Text:

p. 35, second line from end: Change “the euro through the French franc.” to “the euro.”

p. 80, last line and p. 81, first line: Change “New Zealand dollar, and Irish punt,” to “and New Zealand dollar,”.

p. 94, Example 4.6, third line from: Change “premium” to “discount”.

p. 97, Mini Case, fourth paragraph: Change “franc” to “euro”.

p. 105, Equation (5.10): Change “i£ $” to “i$ $”.

p. 139, Exhibit 6.3: Delete “Jul 6” from horizontal shaded area.

p. 141, Exhibit 6.5: Add a marker (-) on vertical axis left of “LIBOR + X%”.

p. 141, tenth line from bottom: “$7.737 billion” should be “$7,737 billion”.

p. 204, Example 9.1, fourth line from bottom: Change “depreciate” to “appreciate”.

p. 204, Example 9.1, third line from bottom: Change “depreciating” to “appreciating”.

p. 205, Example 9.1, fourth line from bottom: Change “depreciating” to “appreciating”.

p. 207, Example 9.4, fourth line from top: “June 21” should be “June 18”.

p. 209, second line in second paragraph in Currency Option Markets: “trading is in seven major currencies and the euro: should be trading is in six major currencies:.


p. 217, Equation (9.6): Change “≤” to “≥”.

p. 218, two lines above Equation (9.8): Change “F_i” to “F_f”.

p. 220, d_1 and d_2 equations: Delete “/” in denominator of both equations.

p. 235, Example 10.5, fifth line from bottom: Change “$0.8333/€1.00” to “$1.20/€1.00.”

p. 236, Exhibit 10.7, Line 3: Change “0.833” to “1.20” for time periods 1, 2, 3, and 4.

p. 272, Problem 3, “French” should be replaced with “Swiss” in the text.

p. 276, equation (11A.1c): “-” sign should be “+” sign.
p. 333, Example 14.1, Line 11: “mark” should be “swiss franc”.

IM:

Chapter 4

p. 35, second to the last paragraph, €0.9727/$1.00 should be changed to $0.9727/€1.00.

Suggested solution to Shrewsbury Herbal Products, Ltd.:

Note to Instructor: This elementary case provides an intuitive look at hedging exchange rate exposure. Students should not have difficulty with it even though hedging will not be formally discussed until Chapter 13. The case is consistent with the discussion that accompanies Exhibit 4.5 of the text.

Suppose Shrewsbury sells at a twenty percent markup. Thus the cost to the firm of the £320,000 order is £256,000. Thus, the pound could appreciate to €500,512/£256,000 = €1.9551/1.00 before all profit was eliminated. This seems rather unlikely. Nevertheless, a ten percent appreciation of the pound (€1.5641 x 1.10) to €1.7205/£1.00 would only yield a profit of £34,911 (= €500,512/1.7205 - £256,000). Shrewsbury can hedge the exposure by selling the euros forward for British pounds at

\[ F_3(€/£) = \frac{F_3(€/$)}{F_3(€/£)} \]

\[ = \frac{1.5188}{0.9727} = 1.5614 \]

At this forward exchange rate, Shrewsbury can “lock-in” a price of £320,553 (= €500,512/1.5614) for the sale. The forward exchange rate indicates that the euro is trading at a premium to the British pound for forward purchase, thus the forward hedge allows Shrewsbury to lock-in a greater amount ($553) for the sale than if payment was made up front.

Chapter 5

Solution to Problem 1:

The market conditions are summarized as follows:

\[ I_\text{S} = 4\%; \ i_\text{e} = 3.5\%; S = €1.01/$; F = €0.99/$. \]

If $100,000,000 is invested in the U.S., the maturity value in six months will be

\[ $104,000,000 = $100,000,000 (1 + .04). \]

Alternatively, $100,000,000 can be converted into euros and invested at the German interest rate, with the euro maturity value sold forward. In this case the dollar maturity value will be

\[ $105,590,909 = ($100,000,000 x 1.01)(1 + .035)(1/0.99) \]

Clearly, it is better to invest $100,000,000 in Germany with exchange risk hedging.

Solution to Problem 4:

a. \( (1 + i_\text{S}) = 1.014 < (F/S)(1 + i_\text{e}) = 1.053. \) Thus, one has to borrow dollars and invest in euros to make arbitrage profit.

1. Borrow $1,000,000 and repay $1,014,000 in three months.
2. Sell $1,000,000 spot for €1,060,000.
3. Invest €1,060,000 at the euro interest rate of 1.35% for three months and receive €1,074,310 at maturity.
4. Sell €1,074,310 forward for $1,053,245.

Arbitrage profit = $1,053,245 - $1,014,000 = $39,245.

b. Follow the first three steps above. But the last step, involving exchange risk hedging, will be different.

5. Buy $1,014,000 forward for €1,034,280.

Arbitrage profit = €1,074,310 - €1,034,280 = €40,030

Chapter 11

Solution to Problem 2: Mr. Silber must have paid $2,584.27 (=4,600/1.78) for a share of Néstle a year ago. When the share was liquidated, he must have received $3,250 [= (5,080 + 120)/1.60]. Therefore, the rate of return in dollar terms is:

\[ R(\$) = [(3,250 - 2,584.27)/2584.27] \times 100 = 25.76\% . \]

Solution to Problem 3: The dollar profit from selling SF4,600 forward is equal to:

\[ \text{Profit (\$)} = 4,600 \times (1/1.62 - 1/1.60) \]
\[ = 4,600 \times (0.6173 - 0.625) \]
\[ = -35.42. \]

Thus, the total return of investment is:

\[ R(\$) = [(3,250 - 2,584.27 - 35.42)/2584.27] \times 100 = 24.39\%. \]

By ‘hindsight’, Mr. Silber should not have sold the SF amount forward as it reduced the return in dollar terms.

Solution to Problem 7:

Using the data in Exhibit 11.4, the covariance matrix is computed and is given below.

<table>
<thead>
<tr>
<th>Asset</th>
<th>Return</th>
<th>Std Dev</th>
<th>Weight</th>
<th>( R(p) )</th>
<th>1.489</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>0.880</td>
<td>5.780</td>
<td>-65.236%</td>
<td>Rf</td>
<td>0.500</td>
</tr>
<tr>
<td>France</td>
<td>1.190</td>
<td>6.290</td>
<td>7.023%</td>
<td>Var(p)</td>
<td>22.953</td>
</tr>
<tr>
<td>Germany</td>
<td>1.090</td>
<td>6.260</td>
<td>-2.111%</td>
<td>Std Dev(p)</td>
<td>4.791</td>
</tr>
<tr>
<td>Japan</td>
<td>0.910</td>
<td>6.990</td>
<td>-1.760%</td>
<td>Sharpe(p)</td>
<td>0.206</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.130</td>
<td>5.400</td>
<td>11.647%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.K.</td>
<td>1.230</td>
<td>5.550</td>
<td>27.872%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
<td>1.260</td>
<td>4.430</td>
<td>122.565%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Chapter 13

**Solution to Question 5:**

Answer: Your company in this case knows in advance that it will receive a certain minimum dollar amount no matter what might happen to the $/€ exchange rate. Furthermore, if the euro appreciates, your company will benefit from the rising euro.

**Solution to Problem 1:**

(a) Expected gain($) = \(10,000,000(1.10 - 1.05)\)

= \(10,000,000(.05)\)

= $500,000.

(b) I would recommend hedging because Cray Research can increase the expected dollar receipt by $500,000 and also eliminate the exchange risk.

(c) Since I eliminate risk without sacrificing dollar receipt, I still would recommend hedging.