extent to which trade-offs in macroeconomic objectives occur when there is an appreciation of the SGD.	4-5
E2	For an answer that makes some attempt at evaluating or for a conclusion that answers the question but does not explain the judgment or base it on analysis.	2-3
E1	For an answer that gives an unsupported evaluative statement.	1