

**International Financial Management
C45.0030.001**

**Problem Set III
(Chapters 7 & 8)**

Due: Thursday, 10/16

Question I (also problem 7.7. in MSE)

Assume a call option on euros is written w/ a strike price of \$0.9400/EUR at a premium of \$0.0090/EUR and with an expiration date three months from now. The option is for EUR 100,000. Calculate the profit or loss should you exercise before maturity at a time when the euro is traded spot at:

- a. \$0.90/EUR
- b. \$0.94/EUR
- c. \$1.02/EUR

Question II (also problem 7.9. in MSE)

Suppose you believe that the Canadian dollar (C\$) will appreciate vs. the US\$ over the coming 90 days. The current spot is \$0.6750/C\$. You may choose between the following options on the Canadian dollar:

<i>Option</i>	<i>Strike Price</i>	<i>Premium</i>
Put on C\$	\$0.70/ C\$	\$0.0003/C\$
Call on C\$	\$0.70/ C\$	\$0.0247/C\$

- a. What option would you buy (call vs. put)?
- b. Using the choice in (a), what is the break-even price?
- c. Using the choice in (a), what are the gross and net profit (including the premium) if the spot rate at the end of the 90 days is \$0.76/C\$?
- d. Using the choice in (a), what are the gross and net profit (including the premium) if the spot rate at the end of the 90 days is \$0.825/C\$?

Question III (also problem 8.2. in MSE)

Plasti-Grip, Inc. of Georgia just purchased a Korean company that produces plastic nuts and bolts for automobile manufacture. The purchase price was for *Won 7,030,000,000*. *Won 1,000,000,000* has already been paid and the remaining *Won 6,030,000,000* is due in six months. The current spot rate is *Won 1,200/ \$*, the six-month forward rate is *Won 1,260/ \$*. Additional data:

Six-month Korean interest rate	16% annual
Six-month US interest rate	4% annual
Six-month call option on Korean won @ strike price of <i>Won 1,200/\$</i>	3 % premium
Six-month put option on Korean won @ strike price of <i>Won 1,200/\$</i>	2.4% premium

Plasti-grip can invest at the rates given above or borrow at 2% per annum above those rates. Plasti-grip weighted average cost of capital is 25%.

1. Set up a money market hedge for the above account payable.
2. Set up a forward market hedge for the above account payable.
3. Set up an option market hedge for the above account payable.
4. Compare the above hedges (in terms of costs). Which hedge would you recommend?

When you carry forward the cost of the option market hedge, please use as interest rate the WACC (weighted average cost of capital) for Plasti-grip of 25%.

(*Hints*: You can check out the solution to another exercise from chapters 7 & 8, namely <http://wps.aw.com/wps/media/objects/221/227125/solutions/Chap08.xls>)

Question IV.

Southcorp, one of the world's largest premium-branded Australian wine producers, oftentimes would use transaction exposure hedges. Check their website, in particular, <http://www.southcorp.com.au/presentations/FXexplanation0903.pdf>¹, and then answer the following questions:

1. Briefly, what is the purpose of hedging forex risk at Southcorp?
2. What type of hedge (money market, forward market, option market) does Southcorp use?
3. Is the company using proportional hedges? Briefly explain what is a proportional hedge.

¹ Please let me know if you cannot view the document ☺.