Answers to Self Test Questions for Chapter 1

1. MNCs can capitalize on comparative advantages (such as a technology or cost of labor) that they have relative to firms in other countries, which allows them to penetrate those other countries’ markets. Given a world of imperfect markets, comparative advantages across countries are not freely transferable. Therefore, MNCs may be able to capitalize on comparative advantages. Many MNCs initially penetrate markets by exporting but ultimately establish a subsidiary in foreign markets and attempt to differentiate their products as other firms enter those markets (product cycle theory).

2. In the late 1980s and 1990s, Western European countries removed many barriers, which allowed more potential for efficient expansion throughout Europe. Consequently, U.S. firms may be able to expand across European countries at a lower cost than before.

During the same period, Eastern European countries opened their markets to foreign firms and privatized many of the state-owned firms. This allowed U.S. firms to penetrate these countries to offer products that previously had been unavailable.

3. First, there is the risk of poor economic conditions in the foreign country. Second, there is country risk, which reflects the risk of changing government or public attitudes toward the MNC. Third, there is exchange rate risk, which can affect the performance of the MNC in the foreign country.

Answers to Self Test Questions for Chapter 2

1. Each of the economic factors is described, holding other factors constant.

   a. Inflation. A relatively high U.S. inflation rate relative to other countries can make U.S. goods less attractive to U.S. and non-U.S. consumers, which results in fewer U.S. exports, more U.S. imports, and a lower (or more negative) current account balance. A relatively low U.S. inflation rate would have the opposite effect.

   b. National income. A relatively high increase in the U.S. national income (compared to other countries) tends to cause a large increase in demand for imports and can cause a lower (or more negative) current account balance. A relatively low increase in the U.S. national income would have the opposite effect.
c. Exchange rates. A weaker dollar tends to make U.S. products cheaper to non-U.S. firms and makes non-U.S. products expensive to U.S. firms. Thus, U.S. exports are expected to increase, while U.S. imports are expected to decrease. However, some conditions can prevent these effects from occurring, as explained in the chapter. Normally, a stronger dollar causes U.S. exports to decrease and U.S. imports to increase because it makes U.S. goods more expensive to non-U.S. firms and makes non-U.S. goods less expensive to U.S. firms.

d. Government restrictions. When the U.S. government imposes new barriers on imports, U.S. imports decline, causing the U.S. balance of trade to increase (or be less negative). When non-U.S. governments impose new barriers on imports from the United States, the U.S. balance of trade may decrease (or be more negative). When governments remove trade barriers, the opposite effects are expected.

2. When the United States imposes tariffs on imported goods, foreign countries may retaliate by imposing tariffs on goods exported by the United States. Thus, there is a decline in U.S. exports that may offset any decline in U.S. imports.

3. The Asian crisis caused a decline in Asian income levels and therefore resulted in a reduced demand for U.S. exports. In addition, Asian exporters experienced problems, and some U.S. importers discontinued their relationships with the Asian exporters.

Answers to Self Test Questions for Chapter 3

1. West Dakota may engage in the investing strategy if market interest rates are higher in Canada and if it expects that the Canadian dollar will appreciate against the U.S. dollar. Either condition may allow the investment in Canada to earn a higher return than an investment in the United States.

2. The peso-denominated loan offers a higher interest rate. However, if the peso depreciates by the time of the loan repayment, Houston Bank would have to convert the pesos into dollars at a weaker exchange rate. Thus, Houston Bank might receive a smaller repayment in dollars than Pan American Bank even though the interest rate on its loan was higher than the interest rate charged by Pan American Bank. While, Houston Bank has the potential to earn a higher return, there is some uncertainty (risk) about its return because of the uncertainty surrounding exchange rates.

3. MNCs use the spot foreign exchange market to exchange currencies for immediate delivery. They use the forward foreign exchange market and the currency futures market to lock in the exchange rate at which currencies will be exchanged at a future point in time. They use the currency options market when they wish to lock in the maximum (minimum) amount to be paid (received) in a future currency transaction but maintain flexibility in the event of favorable exchange rate movements.

MNCs use the Eurocurrency market to engage in short-term investing or financing or the Eurocredit market to engage in medium-term financing. They can obtain long-term financing by issuing bonds in the Eurobond market or by issuing stock in the international markets.
Answers to Self Test Questions for Chapter 4

1. Economic factors affect the yen’s value as follows:
   a. If U.S. inflation is higher than Japanese inflation, the U.S. demand for Japanese goods may increase (to avoid the higher U.S. prices), and the Japanese demand for U.S. goods may decrease (to avoid the higher U.S. prices). Consequently, there is upward pressure on the value of the yen.
   b. If U.S. interest rates increase and exceed Japanese interest rates, the U.S. demand for Japanese interest-bearing securities may decline (since U.S. interest-bearing securities are more attractive), while the Japanese demand for U.S. interest-bearing securities may rise. Both forces place downward pressure on the yen’s value.
   c. If U.S. national income increases more than Japanese national income, the U.S. demand for Japanese goods may increase more than the Japanese demand for U.S. goods. Assuming that the change in national income levels does not affect exchange rates indirectly through effects on relative interest rates, the forces should place upward pressure on the yen’s value.
   d. If government controls reduce the U.S. demand for Japanese goods, they place downward pressure on the yen’s value. If the controls reduce the Japanese demand for U.S. goods, they place upward pressure on the yen’s value.

   The opposite scenarios of those described here would cause the expected pressure to be in the opposite direction.

2. U.S. capital flows with Country A may be larger than U.S. capital flows with Country B. Therefore, the change in the interest rate differential has a larger effect on the capital flows with Country A, causing the exchange rate to change. If the capital flows with Country B are nonexistent, interest rate changes do not change the capital flows and therefore do not change the demand and supply conditions in the foreign exchange market.

3. Smart Banking Corp. should not pursue the strategy because a loss would result, as shown here.
   a. Borrow $5 million.
   b. Convert $5 million to C$5,263,158 (based on the spot exchange rate of $.95 per C$).
   c. Invest the C$ at 9 percent annualized, which represents a return of .15 percent over six days, so the C$ received after six days = C$5,271,053 (computed as C$5,263,158 \times [1 + .0015]).
   d. Convert the C$ received back to U.S. dollars after six days: C$5,271,053 = $4,954,789 (based on anticipated exchange rate of $.94 per C$ after six days).
   e. The interest rate owed on the U.S. dollar loan is .10 percent over the six-day period. Thus, the amount owed as a result of the loan is $5,005,000 (computed as $5,000,000 \times [1 + .001])
   f. The strategy is expected to cause a gain of ($4,954,789 - $5,005,000) = –$50,211.
Answers to Self Test Questions for Chapter 5

1. The net profit to the speculator is \(-\$0.01\) per unit.
   The net profit to the speculator for one contract is \(-\$500\) (computed as \(-\$0.01 \times 50,000\) units).
   The spot rate would need to be \$.66\) for the speculator to break even.
   The net profit to the seller of the call option is \$.01\) per unit.

2. The speculator should exercise the option.
   The net profit to the speculator is \$.04\) per unit.
   The net profit to the seller of the put option is \(-\$.04\) per unit.

3. The premium paid is higher for options with longer expiration dates (other things being equal). Firms may prefer not to pay such high premiums.

Answers to Self Test Questions for Chapter 6

1. Market forces cause the demand and supply of yen in the foreign exchange market to change, which causes a change in the equilibrium exchange rate. The central banks could intervene to affect the demand or supply conditions in the foreign exchange market, but they would not always be able to offset the changing market forces. For example, if there were a large increase in the U.S. demand for yen and no increase in the supply of yen for sale, the central banks would have to increase the supply of yen in the foreign exchange market to offset the increased demand.

2. The Fed could use direct intervention by selling some of its dollar reserves in exchange for pesos in the foreign exchange market. It could also use indirect intervention by attempting to reduce U.S. interest rates through monetary policy. Specifically, it could increase the U.S. money supply, which places downward pressure on U.S. interest rates (assuming that inflationary expectations do not change). The lower U.S. interest rates should discourage foreign investment in the United States and encourage increased investment by U.S. investors in foreign securities. Both forces tend to weaken the dollar’s value.

3. A weaker dollar tends to increase the demand for U.S. goods because the price paid for a specified amount in dollars by non-U.S. firms is reduced. In addition, the U.S. demand for foreign goods is reduced because it takes more dollars to obtain a specified amount in foreign currency once the dollar weakens. Both forces tend to stimulate the U.S. economy and therefore improve productivity and reduce unemployment in the United States.

Answers to Self Test Questions for Chapter 7

1. No. The cross exchange rate between the pound and the C$ is appropriate, based on the other exchange rates. There is no discrepancy to capitalize on.

2. No. Covered interest arbitrage involves the exchange of dollars for pounds. Assuming that the investors begin with \$1 million\) (the starting amount will not affect the final conclusion), the dollars would be converted to pounds as shown here:

\[
\$1 \text{ million} / \$1.60 \text{ per } \text{£} = \text{£625,000}
\]
The British investment would accumulate interest over the 180-day period, resulting in

\[ £625,000 \times 1.04 = £650,000 \]

After 180 days, the pounds would be converted to dollars:

\[ £650,000 \times \$1.56 \text{ per pound} = \$1,014,000 \]

This amount reflects a return of 1.4 percent above the amount U.S. investors initially started with. The investors could simply invest the funds in the United States at 3 percent. Thus, U.S. investors would earn less using the covered interest arbitrage strategy than investing in the United States.

3. No. The forward rate discount on the pound does not perfectly offset the interest rate differential. In fact, the discount is 2.5 percent, which is larger than the interest rate differential. U.S. investors do worse when attempting covered interest arbitrage than when investing their funds in the United States because the interest rate advantage on the British investment is more than offset by the forward discount.

Further clarification may be helpful here. While the U.S. investors could not benefit from covered interest arbitrage, British investors could capitalize on covered interest arbitrage. While British investors would earn 1 percent interest less on the U.S. investment, they would be purchasing pounds forward at a discount of 2.5 percent at the end of the investment period. When interest rate parity does not exist, investors from only one of the two countries of concern could benefit from using covered interest arbitrage.

4. If there is a discrepancy in the pricing of a currency, one may capitalize on it by using the various forms of arbitrage described in the chapter. As arbitrage occurs, the exchange rates will be pushed toward their appropriate levels because arbitrageurs will buy an underpriced currency in the foreign exchange market (increase in demand for currency places upward pressure on its value) and will sell an overpriced currency in the foreign exchange market (increase in the supply of currency for sale places downward pressure on its value).

5. The one-year forward discount on pounds would become more pronounced (by about one percentage point more than before) because the spread between the British interest rates and U.S. interest rates would increase.

Answers to Self Test Questions for Chapter 8

1. If the Japanese prices rise because of Japanese inflation, the value of the yen should decline. Thus, even though the importer might need to pay more yen, it would benefit from a weaker yen value (it would pay fewer dollars for a given amount in yen). Thus, there could be an offsetting effect if PPP holds.

2. Purchasing power parity does not necessarily hold. In our example, Japanese inflation could rise (causing the importer to pay more yen), and yet the Japanese yen would not necessarily depreciate by an offsetting amount, or at all. Therefore, the dollar amount to be paid for Japanese supplies could increase over time.

3. High inflation will cause a balance of trade adjustment, whereby the United States will reduce its purchases of goods in these countries, while the demand for U.S.
goods by these countries should increase (according to PPP). Consequently, there will be downward pressure on the values of these currencies.

4. 
\[ e_t = I_h - I_f = 3\% - 4\% = -.01 \text{ or } -1\% \]
\[ S_{t+1} = S(1 + e_t) = $.85[1 + (-.01)] = $.8415 \]

5. 
\[ e_f = \frac{(1 + i_h)}{(1 + i_f)} - 1 = \frac{(1 + .06)}{(1 + .11)} - 1 = -.045, \text{ or } -4.5\% \]
\[ S_{t+1} = S(1 + e_f) = $.90[1 + (-.045)] = $.8595 \]

6. According to the IFE, the increase in interest rates by 5 percentage points reflects an increase in expected inflation by 5 percentage points.

If the inflation adjustment occurs, the balance of trade should be affected, as Australian demand for U.S. goods rises while the U.S. demand for Australian goods declines. Thus, the Australian dollar should weaken.

If U.S. investors believed in the IFE, they would not attempt to capitalize on higher Australian interest rates because they would expect the Australian dollar to depreciate over time.

### Answers to Self Test Questions for Chapter 9

1. U.S. four-year interest rate = \((1 + .07)^4 = 131.08\% \) or 1.3108. Mexican four-year interest rate = \((1 + .20)^4 = 207.36\% \) or 2.0736.

\[ p = \frac{(1 + i_h)}{(1 + i_f)} - 1 = \frac{1.3108}{2.0736} - 1 = -.3679 \text{ or } -36.79\% . \]

2. Canadian dollar \( \frac{.80 - .82}{.82} = 2.44\% \)

Japanese yen \( \frac{.012 - .011}{.011} = 9.09\% \)

The forecast error was larger for the Japanese yen.

3. The forward rate of the peso would have overestimated the future spot rate because the spot rate would have declined by the end of each month.

4. Semistrong-form efficiency would be refuted since the currency values do not adjust immediately to useful public information.

5. The peso would be expected to depreciate because the forward rate of the peso would exhibit a discount (be less than the spot rate). Thus, the forecast derived from the forward rate is less than the spot rate, which implies anticipated depreciation of the peso.
6. As the chapter suggests, forecasts of currencies are subject to a high degree of error. Thus, if a project’s success is very sensitive to the future value of the bolivar, there is much uncertainty. This project could easily backfire because the future value of the bolivar is very uncertain.

Answers to Self Test Questions for Chapter 10

1. Managers have more information about the firm’s exposure to exchange rate risk than do shareholders and may be able to hedge it more easily than shareholders could. Shareholders may prefer that the managers hedge for them. Also, cash flows may be stabilized as a result of hedging, which can reduce the firm’s cost of financing.

2. The Canadian supplies would have less exposure to exchange rate risk because the Canadian dollar is less volatile than the Mexican peso.

3. The Mexican source would be preferable because the firm could use peso inflows to make payments for material that is imported.

4. No. If exports are priced in dollars, the dollar cash flows received from exporting will depend on Mexico’s demand, which will be influenced by the peso’s value. If the peso depreciates, Mexican demand for the exports would likely decrease.

5. The earnings generated by the European subsidiaries will be translated to a smaller amount in dollar earnings if the dollar strengthens. Thus, the consolidated earnings of the U.S.-based MNCs will be reduced.

Answers to Self Test Questions for Chapter 11

1. Amount of A$ to be invested today = A$3,000,000/(1 + .12) = A$2,678,571

Amount of U.S. $ to be borrowed to convert to A$ = A$2,678,571 × $.85 = $2,276,785

Amount of U.S. $ needed in one year to pay off loan = $2,276,785 × (1 + .07) = $2,436,160

2. The forward hedge would be more appropriate. Given a forward rate of $.81, Montclair would need $2,430,000 in one year (computed as A$3,000,000 × $.81) when using a forward hedge.

3. Montclair could purchase currency call options in Australian dollars. The option could hedge against the possible appreciation of the Australian dollar. Yet, if the Australian dollar depreciates, Montclair could let the option expire and purchase the Australian dollars at the spot rate at the time it needs to send payment. A disadvantage of the currency call option is that a premium must be paid for it. Thus, if Montclair expects the Australian dollar to appreciate over the year, the money market hedge would probably be a better choice, since the flexibility provided by the option would not be useful in this case.

4. Even though Sanibel Co. is insulated from the beginning of a month to the end of the month, the forward rate will become higher each month because the forward rate moves with the spot rate. Thus, the firm will pay more dollars each month, even
though it is hedged during the month. Sanibel will be adversely affected by the consistent appreciation of the pound.

5. Sanibel Co. could engage in a series of forward contracts today to cover the payments in each successive month. In this way, it locks in the future payments today and does not have to agree to the higher forward rates that may exist in future months.

6. A put option on SF2,000,000 would cost $60,000. If the spot rate of the SF reached $.68 as expected, the put option would be exercised, which would yield $1,380,000 (computed as SF2,000,000 × $.69). Accounting for the premium costs of $60,000, the receivables amount would convert to $1,320,000. If Hopkins remains unhedged, it expects to receive $1,360,000 (computed as SF2,000,000 × $.68). Thus, the unhedged strategy is preferable.

Answers to Self Test Questions for Chapter 12

1. Salem could attempt to purchase its chemicals from Canadian sources. Then, if the C$ depreciates, the reduction in dollar inflows resulting from its exports to Canada will be partially offset by a reduction in dollar outflows needed to pay for the Canadian imports.

   An alternative possibility for Salem is to finance its business with Canadian dollars, but this would probably be a less efficient solution.

2. A possible disadvantage is that Salem would forgo some of the benefits if the C$ appreciated over time.

3. The consolidated earnings of Coastal Corp. will be adversely affected if the pound depreciates because the British earnings will be translated into dollar earnings for the consolidated income statement at a lower exchange rate. Coastal could attempt to hedge its translation exposure by selling pounds forward. If the pound depreciates, it will benefit from its forward position, which could help offset the translation effect.

4. This argument has no perfect solution. It appears that shareholders penalize the firm for poor earnings even when the reason for poor earnings is a weak euro that has adverse translation effects. It is possible that translation effects could be hedged to stabilize earnings, but Arlington may consider informing the shareholders that the major earnings changes have been due to translation effects and not to changes in consumer demand or other factors. Perhaps shareholders would not respond so strongly to earnings changes if they were well aware that the changes were primarily caused by translation effects.

5. Lincolnshire has no translation exposure since it has no foreign subsidiaries. Kalafa has translation exposure resulting from its subsidiary in Spain.

Answers to Self Test Questions for Chapter 13

1. Possible reasons may include
   - More demand for the product (depending on the product)
   - Better technology in Canada
   - Fewer restrictions (less political interference)
2. Possible reasons may include
- More demand for the product (depending on the product)
- Greater probability of earning superior profits (since many goods have not been marketed in Mexico in the past)
- Cheaper factors of production (such as land and labor)
- Possible exploitation of monopolistic advantages

3. U.S. firms prefer to enter a country when the foreign country’s currency is weak. U.S. firms normally would prefer that the foreign currency appreciate after they invest their dollars to develop the subsidiary. The executive’s comment suggests that the euro is too strong, so any U.S. investment of dollars into Europe will not convert into enough euros to make the investment worthwhile.

4. It may be easier to engage in a joint venture with a Chinese firm, which is already well established in China, to circumvent barriers.

5. The government may attempt to stimulate the economy in this way.

Answers to Self Test Questions for Chapter 14

1. In addition to earnings generated in Jamaica, the NPV is based on some factors not controlled by the firm, such as the expected host government tax on profits, the withholding tax imposed by the host government, and the salvage value to be received when the project is terminated. Furthermore, the exchange rate projections will affect the estimates of dollar cash flows received by the parent as earnings are remitted.

2. The most obvious effect is on the cash flows that will be generated by the sales distribution center in Ireland. These cash flow estimates will likely be revised downward (due to lower sales estimates). It is also possible that the estimated salvage value could be reduced. Exchange rate estimates could be revised as a result of revised economic conditions. Estimated tax rates imposed on the center by the Irish government could also be affected by the revised economic conditions.

3. New Orleans Exporting Co. must account for the cash flows that will be forgone as a result of the plant, because some of the cash flows that used to be received by the parent through its exporting operation will be eliminated. The NPV estimate will be reduced after this factor is accounted for.

4. a. An increase in the risk will cause an increase in the required rate of return on the subsidiary, which results in a lower discounted value of the subsidiary’s salvage value.
   b. If the rupiah depreciates over time, the subsidiary’s salvage value will be reduced because the proceeds will convert to fewer dollars.

5. The dollar cash flows of Wilmette Co. would be affected more because the periodic remitted earnings from Thailand to be converted to dollars would be larger. The dollar cash flows of Niles would not be affected so much because interest payments would be made on the Thai loans before earnings could be remitted to the United States. Thus, a smaller amount in earnings would be remitted.

6. The demand for the product in the foreign country may be very uncertain, causing the total revenue to be uncertain. The exchange rates can be very uncertain, creating uncertainty about the dollar cash flows received by the U.S. parent. The salvage value may be very uncertain; this will have a larger effect if the lifetime of the proj-
ect is short (for projects with a very long life, the discounted value of the salvage value is small anyway).

Answers to Self Test Questions for Chapter 15

1. Acquisitions have increased in Europe to capitalize on the inception of the euro, which created a single European currency for many European countries. This has not only eliminated the exchange rate risk on transactions between the participating European countries, but it has also made it easier to compare valuations among European countries to determine where targets are undervalued.

2. Common restrictions include government regulations, such as antitrust restrictions, environmental restrictions, and red tape.

3. The establishment of a new subsidiary allows an MNC to create the subsidiary it desires without assuming existing facilities or employees. However, the process of building a new subsidiary and hiring employees will normally take longer than the process of acquiring an existing foreign firm.

4. The divestiture is now more feasible because the dollar cash flows to be received by the U.S. parent are reduced as a result of the revised projections of the krona’s value.

Answers to Self Test Questions for Chapter 16

1. First, consumers on the islands could develop a philosophy of purchasing homemade goods. Second, they could discontinue their purchases of exports by Key West Co. as a form of protest against specific U.S. government actions. Third, the host governments could impose severe restrictions on the subsidiary shops owned by Key West Co. (including the blockage of funds to be remitted to the U.S. parent).

2. First, the islands could experience poor economic conditions, which would cause lower income for some residents. Second, residents could be subject to higher inflation or higher interest rates, which would reduce the income that they could allocate toward exports. Depreciation of the local currencies could also raise the local prices to be paid for goods exported from the United States. All factors described here could reduce the demand for goods exported by Key West Co.

3. Financial risk is probably a bigger concern. The political risk factors are unlikely, based on the product produced by Key West Co. and the absence of substitute products available in other countries. The financial risk factors deserve serious consideration.

4. This event has heightened the perceived country risk for any firms that have offices in populated areas (especially next to government or military offices). It has also heightened the risk for firms whose employees commonly travel to other countries and for firms that provide office services or travel services.

5. Rockford Co. could estimate the net present value (NPV) of the project under three scenarios: (1) include a special tax when estimating cash flows back to the parent (probability of scenario = 15%), (2) assume the project ends in two years and include a salvage value when estimating the NPV (probability of scenario = 15%), and (3) assume no Canadian government intervention (probability = 70%). This results
in three estimates of NPV, one for each scenario. This method is less arbitrary than the one considered by Rockford’s executives.

Answers to Self Test Questions for Chapter 17

1. Growth may have caused Goshen to require a large amount for financing that could not be completely provided by retained earnings. In addition, the interest rates may have been low in these foreign countries to make debt financing an attractive alternative. Finally, the use of foreign debt can reduce the exchange rate risk since the amount in periodic remitted earnings is reduced when interest payments are required on foreign debt.

2. If country risk has increased, Lynde can attempt to reduce its exposure to that risk by removing its equity investment from the subsidiary. When the subsidiary is financed with local funds, the local creditors have more to lose than the parent if the host government imposes any severe restrictions on the subsidiary.

3. Not necessarily. German and Japanese firms tend to have more support from other firms or from the government if they experience cash flow problems and can therefore afford to use a higher degree of financial leverage than firms from the same industry in the United States.

4. Local debt financing is favorable because it can reduce the MNC’s exposure to country risk and exchange rate risk. However, the high interest rates will make the local debt very expensive. If the parent makes an equity investment in the subsidiary to avoid the high cost of local debt, it will be more exposed to country risk and exchange rate risk.

5. The answer to this question is dependent on whether you believe unsystematic risk is relevant. If the CAPM is used as a framework for measuring the risk of a project, the risk of the foreign project is determined to be low, because the systematic risk is low. That is, the risk is specific to the host country and is not related to U.S. market conditions. However, if the project’s unsystematic risk is relevant, the project is considered to have a high degree of risk. The project’s cash flows are very uncertain, even though the systematic risk is low.

Answers to Self Test Questions for Chapter 18

1. A firm may be able to obtain a lower coupon rate by issuing bonds denominated in a different currency. The firm converts the proceeds from issuing the bond to its local currency to finance local operations. Yet, there is exchange rate risk because the firm will need to make coupon payments and the principal payment in the currency denominated the bond. If that currency appreciates against the firm’s local currency, the financing costs could become larger than expected.

2. The risk is that the Swiss franc would appreciate against the pound over time since the British subsidiary will periodically convert some of its pound cash flows to francs to make the coupon payments.

The risk here is less than it would be if the proceeds were used to finance U.S. operations. The Swiss franc’s movement against the dollar is much more volatile than the Swiss franc’s movement against the pound. The Swiss franc and the pound
have historically moved in tandem to some degree against the dollar, which means that there is a somewhat stable exchange rate between the two currencies.

3. If these firms borrow U.S. dollars and convert them to finance local projects, they will need to use their own currencies to obtain dollars and make coupon payments. These firms would be highly exposed to exchange rate risk.

4. Paxson Co. is exposed to exchange rate risk. If the yen appreciates, the number of dollars needed for conversion into yen will increase. To the extent that the yen strengthens, Paxson's cost of financing when financing with yen could be higher than when financing with dollars.

5. The nominal interest rate incorporates expected inflation (according to the so-called Fisher effect). Therefore, the high interest rates reflect high expected inflation. Cash flows can be enhanced by inflation because a given profit margin converts into larger profits as a result of inflation, even if costs increase at the same rate as revenues.

Answers to Self Test Questions for Chapter 19

1. The exporter may not trust the importer or may be concerned that the government will impose exchange controls that prevent payment to the exporter. Meanwhile, the importer may not trust that the exporter will ship the goods ordered and therefore may not pay until the goods are received. Commercial banks can help by providing guarantees to the exporter in case the importer does not pay.

2. In accounts receivable financing, the bank provides a loan to the exporter secured by the accounts receivable. If the importer fails to pay the exporter, the exporter is still responsible to repay the bank. Factoring involves the sales of accounts receivable by the exporter to a so-called factor, so that the exporter is no longer responsible for the importer's payment.

3. The guarantee programs of the Export-Import Bank provide medium-term protection against the risk of nonpayment by the foreign buyer due to political risk.

Answers to Self Test Questions for Chapter 20

1. \[ r_f = (1 + i_f)(1 + e_f) - 1 \]
   If \( e_f = -6\% \), \( r_f = (1 + .09)[1 + (-0.06)] - 1 \)
   \[ = .0246, \text{ or } 2.46\% \]
   If \( e_f = 3\% \), \( r_f = (1 + .09)(1 + .03) - 1 \)
   \[ = .1227, \text{ or } 12.27\% \]

2. \[ E(r_f) = 50\%(2.46\%) + 50\%(12.27\%) \]
   \[ = 1.23\% + 6.135\% \]
   \[ = 7.365\% \]

3. \[ e_f = \frac{(1 + r_f)}{(1 + i)} - 1 \]
   \[ = \frac{(1 + .08)}{(1 + .05)} - 1 \]
   \[ = .0286, \text{ or } 2.86\% \]
4. \( E(\epsilon) = (\text{Forward rate} - \text{Spot rate})/\text{Spot rate} \)
   \[ = (\$0.60 - \$0.62)/\$0.62 \]
   \[ = -0.0322, \text{ or } 3.22\% \]

   \( E(r_f) = (1 + i_f)[1 + E(\epsilon_f)] - 1 \)
   \[ = (1 + 0.09)[1 + (-0.0322)] - 1 \]
   \[ = 0.0548, \text{ or } 5.48\% \]

5. The two-currency portfolio will not exhibit much lower variance than either individual currency because the currencies tend to move together. Thus, the diversification effect is limited.

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**Answers to Self Test Questions for Chapter 21**

1. The subsidiary in Country Y should be more adversely affected because the blocked funds will not earn as much interest over time. In addition, the funds will likely be converted to dollars at an unfavorable exchange rate because the currency is expected to weaken over time.

2. \( E(r) = (1 + i_f)[1 + E(\epsilon_f)] - 1 \)
   \[ = (1 + 0.14)(1 + 0.08) - 1 \]
   \[ = 0.2312, \text{ or } 23.12\% \]

3. \( E(\epsilon_f) = (\text{Forward rate} - \text{Spot rate})/\text{Spot rate} \)
   \[ = (\$0.19 - \$0.20)/\$0.20 \]
   \[ = -0.05, \text{ or } -5\% \]

   \( E(r_f) = (1 + i_f)[1 + E(\epsilon_f)] - 1 \)
   \[ = (1 + 0.11)(1 + (-0.05)) - 1 \]
   \[ = 0.0545, \text{ or } 5.45\% \]

4. \( \epsilon_f = \frac{(1 + r_f)}{(1 + i_f)} - 1 \)
   \[ = \frac{(1 + 0.06)}{(1 + 0.09)} - 1 \]
   \[ = -0.04421, \text{ or } -4.421\% \]

   If the bolivar depreciates by less than 44.21 percent against the dollar over the one-year period, a one-year deposit in Venezuela will generate a higher effective yield than a one-year U.S. deposit.

5. Yes. Interest rate parity would discourage U.S. firms only from covering their investments in foreign deposits by using forward contracts. As long as the firms believe that the currency will not depreciate to offset the interest rate advantage, they may consider investing in countries with high interest rates.