

**H2 Economics – Essay Model**

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Topic: Exchange Rates & International Trade

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*In October 2005, the MAS stated that its policy of allowing the Singapore dollar to strengthen against a basket of currencies would be maintained.*

*Using a diagram, explain what might cause a country's exchange rate to appreciate in a floating exchange rate system. [10]*

Exchange rate of a currency is the rate at which the currency can be exchanged for other currencies. This rate is essentially a measure of the value of the currency in terms of other currencies. The floating exchange rate system subjects the value of the currency to free market forces, thus allowing the exchange rate to be determined by the supply and demand for the currency in the foreign exchange markets. Therefore, the exchange rate of a country's currency would be subjected to changes resulting from shifts in the supply and demand for that particular currency.

The demand for a currency is derived from the demand for the goods and services of the country, including the capital management services and investment products; therefore the demand for a currency is affected both by trade flows and capital movements. The supply for currency on the other hand, is derived from the country's appetite for imports of goods and services as well as changes in money supply managed by the government's policies. The equilibrium exchange rate is the intersection between the demand and supply for the currency, much like any other goods in the market.

Therefore, the currency would appreciate when the demand of the currency exceeds the supply at a particular exchange rate. This could happen when demand rises as supply stay constant, when supply shrinks and demand stays constant. The rate would definitely appreciate when the demand expands and supply contracts at the same time. The exchange rate could also appreciate in the event of shifts occurring for both demand and supply but with demand rising faster than supply or when supply falls faster than demand.

[Diagram of the demand and supply of Singapore currency, with axes labeled as value of SGD\$1 in US dollars and the quantity of SGD; demand for SGD shifts right with supply constant]

The increase in demand for Singapore dollars as demonstrated by the rightward shift in the demand curve produces the effect of an appreciation in the exchange rates. Originally at  $R_1$ , the exchange rates have risen to  $R_2$  when the supply stays constant. This rise in demand could be due to improvements in the exports of the country that results in foreigners buying more Singapore goods, or caused by the inflow of capital into Singapore's financial sector because of excellent capital management services.

As mentioned, the currency can also appreciate in the event of a supply fall. That would mean a leftward shift in the supply curve as shown in the diagram below. The fall in supply could be a result of capital outflow from the country following loss of confidence in the financial sector of the country or a fall in the amount of goods imported by the country resulting in the contraction of supply of the currency available in the foreign exchange market.

[Diagram of the demand and supply of Singapore currency, with axes labeled as value of SGD\$1 in US dollars and the quantity of SGD; supply for SGD shifts left with demand constant]

Of course, the combination of both these shifts would also bring about an appreciation of the exchange rate for the currency. Likewise, even if the supply and demand are moving in the same direction, as long as the quantity demanded is below the quantity supplied at the prevailing exchange rate, there would be pressure for the exchange rate to appreciate.

*Discuss the extent to which problems are likely to result from an appreciation of Singapore's exchange rate. [15]*

The appreciation of Singapore's exchange rates would have a great impact on the economy of Singapore. Since a third of Singapore's GDP depends on the external sector, the exchange rate appreciation that will impact on the performance of the external sector of the economy and thus the economy. Typically, the appreciation of exchange rates would hurt the exporting industries because of the rising prices from the perspectives of the foreign markets but for the case of Singapore, the extent to which problems would result from an appreciation of the currency value is rather low. As a result, the appreciation of Singapore's exchange rate is actually a long term policy for the Monetary Authority of Singapore.

The appreciation of Singapore's exchange rates implies that the demand for the currency is outstripping the supply. It could be a result of short term capital flows or rising demand for our exports. Likewise it can be a result of intervention by the MAS to appreciate the Singapore dollar through buying up our currency with foreign exchange reserves accumulated in the past. In any case, the appreciation of Singapore exchange rate would make imports appear cheaper to our local market and our exports would appear more expensive for the foreign markets.

As mentioned, currency appreciations typical hurt the export sector because our goods becomes more expensive for the consumers overseas and they would decidedly import less of it. Essentially, the quantity demanded by them would decrease. However, the actual effect on our export revenue would depend on the price elasticity of demand for the goods that we export. For goods that have price inelastic demand, the export revenue would actually rise since the quantity demanded of the goods would fall less than proportionate to the rise in prices of the goods as illustrated below.

[Diagram of demand for a generic price inelastic good; at higher prices, the area that denotes the revenue is bigger than that of lower prices]

[Diagram of demand for a generic price elastic good; at lower prices, the area that denotes the revenue is bigger than that of higher prices]

On the other hand, the goods with price elastic demand would have their quantity demanded falling more than proportionate to the rise in prices and thus result in falling revenue for the exporting industry. Singapore's exports are generally slightly price elastic goods like high technology components (silicon wafer fabrication), scientific research services and pharmaceutical products. A currency appreciation would thus result in an expected decline in export revenues, presenting a problem of potential increase in unemployment. In particular, the service exporting sectors that relies solely on domestic inputs would face problems maintaining their competitiveness in the global economy. Economic growth would also lag as a result.

Nevertheless, the appreciation of Singapore dollars would also mean that prices of imports would decrease. Our total quantity demanded for imports would thus rise but once again, import expenditure depends on the price elasticity of demand of the imports. The expenditure on imports falls for imports that are price inelastic and rises for the imports that are price elastic. For an island country like Singapore, which is particularly dependent on imported goods, our imports have demands which are price inelastic, so the appreciation of Singapore currency would reduce our expenditure on imports. The ultimate impact on the trade balance of the economy would thus depend on the relative effect the currency appreciation have on the export revenues and import expenditure.

Interestingly, for Singapore, which is so dependent on imported goods, even for our export industry, the falling cost of imports would help mitigate the effects of currency appreciation on the exporting sector, often even offsetting its effects. As Singapore consists of much trading firms, importing goods to be re-exported to other markets or firms whose final products depends on imported raw materials or intermediate goods, the appreciation of currency would help to reduce the cost of production for these firms. The reduction in cost helps these firms become more cost competitive relative to their foreign competitors and thus enables them to slash prices of their products in foreign markets to offset the effects of the currency appreciation and continue to maintain their competitiveness. This helps to sustain and even grow our exporting industries, promoting both rises in employment and economic growth. Thanks to this phenomenon, the problem generally associated with currency value appreciation is not serious in the case of Singapore.

Of course, the need for Singapore firms to maintain competitiveness both in terms of cost, production methods and technology must not be ignored and this also contribute to Singapore's continued success in

pursuing a strategy of export-driven growth. As a result, MAS is able to continue with their policy of a gradual appreciation of Singapore dollars against the basket of currencies to help ensure continued growth for the economy.