Week 12 Recitation

For this week's recitation, we will explore how exchange rates work, and how the supply and demand model can help us understand their fluctuation. After studying that model and observing how countries can use policies to change their exchange rates, we will take a look at some real world data that shows us how to identify the exchange rate policy adopted by selected countries.

1) Suppose that you're interested in studying the exchange market of European Union Euros and Japanese Yen, focusing on Japan's government and the exchange rate policies that they could adopt. Draw the supply and demand model for that market. Your graph should clearly show: the label of the X-axis, the label of the Y-axis, the supply and demand curves, and the equilibrium (which is at 132 Yen per Euro – therefore 0.0076 Euros per Yen, with $5,043 billion of Yen traded for Euros every day).

2) The Japanese government is afraid that there are too little locally produced goods in their domestic market, so they decide to decrease Japan's level of exports by targeting to achieve the rate of 103 Yen per Euro (0.0097 Euros per Yen). First, explain why such a policy would likely decrease the level of exports and debate whether or not it would be successful. Then, show graphically if the targeted exchange rate would lead to a shortage or surplus of Yen in the market.

3) Now, consider the case where the Japanese government announces in advance that it is committed to using monetary policy to reach the desired Euros per Yen ratio. How does the announcement alter the price and quantity of Yen in the market (through altering exchange rate expectations)? Will the new equilibrium result in more, less, or the same quantity of Yen traded for Euros in the market?

4) The Japanese government observes that the announcement of a new monetary policy aiming to strengthen the Japanese Yen is not enough to bring the Euros per Yen ratio to the desired level, so they decide to change the interest rate. Should the Central Bank increase or decrease the interest rate? Will the new equilibrium result in more, less, or the same quantity of Yen traded for Euros in the market?

5) Now let us observe some real-world exchange rates. Access https://www.xe.com/, click on the "Charts" tab, and answer the following questions:

    a. Analyze the Saudi Arabian Riyal to US Dollar exchange rate during the past 10 years by selecting those currencies than clicking on the "10Y" at the top of the graph. What does the graph tell us about the exchange rate policy of Saudi Arabia during that period?

    b. Do the same procedure for the Nicaraguan Cordoba to US Dollar exchange rate. Is there a trend of appreciation, depreciation or constant value of the Nicaraguan currency when measured in US Dollars?

c. Now look at the Swiss Franc to US Dollar exchange rate and compare it with the fluctuations of the Nicaraguan Cordoba analyzed above. Can you infer which exchange rate policies the Swiss Central Bank and the Nicaraguan Central Bank likely adopted during this time frame? Is there a trend of appreciation, depreciation or constant value of the Swiss currency when measured in US Dollars? Now look at the Swiss Franc to Euro exchange rate. Does this change your opinion about what exchange rate policies have been used by Switzerland?

d. If time permits, pick another country and analyze any patterns in their exchange rate.