

Chapter 1: Globalization and The Multinational Firm

1. List 3 unique aspects of international business (no need to explain)
 - Expanded opportunity set and comparative advantage
 - Additional Risks (Exchange risk, Political risk)
 - Market imperfections
2. Differentiate between absolute advantage and comparative advantage.
=> Absolute advantage is based on the production efficiency for each industry between the two countries, while comparative advantage is comparing the production efficiency across industries between the two countries.
3. Country A has an opportunity cost of 2 yards of textiles per one pound of food, and Country B has an opportunity cost of 3 yards of textiles per one pound of food. Determine the comparative advantage, and explain how free trade could enhance the well-beings of these countries. (You may want to make up numbers to construct the input-output table).

=> Assuming that each country has the same amount of resources (100) and each country splits its resources evenly between the two products, A may have 50 pounds of food and 100 yards of textiles (note that we satisfy 2 yards of textiles per one pound of food), and B may have 50 pounds of food and 150 yards of textile. Since B has a comparative advantage in the production of textiles, B can get specialized in the textile production and A can get specialized in the food production. In this case, the world production of textiles can be increased from 250 yards to 300 yards, while the world production of food remains the same at 100 pounds.

4. a) How many SFs can you get for 20 dollars if SF/\$=1.5?
b) If \$ value doubles, then how much SF is up against \$?
c) yen/\$ was 201.6 in 1948 and it is now 108.2. How much yen has appreciated from 1948?
d) yen/\$ = 108.2, BP/\$ = 0.548. What is the BP/yen?

=> a) $\$20 \times 1.5 \text{ (SF/\$)} = 30 \text{ SFs}$

b) $\$1/\text{SF} \rightarrow \$0.5/\text{SF} \Rightarrow (0.5 - 1)/1 = -0.5$ It is up -50%

c) $S_0 = 1/201.6$, $S_1 = 1/108.2$,

$$\frac{S_1 - S_0}{S_0} = \frac{.00924 - .00496}{.00496} = \frac{.00428}{.00496} = .8629 = 86.29\% \text{ approximately, } 86.32\% \text{ exactly}$$

d) yen/\$ = 108.2, BP/\$ = 0.5480 $.5480 \text{ BP/\$} \times 1/108.2 \text{ \$/Yen} = .005065$

5. Differentiate between:
 - a) Linear vs. log scales
 - b) Standard deviation vs. coefficient of variation=> a) Linear scales evaluate an absolute value change, whereas logarithm scales evaluate the percent change.

b) Both are measure of dispersion of a set of data from its mean, but coefficient of variation is considered as a better tool to evaluate volatility as it is independent of the level (Absolute measure of volatility, relative measure of volatility & level free. Example: standard deviation tends to large for a variable with a greater magnitude, while coefficient of variation is looking at a % change. A fat person tends to have a greater change in the weight (gaining or losing 5 pounds is a everyday event) than a thin person. To be fair, we need to make it a level free. That is what percentage of weight (instead of how many pounds) each person gain or lose a day).

6. (a) How many SFs can you get for 20 dollars if \$/SF=0.8?

(b) If the value of SF increases 30%, then how much \$ is up against SF?

(c) Yen/\$ was 133.59 in Feb 2002, depreciated about 18.06% from two years ago. What was the yen/\$ rate in Feb 2000?

(d) If yen/\$ = 108.2, yen/BP = 197.45, what is the \$/BP rate?

=> (a) $20 \times (1/0.8) = 25$

(b) Let's assume that $S_0 = \$1/SF$, then a 30% appreciation of SF (against \$)=> $S_1 = \$1.3/SF$. \$ appreciation rate against SF = $(S_0 - S_1)/S_1 = (1 - 1.3)/1.3 = -23\%$

(c) Since the European term is given, $S_1 = 1/133.59 = 0.0074856$. Yen appreciation rate against \$ = $(S_1 - S_0)/S_0 = (0.0074856 - S_0)/S_0 = -0.1806$ => $S_0 = 0.0074856/0.8194 = \$0.00914/\text{yen}$. Yen/\$ rate in Feb. 2000 = $1/0.00914 = 109.41$

(d) $\$/BP = (\$/\text{yen}) \times (\text{yen}/BP) = (1/108.2) \times 197.45 = 1.82486$

7. 1) How many dollars does it take to get 10 SFs if SF/\$=1.4?

2) If the price of a Twinkie goes up 25%, how much the dollar has lost its value?

=> 1) \$7.143

2) Let's say, the price of Twinkie increases from \$1/TW to \$1.25/TW. \$ appreciate rate against TW = $(1 - 1.25)/1.25 = > 20\%$ drop.

8. Using the information given in the table below, provide your answers.

1) What is the yen/US\$ exchange rate?

2) What would be the AU\$/Can \$ exchange rate?

Currency Last Trade	U.S. \$ N/A	Yen 11:29am ET	Euro 11:29am ET	Can \$ 11:29am ET	U.K. £ 11:29am ET	AU \$ 11:29am ET	Swiss Franc 11:29am ET
1 U.S. \$	1	116.3750	0.7844	1.1170	0.5262	1.3303	1.2382
1 Yen	0.008593	1	0.006740	0.009598	0.004521	0.011431	0.010640
1 Euro	1.2749	148.3607	1	1.4239	0.6708	1.6960	1.5785

=> 1) 116.375

2) AU\$/Can\$, use a cross rate = (AU\$/US\$)*(US\$/C\$) = 1.3303 * (1/1.1170)=1.191

9. Given the information in the following table.

What is the euro/C\$ cross rate of 9/13? If the C\$ has appreciated against US\$ 2% from 8/14 to 9/14, what is the US\$/C\$ rate a month ago?

PACIFIC Exchange Rate Service

	YYYY/MM/DD	Wdy	CAD/USD	EUR/USD
2453276	2008/09/13	Mon	1.2737	0.81252
2453277	2008/09/14	Tue	1.2755	0.81273

=> euro/C\$ = (euro/US\$) * (US\$/C\$) = 0.81252*(1/2.737) = .2969

US\$/C\$ of 9/14 = S1 = 1/1.2755 = 0.784

(0.784 – So)/So = 0.02 => So = 0.784/1.02 = 0.7686

10. Today's Exchange Rates Monday, Feb 09, 2009

Code	Country	Units/USD	USD/Unit	Units/CAD	CAD/Unit
ARP	Argentina (Peso)	0.9999	1.0001	0.6447	1.5510
AUD	Australia (Dollar)	1.9618	0.5097	1.2650	0.7905
ATS	Austria (Schilling)	14.7921	0.0676	9.5383	0.1048

1) What is the cross rate, ATS/ARP?

2) If AUD was expected to appreciate from 2/09/2009 to 2/09/2010 by 2% against US\$, what is the expected US\$/AUD of 2/09/2010?

=> 1) ATS/ARP = (ATS/\$)*(\$/APR) = 14.7921*1.0001 = 14.79358 (instead of 1.0001, you can use 1/0.9999)

2) (\$) price of AUD is 0.5097 on 2/09/2009 and it is expected to appreciate 2% => 0.5097*(1.02) = 0.519894 (Of course, you can use (S1-So)/So=0.02 with So=0.5097. However, this problem is a lot simpler than that.)

11. A MNC has the following cash flows from their operations around the world. What is the \$ amount of total cash flows from all the operations?

US operation: \$100m, Canadian operation: C\$150m, Japanese operation: 12 billion yen, UK operation: 70m pounds

USD/CAD 0.78401, USD/GBP 1.8102, USD/JPY 0.0089682

If all the FC values increase 10% against the US\$, what would be the new \$ amount?

=> 100m + 150m*0.78401 + 12,000m*0.0089682 + 70m*1.8102 = \$451,933,900

If all the FC values increase 10%, then the new exchange rates are 0.78401*1.1,