

ECO 120: Global Macroeconomics
Week 4 Homework: Market for Currencies

Directions: Notice that all problems ask you for a descriptive answer in addition to performing a calculation or manipulating a graphical model. For full credit, make sure that you do both. You may print these sheets and put your answers in the space provided or you may use your own paper to write your answers.

When you have finished, scan or take pictures of your work, combine all images to a single PDF file, and upload your work as a single PDF file to the Canvas Assignment area. There are apps available for Apple and Android mobile devices that can create PDF documents using your device's camera, including the Apple iPhone's native *Notes* app (use the *scan document* feature) and *Adobe Scan* app available for Android and Apple mobile devices. There are also free online tools such as <https://online2pdf.com/> and <https://www.easypdfcloud.com/>.

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For problems 1, 2, and 3, read the scenario and do the following (in order):

- For each problem, draw both currency markets. Example: if you are asked a question on the exchange rate between U.S. Dollars and Euros, you should draw the market for U.S. Dollars and market for Euros. It is true that these two graphs are redundant, so every change in one market has a corresponding change in the other market.
- Make sure you correctly label each market, both axes in each market, and both the supply and demand curves in each market.
- Determine if the scenario causes a shift in the demand and/or supply curve for each currency. If so, answer which curve(s), and which direction.
- Draw the supply and demand curves in both markets with appropriate shifts.
- Label the original and new equilibrium exchange rate and quantities.
- What is the impact of the relative value of each currency? What is the impact on quantity of currency traded?

1. Suppose Australia experiences a mining boom with a sharp increase in exports of iron ore and coal to China. Describe and illustrate the impact on the exchange rate between the Australian Dollar (AUD) and the Chinese Yuan (CNY).
2. Crude oil, priced in U.S. dollars, experienced global declines in price over 2024, leading to less revenue for many oil-exporting countries. Curde oil is one of Colombia's largest exports. Describe and illustrate the impact of the decline in global oil prices on the exchange rate between the U.S. Dollar and the Colombian Peso.

3. Suppose the Indian government announces major tax incentives for foreign businesses to investment in production facilities in India, leading to a surge in foreign direct investment into India. Describe and illustrate the impact on the exchange rate between the Indian Rupee (INR) and the U.S. Dollar (USD).
4. Suppose financial investors expect the U.S. Dollar to appreciate against the Euro over the next three months. Describe and illustrate the impact on the exchange rate between the U.S. Dollar (USD) and the Euro (EUR).

5. On January 27, 2025, the exchange rate between the Euro (EUR) and the United Kingdom Pound Sterling (GBP) was $1 \text{ GBP} = 1.19 \text{ EUR}$.
- (a) Suppose a French person is buying a car in the United Kingdom for 50,000 GBP. What will be the price in Euros?
- (b) Suppose a British person is traveling in Spain, and hotel room costs 230 EUR. What is the cost in U.K. Pounds?
- (c) One year ago, on January 27, 2024, the exchange rate was $1 \text{ GBP} = 1.17 \text{ EUR}$. From 2024 to 2025, did the U.K. Pound Sterling appreciate or depreciate against the Euro? Did the Euro appreciate or depreciate against the U.K. Pound Sterling?