

**INTERNATIONAL FINANCE FIN 370**  
**HOMEWORK SET # V**  
**HEDGING TRANSACTION EXPOSURE**

A computer software development company in the U.S. exports its software to the euro zone. The company's European distributor asks and the company agrees to receive payments in euros (€). The distributor has just ordered a shipment that is priced in euros at today's dollar equivalent of \$14,830,000 for delivery and settlement in three months. The U.S.-based company is particularly worried about a high degree of uncertainty surrounding the euro exchange rate against the dollar. It decides to consider whether to hedge. Consulting with a NY bank, the company is advised that there are four different ways it can accomplish the hedge: Through a forward contract, a futures contract, an option contract, and through a money market hedge. The following information is available:

Spot	\$1.4830/€
3-month forward	\$1.4760/€
6-month forward	\$1.4580/€
3-month futures	\$1.4760/€
90-day call option #1	\$ 1.4840/€ strike; \$ 0.00800/€ premium
90-day put option #1	\$ 1.4840/€ strike; \$ 0.0100/€ premium
180-day call option #2	\$ 1.4890/€ strike; \$ 0.0120/€ premium
180-day put option #2	\$ 1.4890/€ strike; \$ 0.0180/€ premium
90-day dollar interest rate	6.00% per annum (deposit)      10.00% per annum (loan)
90-day euro interest rate	4.00% per annum (deposit)      8.00% per annum (loan)

- I. Specify which hedging instruments you would consider.
- II. Show how each of these hedging alternatives can be achieved.
- III. Assume the following probability distribution for the euro spot rate at the end of three months. Analyze the option versus the no-hedge alternatives and decide which alternative is probably the better one of the two and why.

<u>S<sub>1</sub></u>	<u>Probability</u>
\$1.4906/€	30%
\$1.4680/€	35%
\$1.4320/€	35%

- IV. Show how you compare all alternatives in terms of cost and risk and how to choose the best alternative.

**Remember to Think Critically:**

1. Although similar to the example we went over in class, this problem is not a replica of it. You need to do your own thinking and reach decision as to how it's different (**autonomy**).
2. If the problem is not a replica, then remember that it will not be solved in exactly the same way we did our illustration. The solution is not going to be straightforward in the sense of imitation. But do not give up too quickly. It will require patience and **perseverance**.

**Text in Red**

Indicates the infusion of the  
**Elements of Reasoning**

**Text in Blue**

Indicates the infusion of the  
**Intellectual Standards**

**Text in Green**

Indicates the infusion of the  
**Intellectual Traits**

*[Bracketed Text]*

Indicates the indirect use of  
critical thinking **[Elements]**,  
**[Standards]**, or **[Traits]**

[View more about the Paul-Elder  
Framework of Critical Thinking](#)

3. Once you reason through the problem (using the knowledge you attained in the discussion and plain common sense) have **confidence** in your own reasoning and be prepared to defend it (**courage**) and stand by it (**empathy**) even if you hear your classmate say you were wrong (**integrity**).