INTL 2200S
Assignment *#2*

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For: Farrokh Zandi
By: Haseeb Afridi
Student Number: 215 011 687
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Impacts of an Exchange Rate Adjustment

Assume the US Dollar experiences a major real and nominal appreciation. Given this scenario, you are to discuss how 4 export-driven Asian economies will be impacted by this dollar Appreciation.

You should identify the key export and import items for each of these countries as well as their pattern of trade. At least one of the countries of your choice should operate under floating (flexible) exchange rates system and one under fixed exchange rates system. Furthermore, at least one of these countries should be oil exporting.

SOUTH KOREA – Floating Exchange Rate
BAHRAIN - Pegged to the USD
SAUDI ARABIA – Oil Exporter
SINGAPORE – Floating Exchange Rate

	South Korea	Bahrain	Saudi Arabi	Singapore
Main Export	Integrated Circuits; 10%, $48B	Refined Petroleum; 29%, $3.7B	Crude Petroleum; 55%, $101B	Integrated Circuits; 21%, $66B
Main Import	Crude Petroleum; 11%, $43B	Cars; 11%, $1.3B	Cars; 9.6%, $16B	Integrated Circuits; 14%, $36B
Pattern of Trade	South Korea has been in a positive trade balance since 1998. They mainly export to China; 26%, $124B, and USA; 14%, $66.7B. South Korea mainly imports from China; 22%, $94B, as well as Japan; 12%, $46.2B.	Bahrain floats between being in positive and negative trade balance. They mainly export to Saudi Arabia; 19%, $2.34B, and the UAE; 18%, $2.23B. They mainly import from the UAE; 15%, $1.77B, and the USA; 8%, $899M.	Saudi Arabia has been in positive trade balance since 1998. The majority of exports go to China; 15%, $26.7B, and the USA, 11%, $20.9B. The majority of imports originate from China; 14%, $23.4B, and the USA; 11%, $18.8B.	Singapore has broken into a positive trade balance in 2016, prior to which Singapore was trading at a deficit. Singapore mainly exports to China; 14%, $43B, and Hong Kong; 13%, $41.6B. Singapore mainly imports from China; 16%, $45B, and the USA/Malaysia; 12%, $27B.

The appreciation of the USD relative to other currencies suggests that the USD is stronger relative to these other currencies. This has certain implications on each of these countries' monetary policy and the price of goods within the country. The following deductions should be seen in light of the fact that all the countries proposed import heavily from China. China pegs its currency to a basket of currencies, the USD holding the largest weight in the basket, and therefore, any appreciation or depreciation in the

USD will be reflected in the CNY. This appreciation in the CNY will have certain implications on the following currencies. *

South Korea – Floating Currency

South Korea has a floating currency. This means that the central bank of South Korea has power over the money supply of the KRW and that they can choose how much KRW they want present in the markets. This, however, suggests that an appreciation in the USD will have effects on the KRW's purchasing power relative to the USD. An appreciation in the USD will mean that there will be a relative depreciation in the KRW. Because of this depreciation, US imports of Korean goods will look more attractive as the same Korean goods now cost less to import. Therefore, there will be an increased demand for Korean goods. In order to purchase Korean goods, holders of the USD will need purchase KRW in order to import Korean goods. Because of the increased demand for KRW along with the fact that the number of KRW in the markets is limited, the KRW will appreciate. This will be relative to the now appreciated USD as well as all other countries. An appreciation in the USD will result in an appreciation of the KRW. This appreciation will be larger than the appreciation of other countries because of USA's influence on Korean goods; the USA is South Korea's second largest export destinations. USA will import more than they previously did, increasing the now 14% of Korea's export industry. An appreciation in the KRW will have a resulting decrease in exports to other countries as the KRW is now more expensive. A resulting appreciation of the KRW due to an appreciation in the USD will cause Korean exports to be more expensive to countries not affected by the appreciation of the USD. The net effect on exports will be a function of the increase in price of Korea's exports along with the elasticity of Korea's exports. Korea's main export are integrated circuit boards. South Korea currently supplies 12% of the world's integrated circuits; the 4th largest supplier of the world preceded by Hong Kong, Singapore, and China. This suggests that there is limited elasticity to the commodity. A price raise of an inelastic commodity generally results in a positive net effect on the trade of the commodity for the export country, and therefore, there would be a positive effect on South Korea's export industry. A stronger KRW will also make imports cheaper as the same KRW will be able to purchase more relative to prior to the appreciation. The increase of exports by the USA will drive the balance of trade, reduced exports to other countries will reduce the balance of trade, and an increase in imports will reduce the balance of trade. The result on the Korean economy is a net of the effects by increased exports by USA, decreased exports by other economies, and increased imports by Koreans.

Bahrain – Pegged to the USD

Bahrain has a pegged currency. They peg their currency to the USD. This has implications as to how an appreciation in the USD will affect the Dinar and the economy of Bahrain. Because Bahrain has its currency pegged to the USD, they will attempt to keep the currency exchange rate the same as prior to the appreciation. This means that, although they want the exchange rate to stay the same, the money supply of the BHD will be flexible. In order to maintain the currency exchange rate, Bahrain will attempt to "appreciate" their own currency by buying out the BHD in the markets. This will be done by trading in currencies that Bahrain has managed to stockpile in exchange for BHD. By buying out the BHD in the markets, Bahrain will reduce the supply, driving the price up, and effectively matching it with the appreciated USD. This can be problematic in numerous ways. The first is that Bahrain has a limited stockpile of foreign currency. If Bahrain fails to produce enough funds to keep the BHD pegged to the USD, the currency will crash and result in failure of the economy. Alongside a potential economy crash, pegging the BHD to an appreciated USD will have counter effects on the Bahrain export and import industry. In this case, exports may be negatively affected because of the appreciated BHD. Because Bahrain pegs the BHD to the appreciated USD, Bahrain goods will be more expensive, and therefore, Bahrain's export industry may be negatively affected. This can be determined by analyzing the elasticity of Bahrain's main export; refined petroleum. Refined petroleum is an inelastic commodity of which there are producers that are much larger than Bahrain. However, because the OPEC nations and the USA are amongst the largest producers of refined petroleum, there will not be a huge short-term effect on Bahrain's exports of refined petroleum. Because the world needs refined petroleum, there will not be a significant loss on export quantity relative to price increase, and therefore, the net effect on exports will be positive. Bahrain will also increase demand for imports as, now, they are able to import more foreign goods for the same amount of BHD. The effect of the appreciation of the USD will have an ambiguous effect on the trade balance of Bahrain as there is a positive balance of trade effect by exports and a negative balance of trade effect due to imports.

Saudi Arabia – Oil Producer, pegged to the USD

Similar to the BHD, the SAR is pegged to the USD. This means that there will be similar effects on Saudi Arabia's economy as was with Bahrain. Saudi Arabia will attempt to appreciate the value of the SAR so that it maintains the same exchange rate. This means that the central bank of Saudi Arabia will buy out SAR, appreciating the price of the SAR. The resulting impact is that the SAR will appreciate along with the USD, which will have resulting impacts on Saudi Arabia's imports and exports. Importing goods from other countries will be cheaper, and therefore, Saudi Arabia will have an increased demand for imports. Imports from the USA will be of the same demand, whereas imports from countries not pegged to the USD will be more attractive. The export industry may be hurt as the appreciation of the SAR will make Saudi Arabian exports more expensive for other countries. The price of oil will increase, but quantity of oil demanded will not decrease at the same percentage as the price increase was. As previously stated, this is because of the dual effect of inelasticity of oil along with the supply power that OPEC has, of which Saudi Arabia is part of. The result will be a positive effect on the export industry as they will be exporting slightly less oil for a much greater price. Countries who import from OPEC and USA will, however, be tempted to purchase their oil from countries whose currency has not appreciated, such as Russia. The effect of the appreciation of the USD will have an ambiguous effect on the trade balance of Saudi Arabia as there is a positive balance of trade effect by exports and a negative balance of trade effect due to imports.

Singapore – Floating Exchange Rate

Singapore has a floating exchange rate. This means that the implications of an appreciated USD will have different affects on the Singapore economy relative to a fixed-currency economy. An appreciation in the USD is synonymous to a relative depreciation in the SGD. This implies that Singaporean exports to the USA and other USD-driven economies will be less expensive following the appreciation of the USD. Because these exports are now less expensive, USD holders will be more inclined to import Singaporean goods and will therefore demand SGD. Because of this increase in demand for the SGD, the SGD will appreciate relative to the already-appreciated USD. This is due to the fact that the SGD is a floating currency. By determining the SGD as a floating currency, the Singaporean central bank is able to exercise power over the supply of the SGD in the markets. Because of the cap on SGD in the market, the price of SGD fluctuates, or in this case, appreciates due to an increasing demand. This, however, may or may not be as large an appreciation as that which vibrates through the world. Because the USA is a large player in the import and export industry, a large number of currencies will appreciate along with the appreciation in the USD. An appreciated USD, however, has certain implications on Singapore's economy in specific. Because Singapore imports quite heavily from the USA; one of the top three destinations where imports come from, there will be implications of an appreciated USD. Because the USD will have a larger appreciation relative to the SGD, USA imports will be more expensive. This means that, because of rising prices, Singapore will be more inclined to find alternative sources to satisfy the needs of Singapore. Following the assumption that Singapore receives its main import, integrated circuits, from the USA, we can assume that Singapore will be able to import integrated circuits from other producers of the commodity, such as China, Hong Kong, or South Korea. The problem is that, however, two of these countries peg their currency to the USD, and therefore, the price of integrated circuits will still rise along with the appreciation of the USD. We can assume that, because of this majorly inability to find alternatives, the commodity is inelastic, and a price increase will result in a negative balance of trade effect. Singapore will still need to import integrated circuits. Although demand will shrink, price will relatively rise on a much larger percentage, and the result will be more a greater outflow of money for a reduced amount of integrated circuits. Because integrated circuits are relatively inelastic, countries will continue to demand integrated circuits from Singapore, as this is their main export. The net effect on exports will be positive as, although there will be a slight decrease in quantity demanded for integrated circuits, there will be a larger increase in price relative to the decrease in quantity demanded with a net positive effect on exports. The impact on the Singaporean economy will be a net of the increase in imports as well as the increase in exports.