

ECN 360
Homework 6
Due: 12/7/2021

Directions: Answer each question on your own choice of paper. Please be neat! Submit your homework via email to me at: ccdougla@umich.edu A .pdf is preferred, though any file works in practice.

1. Use the information in the following table on Switzerland's 1998 international transactions to answer the questions below (amounts are in millions of U.S. dollars).

| <u>Balance of Payments Account</u> | <u>Amount</u> |
|---|----------------------|
| Merchandise imports | \$92,871 |
| Merchandise exports | \$93,859 |
| Services imports | \$15,406 |
| Services exports | \$26,683 |
| Investment income receipts | \$43,720 |
| Investment income payments | \$27,702 |
| Unilateral transfers | -\$3,736 |

- a. Is Switzerland running a trade deficit or surplus in terms of goods? If so, how much?
- b. What is the size of the current account?
- c. Did Switzerland become a larger international creditor during 1998?
2. A bicycle manufactured in the United States costs \$175. Using the exchange rates listed in Table 13.1, what would the bicycle cost in each of the following countries? Table 13.1 is included at the end of this homework in case you do not have a copy of the book. Use the Spot exchanges rates from the table in answering this question.
- a. Argentina
- b. Brazil
- c. Canada
- d. Hong Kong
- e. India
- f. Mexico
- g. Philippines
3. What is the cross rate implied by the following quotes:
- a. $\text{C\$/\$} = 1.5613$, $\text{\$/\text{€}} = 1.0008$; $\text{C\$/\text{€}} = ?$
- b. $\text{¥/\$} = 124.84$, $\text{\$/\text{£}} = 1.5720$; $\text{¥/\text{£}} = ?$
- c. $\text{SF/\$} = 1.4706$, $\text{C\$/\$} = 1.5613$; $\text{SF/C\$} = ?$

4. Suppose $\text{£}1 = \$2.4110$ in New York, $\text{€}1.050 = \$1$ in Paris, and $\text{£} = \text{€}2.50$ in London.
- If you begin by holding $\text{£}1$, then how could you profit from these exchange rates? (Hint: Calculate the cross-exchange rates and then “buy low and sell high”)
 - Ignoring transaction costs, what is your arbitrage profit per pound initially traded?
5. Suppose you are the treasurer of a firm importing calculators from Japan. You must pay ¥62,500,000 in 90 days. The current spot rate is \$0.005 per yen. But you expect the yen to appreciate against the dollar over the next 90 days and buy a call option contract on the yen. The premium on the option is \$0.0002 per yen and the striking price is 0.0055. Recall that Yen option contracts are sold in blocks of ¥6,250,000 per contract (see chapter 13 of the book).
- How many contracts do you need? What is the dollar cost of the contracts you need?
 - If the spot rate in 90 days is 0.0052, do you exercise the option or let it expire?
 - What was your dollar gain or loss from holding the option contract?
 - If the spot rate in 90 days is 0.0057, do you exercise the contract or let it expire? What was your dollar gain or loss from holding the option contract in this case?

TABLE 13.1**Foreign-Exchange**

Foreign Exchange
Friday, July 18, 2003

| | | Spot | Bid/C Spn |
|-----------------------------------|------------|---------|--------------|
| Europe | | | |
| Czech Rep. | (Koruna) | 14.5313 | 206 |
| Denmark | (DKr) | 4.7062 | 05' |
| Hungary | (Forint) | 144.256 | 14 |
| Norway | (Nkr) | 5.0794 | 77 |
| Poland | (Zloty) | 2.0285 | 27 |
| Russia | (Rouble) | 23.2128 | 10 |
| Slovakia | (Koruna) | 19.1411 | 28 |
| Sweden | (SKr) | 5.9637 | 62 |
| Switzerland | (SFr) | 1.0212 | 20 |
| Turkey | (Lira) | 1.1868 | 8' |
| UK (0.5009) ¹ | (£) | 1.9965 | 9' |
| Euro (0.6308) ¹ | (Euro) | 1.5852 | 8 |
| SDR | — | 0.6118 | |
| Americas | | | |
| Argentina | (Peso) | 3.0238 | 2 |
| Brazil | (R\$) | 1.5923 | 5 |
| Canada | (C\$) | 1.0055 | 6 |
| Mexico | (New Peso) | 10.2058 | 1 |
| Peru | (New Sol) | 2.8498 | |
| USA | (\$) | — | |
| Pacific/Middle East/Africa | | | |
| Australia | (A\$) | 1.0288 | |
| Hong Kong | (HK\$) | 7.7973 | |
| India | (Rs) | 42.7600 | |
| Indonesia | (Rupiah) | 9148.00 | |
| Iran | (Rial) | 9143.00 | |
| Israel | (Shk) | 3.4100 | |
| Japan | (Y) | 106.735 | |
| Kuwait | (Dinar) | 0.2657 | |
| Malaysia | (M\$) | 3.2445 | |
| New Zealand | (NZ\$) | 1.3120 | |
| Philippines | (Peso) | 44.4550 | |
| Saudi Arabia | (SR) | 3.7495 | |
| Singapore | (S\$) | 1.3535 | |
| South Africa | (R) | 7.5500 | |
| South Korea | (Won) | 1013.85 | |
| Taiwan | (T\$) | 30.3560 | |
| Thailand | (Bt) | 33.3150 | |
| U A E | (Dirham) | 3.6729 | |

¹ Exchange rates are foreign currency price of the dollar.