## **CHAPTER 16**

## **CONCEPT REVIEW QUESTIONS**

1. Distinguish between transactions, translation, and economic exposure.

Transaction exposure is the risk associated with potential changes in prices that affect the value of specific transactions, while economic exposure is the risk associated with potential changes in prices that affect all of a firm's cash flows.

2. Describe how a domestic firm might use a forward contract to hedge an economic exposure. Why does uncertainty about the magnitude of the exposure make this difficult?

A domestic firm may hedge against exchange rate variations by using a forward contract. This type of strategy has the advantage of requiring no upfront investment. However, uncertainties about the magnitude of the exposure may lead to inappropriate contracts, so that residual exposure remains.

3. Consider a U.S. firm that has for many years exported to European countries. How does the creation of the euro simplify or complicate the management of transactions exposure for this firm?

On the one hand, the creation of the euro may complicate the management of transactions exposure for this firm as it cannot hedge within the EU. But on the other hand, the euro is a much more stable currency than the former individual country currencies, which overall makes the Euro area a safe destination for international investment.

4. Some legislators have described the markets for derivative securities as an electronic pyramid scheme. How do you respond?

Derivative securities can be very risky, and they can be used for speculative purposes. However, derivatives can also be used to hedge various risk exposures, and in that sense they are more like insurance than a pyramid scheme.

5. Contrast hedging and speculation.

The objective of hedging is primarily to minimize risk and the likelihood of financial distress, whereas the objective speculation is to accept a higher risk in the objective of maximizing financial wealth.

6. If Equation 16.2 does not hold, how might an arbitrageur earn a riskless profit?

If equation 16.2 does not hold, then the forward price, F, is either higher or lower than the right-hand side. If F is higher, then the forward price is "too high" in some sense, so a trader could buy the asset in the spot market and sell it in the forward market to earn a profit. If F is "too low," then a trader would take a short position in the spot market and cover that exposure with a long position in the forward market.

7. What is the difference in the timing of cash flows in a forward contract and a spot market transaction?

With a spot market transaction, the buyer pays cash immediately and receives the underlying asset. With a forward transaction, no cash changes hands immediately. At some point in the future, the buyer pays cash to the seller and takes delivery of the underlying asset.

8. What is the difference in the cash flows for a forward contract and a futures contract?

With a futures contract, a trader must post some initial margin. As the futures price changes each day, the trader's position is marked to market, meaning that money flow into the margin account when the trader's position increases in value, and money flows out if the position decreases in value. With a forward contract, cash only changes hands at the end of the contract.

9. What features of a futures contract tend to reduce default risk?

Margin requirements and daily marking to market reduce the probability of default in a futures contract.

10. Describe how an interest rate swap is just a portfolio of FRAs.

An interest rate swap is just a sequence of payments through time where the payments depend on the difference between a fixed and a floating interest rate. A single forward rate agreement is one payment that is based on the difference between two interest rates, so a sequence of forward rate agreements spread over time is similar to a swap.

11. Why would any corporation hedge with forwards, futures, or swaps if it can keep its upside potential by hedging with options?

Hedging with options does preserve some upside potential, but it is expensive because the firm has to purchase the options by paying the option premium. With futures, forwards, and swaps, no cash is required up front (except for margin requirements with futures).