

Chapter 13

Financial Derivatives

■ Multiple Choice

- 1) The payoffs for financial derivatives are linked to
- (a) securities that will be issued in the future.
 - (b) the volatility of interest rates.
 - (c) previously issued securities.
 - (d) government regulations specifying allowable rates of return.
 - (e) none of the above.

Answer: C

Question Status: New

- 2) Financial derivatives include
- (a) stocks.
 - (b) bonds.
 - (c) futures.
 - (d) none of the above.

Answer: C

Question Status: Previous Edition

- 3) Financial derivatives include
- (a) stocks.
 - (b) bonds.
 - (c) forward contracts.
 - (d) both (a) and (b) are true.

Answer: C

Question Status: Previous Edition

- 4) Which of the following is not a financial derivative?
- (a) Stock
 - (b) Futures
 - (c) Options
 - (d) Forward contracts

Answer: A

Question Status: Previous Edition

- 5) By hedging a portfolio, a bank manager
- (a) reduces interest rate risk.
 - (b) increases reinvestment risk.
 - (c) increases exchange rate risk.
 - (d) increases the probability of gains.

Answer: A

Question Status: Previous Edition

- 6) Which of the following is a reason to hedge a portfolio?
- (a) To increase the probability of gains.
 - (b) To limit exposure to risk.
 - (c) To profit from capital gains when interest rates fall.
 - (d) All of the above.
 - (e) Both (a) and (c) of the above.

Answer: B

Question Status: Revised

- 7) Hedging risk for a long position is accomplished by
- (a) taking another long position.
 - (b) taking a short position.
 - (c) taking additional long and short positions in equal amounts.
 - (d) taking a neutral position.
 - (e) none of the above.

Answer: B

Question Status: New

- 8) Hedging risk for a short position is accomplished by
- (a) taking a long position.
 - (b) taking another short position.
 - (c) taking additional long and short positions in equal amounts.
 - (d) taking a neutral position.
 - (e) none of the above.

Answer: A

Question Status: New

- 9) A contract that requires the investor to buy securities on a future date is called a
- (a) short contract.
 - (b) long contract.
 - (c) hedge.
 - (d) cross.

Answer: B

Question Status: Previous Edition

- 10) A long contract requires that the investor
- (a) sell securities in the future.
 - (b) buy securities in the future.
 - (c) hedge in the future.
 - (d) close out his position in the future.

Answer: B

Question Status: Previous Edition

- 11) A person who agrees to buy an asset at a future date has gone
- (a) long.
 - (b) short.
 - (c) back.
 - (d) ahead.
 - (e) even.

Answer: A

Question Status: Study Guide

- 12) A short contract requires that the investor
- (a) sell securities in the future.
 - (b) buy securities in the future.
 - (c) hedge in the future.
 - (d) close out his position in the future.

Answer: A

Question Status: Previous Edition

- 13) A contract that requires the investor to sell securities on a future date is called a
- (a) short contract.
 - (b) long contract.
 - (c) hedge.
 - (d) micro hedge.

Answer: A

Question Status: Previous Edition

- 14) If a bank manager chooses to hedge his portfolio of treasury securities by selling futures contracts, he
- (a) gives up the opportunity for gains.
 - (b) removes the chance of loss.
 - (c) increases the probability of a gain.
 - (d) both (a) and (b) are true.

Answer: D

Question Status: Previous Edition

- 15) To say that the forward market lacks liquidity means that
- (a) forward contracts usually result in losses.
 - (b) forward contracts cannot be turned into cash.
 - (c) it may be difficult to make the transaction.
 - (d) forward contracts cannot be sold for cash.
 - (e) none of the above.

Answer: C

Question Status: New

- 16) A disadvantage of a forward contract is that
- (a) it may be difficult to locate a counterparty.
 - (b) the forward market suffers from lack of liquidity.
 - (c) these contracts have default risk.
 - (d) all of the above.
 - (e) both (a) and (c) of the above.

Answer: D

Question Status: New

- 17) Forward contracts are risky because they
- (a) are subject to lack of liquidity
 - (b) are subject to default risk.
 - (c) hedge a portfolio.
 - (d) both (a) and (b) are true.

Answer: D

Question Status: Revised

- 18) The advantage of forward contracts over future contracts is that they
- (a) are standardized.
 - (b) have lower default risk.
 - (c) are more liquid.
 - (d) none of the above.

Answer: D

Question Status: Previous Edition

- 19) The advantage of forward contracts over futures contracts is that they
- (a) are standardized.
 - (b) have lower default risk.
 - (c) are more flexible.
 - (d) both (a) and (b) are true.

Answer: C

Question Status: Previous Edition

- 20) Forward contracts are of limited usefulness to financial institutions because
- (a) of default risk.
 - (b) it is impossible to hedge risk.
 - (c) of lack of liquidity.
 - (d) all of the above.
 - (e) both (a) and (c) of the above.

Answer: E

Question Status: New

- 21) Futures contracts are regularly traded on the
- (a) Chicago Board of Trade.
 - (b) New York Stock Exchange.
 - (c) American Stock Exchange.
 - (d) Chicago Board of Options Exchange.

Answer: A

Question Status: Previous Edition

- 22) Hedging in the futures market
- (a) eliminates the opportunity for gains.
 - (b) eliminates the opportunity for losses.
 - (c) increases the earnings potential of the portfolio.
 - (d) does all of the above.
 - (e) does both (a) and (b) of the above.

Answer: E

Question Status: Study Guide

- 23) When interest rates fall, a bank that perfectly hedges its portfolio of Treasury securities in the futures market
- (a) suffers a loss.
 - (b) experiences a gain.
 - (c) has no change in its income.
 - (d) none of the above.

Answer: C

Question Status: Study Guide

- 24) Futures markets have grown rapidly because futures
- (a) are standardized.
 - (b) have lower default risk.
 - (c) are liquid.
 - (d) all of the above.

Answer: D

Question Status: Previous Edition

- 25) Parties who have bought a futures contract and thereby agreed to _____ (take delivery of) the bonds are said to have taken a _____ position.
- (a) sell; short
 - (b) buy; short
 - (c) sell; long
 - (d) buy; long

Answer: D

Question Status: Previous Edition

- 26) Parties who have sold a futures contract and thereby agreed to _____ (deliver) the bonds are said to have taken a _____ position.
- (a) sell; short
 - (b) buy; short
 - (c) sell; long
 - (d) buy; long

Answer: A

Question Status: Previous Edition

- 27) By selling short a futures contract of \$100,000 at a price of 115 you are agreeing to deliver
- (a) \$100,000 face value securities for \$115,000.
 - (b) \$115,000 face value securities for \$110,000.
 - (c) \$100,000 face value securities for \$100,000.
 - (d) \$115,000 face value securities for \$115,000.

Answer: A

Question Status: Previous Edition

- 28) By selling short a futures contract of \$100,000 at a price of 96 you are agreeing to deliver
- (a) \$100,000 face value securities for \$104,167.
 - (b) \$96,000 face value securities for \$100,000.
 - (c) \$100,000 face value securities for \$96,000.
 - (d) \$96,000 face value securities for \$104,167.

Answer: C

Question Status: Revised

- 29) By buying a long \$100,000 futures contract for 115 you agree to pay
- (a) \$100,000 for \$115,000 face value bonds.
 - (b) \$115,000 for \$100,000 face value bonds.
 - (c) \$86,956 for \$100,000 face value bonds.
 - (d) \$86,956 for \$115,000 face value bonds.

Answer: B

Question Status: Previous Edition

- 30) On the expiration date of a futures contract, the price of the contract
- (a) always equals the purchase price of the contract.
 - (b) always equals the average price over the life of the contract.
 - (c) always equals the price of the underlying asset.
 - (d) always equals the average of the purchase price and the price of underlying asset.
 - (e) cannot be determined.

Answer: C

Question Status: New

- 31) The price of a futures contract at the expiration date of the contract
- (a) equals the price of the underlying asset.
 - (b) equals the price of the counterparty.
 - (c) equals the hedge position.
 - (d) equals the value of the hedged asset.
 - (e) none of the above.

Answer: A

Question Status: Study Guide

- 32) Elimination of riskless profit opportunities in the futures market is
- (a) hedging.
 - (b) arbitrage.
 - (c) speculation.
 - (d) underwriting.
 - (e) diversification.

Answer: B

Question Status: New

- 33) If you purchase a \$100,000 interest-rate futures contract for 110, and the price of the Treasury securities on the expiration date is 106
- (a) your profit is \$4000.
 - (b) your loss is \$4000.
 - (c) your profit is \$6000.
 - (d) your loss is \$6000.
 - (e) your profit is \$10,000.

Answer: B

Question Status: New

- 34) If you purchase a \$100,000 interest-rate futures contract for 105, and the price of the Treasury securities on the expiration date is 108
- (a) your profit is \$3000.
 - (b) your loss is \$3000.
 - (c) your profit is \$8000.
 - (d) your loss is \$8000.
 - (e) your profit is \$5000.

Answer: A

Question Status: New

- 35) If you sell a \$100,000 interest-rate futures contract for 110, and the price of the Treasury securities on the expiration date is 106
- (a) your profit is \$4000.
 - (b) your loss is \$4000.
 - (c) your profit is \$6000.
 - (d) your loss is \$6000.
 - (e) your profit is \$10,000.

Answer: A

Question Status: New

- 36) If you sell a \$100,000 interest-rate futures contract for 105, and the price of the Treasury securities on the expiration date is 108
- (a) your profit is \$3000.
 - (b) your loss is \$3000.
 - (c) your profit is \$8000.
 - (d) your loss is \$8000.
 - (e) your profit is \$5000.

Answer: B

Question Status: New

- 37) If you sold a short contract on financial futures you hope interest rates
- (a) rise.
 - (b) fall.
 - (c) are stable.
 - (d) fluctuate.

Answer: A

Question Status: Previous Edition

- 38) If you sold a short futures contract you will hope that interest rates
- (a) rise.
 - (b) fall.
 - (c) are stable.
 - (d) fluctuate.

Answer: A

Question Status: Previous Edition

- 39) If you bought a long contract on financial futures you hope that interest rates
- (a) rise.
 - (b) fall.
 - (c) are stable.
 - (d) fluctuate.

Answer: B

Question Status: Previous Edition

- 40) If you bought a long futures contract you hope that bond prices
- (a) rise.
 - (b) fall.
 - (c) are stable.
 - (d) fluctuate.

Answer: A

Question Status: Previous Edition

- 41) If you sold a short futures contract you will hope that bond prices
- (a) rise.
 - (b) fall.
 - (c) are stable.
 - (d) fluctuate.

Answer: B

Question Status: Previous Edition

- 42) To hedge the interest rate risk on \$4 million of Treasury bonds with \$100,000 futures contracts, you would need to purchase
- (a) 4 contracts.
 - (b) 20 contracts.
 - (c) 25 contracts.
 - (d) 40 contracts.
 - (e) 400 contracts.

Answer: D

Question Status: New

- 43) If you sell twenty-five \$100,000 futures contracts to hedge holdings of a Treasury security, the value of the Treasury securities you are holding is
- (a) \$250,000.
 - (b) \$1,000,000.
 - (c) \$2,500,000.
 - (d) \$5,000,000.
 - (e) \$25,000,000.

Answer: C

Question Status: New

- 44) Assume you are holding Treasury securities and have sold futures to hedge against interest rate risk. If interest rates rise
- (a) the increase in the value of the securities equals the decrease in the value of the futures contracts.
 - (b) the decrease in the value of the securities equals the increase in the value of the futures contracts.
 - (c) the increase in the value of the securities exceeds the decrease in the values of the futures contracts.
 - (d) both the securities and the futures contracts increase in value.
 - (e) both the securities and the futures contracts decrease in value

Answer: B

Question Status: New

- 45) Assume you are holding Treasury securities and have sold futures to hedge against interest rate risk. If interest rates fall
- (a) the increase in the value of the securities equals the decrease in the value of the futures contracts.
 - (b) the decrease in the value of the securities equals the increase in the value of the futures contracts.
 - (c) the increase in the value of the securities exceeds the decrease in the values of the futures contracts.
 - (d) both the securities and the futures contracts increase in value.
 - (e) both the securities and the futures contracts decrease in value.

Answer: A

Question Status: New

- 46) When a financial institution hedges the interest-rate risk for a specific asset, the hedge is called a
- (a) macro hedge.
 - (b) micro hedge.
 - (c) cross hedge.
 - (d) futures hedge.

Answer: B

Question Status: Previous Edition

- 47) When the financial institution is hedging interest-rate risk on its overall portfolio, then the hedge is a
- (a) macro hedge.
 - (b) micro hedge.
 - (c) cross hedge.
 - (d) futures hedge.

Answer: A

Question Status: Previous Edition

- 48) The number of futures contracts outstanding is called
- (a) liquidity.
 - (b) volume.
 - (c) float.
 - (d) open interest.
 - (e) turnover.

Answer: D

Question Status: New

- 49) Which of the following features of futures contracts were not designed to increase liquidity?
- (a) Standardized contracts
 - (b) Traded up until maturity
 - (c) Not tied to one specific type of bond
 - (d) Marked to market daily

Answer: D

Question Status: Previous Edition

- 50) Which of the following features of futures contracts were not designed to increase liquidity?
- (a) Standardized contracts
 - (b) Traded up until maturity
 - (c) Not tied to one specific type of bond
 - (d) Can be closed with off setting trade

Answer: D

Question Status: Previous Edition

- 51) Futures differ from forwards because they are
- (a) used to hedge portfolios.
 - (b) used to hedge individual securities.
 - (c) used in both financial and foreign exchange markets.
 - (d) a standardized contract.

Answer: D

Question Status: Previous Edition

- 52) Futures differ from forwards because they are
- (a) used to hedge portfolios.
 - (b) used to hedge individual securities.
 - (c) used in both financial and foreign exchange markets.
 - (d) marked to market daily.

Answer: D

Question Status: Previous Edition

- 53) The advantage of futures contracts relative to forward contracts is that futures contracts
- (a) are standardized, making it easier to match parties, thereby increasing liquidity.
 - (b) specify that more than one bond is eligible for delivery, making it harder for someone to corner the market and squeeze traders.
 - (c) cannot be traded prior to the delivery date, thereby increasing market liquidity.
 - (d) all of the above.
 - (e) both (a) and (b) of the above.

Answer: E

Question Status: Study Guide

- 54) If a firm is due to be paid in deutsche marks in two months, to hedge against exchange rate risk the firm should
- (a) sell foreign exchange futures short.
 - (b) buy foreign exchange futures long.
 - (c) stay out of the exchange futures market.
 - (d) none of the above.

Answer: A

Question Status: Previous Edition

- 55) If a firm must pay for goods it has ordered with foreign currency, it can hedge its foreign exchange rate risk by
- (a) selling foreign exchange futures short.
 - (b) buying foreign exchange futures long.
 - (c) staying out of the exchange futures market.
 - (d) none of the above.

Answer: B

Question Status: Previous Edition

- 56) If a firm is due to be paid in deutsche marks in two months, to hedge against exchange rate risk the firm should _____ foreign exchange futures _____.
- (a) sell; short
 - (b) buy; long
 - (c) sell; long
 - (d) buy; short

Answer: A

Question Status: Previous Edition

- 57) If a firm must pay for goods it has ordered with foreign currency, it can hedge its foreign exchange rate risk by _____ foreign exchange futures _____.
- (a) selling; short
 - (b) buying; long
 - (c) buying; short
 - (d) selling; long

Answer: B

Question Status: Previous Edition

- 58) Options are contracts that give the purchasers the
- (a) option to buy or sell an underlying asset.
 - (b) the obligation to buy or sell an underlying asset.
 - (c) the right to hold an underlying asset.
 - (d) the right to switch payment streams.

Answer: A

Question Status: Previous Edition

- 59) The price specified on an option that the holder can buy or sell the underlying asset is called the
- (a) premium.
 - (b) call.
 - (c) strike price.
 - (d) put.

Answer: C

Question Status: Previous Edition

- 60) The price specified on an option that the holder can buy or sell the underlying asset is called the
- (a) premium.
 - (b) strike price.
 - (c) exercise price.
 - (d) both (b) and (c) are true.

Answer: D

Question Status: Previous Edition

- 61) The seller of an option has the
- (a) right to buy or sell the underlying asset.
 - (b) the obligation to buy or sell the underlying asset.
 - (c) ability to reduce transaction risk.
 - (d) right to exchange one payment stream for another.

Answer: B

Question Status: Previous Edition

- 62) The seller of an option is _____ to buy or sell the underlying asset while the purchaser of an option has the _____ to buy or sell the asset.
- (a) obligated; right
 - (b) right; obligation
 - (c) obligated; obligation
 - (d) right; right

Answer: A

Question Status: Previous Edition

- 63) The amount paid for an option is the
- (a) strike price.
 - (b) premium.
 - (c) discount.
 - (d) commission.
 - (e) yield.

Answer: B

Question Status: New

- 64) An option that can be exercised at any time up to maturity is called a(n)
- (a) swap.
 - (b) stock option.
 - (c) European option.
 - (d) American option.

Answer: D

Question Status: Previous Edition

- 65) An option that can only be exercised at maturity is called a(n)
- (a) swap.
 - (b) stock option.
 - (c) European option.
 - (d) American option.

Answer: C

Question Status: Previous Edition

- 66) Options on individual stocks are referred to as
- (a) stock options.
 - (b) futures options.
 - (c) American options.
 - (d) individual options.

Answer: A

Question Status: Previous Edition

- 67) Options on futures contracts are referred to as
- (a) stock options.
 - (b) futures options.
 - (c) American options.
 - (d) individual options.

Answer: B

Question Status: Previous Edition

- 68) An option that gives the owner the right to buy a financial instrument at the exercise price within a specified period of time is a
- (a) call option.
 - (b) put option.
 - (c) American option.
 - (d) European option.

Answer: A

Question Status: Previous Edition

- 69) A call option gives the owner
- (a) the right to sell the underlying security.
 - (b) the obligation to sell the underlying security.
 - (c) the right to buy the underlying security.
 - (d) the obligation to buy the underlying security.

Answer: C

Question Status: Previous Edition

- 70) A call option gives the seller
- (a) the right to sell the underlying security.
 - (b) the obligation to sell the underlying security.
 - (c) the right to buy the underlying security.
 - (d) the obligation to buy the underlying security.

Answer: B

Question Status: Previous Edition

- 71) An option allowing the holder to buy an asset in the future is a
- (a) put option.
 - (b) call option.
 - (c) swap.
 - (d) premium.
 - (e) forward contract.

Answer: B

Question Status: Study Guide

- 72) An option that gives the owner the right to sell a financial instrument at the exercise price within a specified period of time is a
- (a) call option.
 - (b) put option.
 - (c) American option.
 - (d) European option.

Answer: B

Question Status: Previous Edition

- 73) A put option gives the owner
- (a) the right to sell the underlying security.
 - (b) the obligation to sell the underlying security.
 - (c) the right to buy the underlying security.
 - (d) the obligation to buy the underlying security.

Answer: A

Question Status: Previous Edition

- 74) A put option gives the seller
- (a) the right to sell the underlying security.
 - (b) the obligation to sell the underlying security.
 - (c) the right to buy the underlying security.
 - (d) the obligation to buy the underlying security.

Answer: D

Question Status: Previous Edition

- 75) An option allowing the owner to sell an asset at a future date is a
- (a) put option.
 - (b) call option.
 - (c) swap.
 - (d) forward contract.
 - (e) futures contract.

Answer: A

Question Status: Study Guide

- 76) If you buy a call option on treasury futures at 115, and at expiration the market price is 110,
- (a) the call will be exercised.
 - (b) the put will be exercised.
 - (c) the call will not be exercised.
 - (d) the put will not be exercised.

Answer: C

Question Status: Previous Edition

- 77) If you buy a call option on treasury futures at 110, and at expiration the market price is 115,
- (a) the call will be exercised.
 - (b) the put will be exercised.
 - (c) the call will not be exercised.
 - (d) the put will not be exercised.

Answer: A

Question Status: Previous Edition

- 78) If you buy a put option on treasury futures at 115, and at expiration the market price is 110,
- (a) the call will be exercised.
 - (b) the put will be exercised.
 - (c) the call will not be exercised.
 - (d) the put will not be exercised.

Answer: B

Question Status: Previous Edition

- 79) If you buy a put option on treasury futures at 110, and at expiration the market price is 115,
- (a) the call will be exercised.
 - (b) the put will be exercised.
 - (c) the call will not be exercised.
 - (d) the put will not be exercised.

Answer: D

Question Status: Previous Edition

- 80) If, for a \$1000 premium, you buy a \$100,000 call option on bond futures with a strike price of 110, and at the expiration date the price is 114
- (a) your profit is \$4000.
 - (b) your loss is \$4000.
 - (c) your profit is \$3000.
 - (d) your loss is \$3000.
 - (e) your loss is \$1000.

Answer: C

Question Status: New

- 81) If, for a \$1000 premium, you buy a \$100,000 call option on bond futures with a strike price of 114, and at the expiration date the price is 110
- (a) your profit is \$4000.
 - (b) your loss is \$4000.
 - (c) your profit is \$3000.
 - (d) your loss is \$3000.
 - (e) your loss is \$1000.

Answer: E

Question Status: New

- 82) If, for a \$1000 premium, you buy a \$100,000 put option on bond futures with a strike price of 110, and at the expiration date the price is 114
- (a) your profit is \$4000.
 - (b) your loss is \$4000.
 - (c) your profit is \$3000.
 - (d) your loss is \$3000.
 - (e) your loss is \$1000.

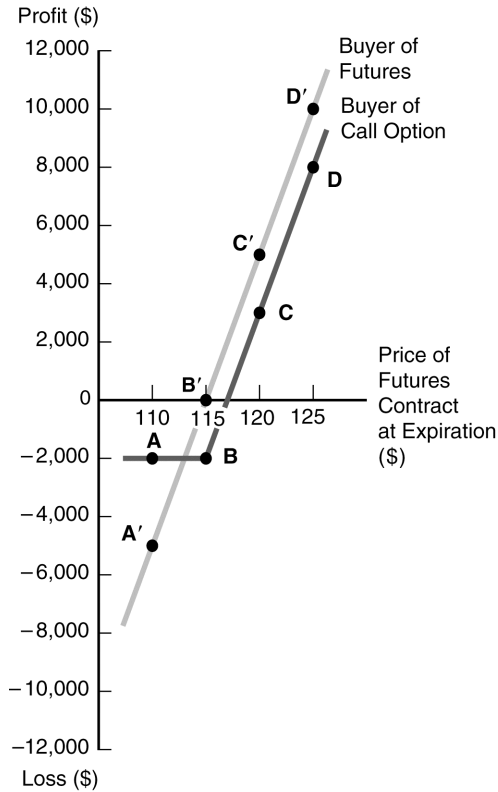
Answer: E

Question Status: New

- 83) If, for a \$1000 premium, you buy a \$100,000 put option on bond futures with a strike price of 114, and at the expiration date the price is 110
- (a) your profit is \$4000.
 - (b) your loss is \$4000.
 - (c) your profit is \$3000.
 - (d) your loss is \$3000.
 - (e) your loss is \$1000.

Answer: C

Question Status: New



(a) Profit or loss for buyer of call option and buyer of futures

Figure 13-1

84) In figure 13-1, with a expiration price of 110, the best return is obtained by

- (a) buying futures.
- (b) buying a call option.
- (c) selling futures.
- (d) buying a put option.
- (e) none of the above.

Answer: B

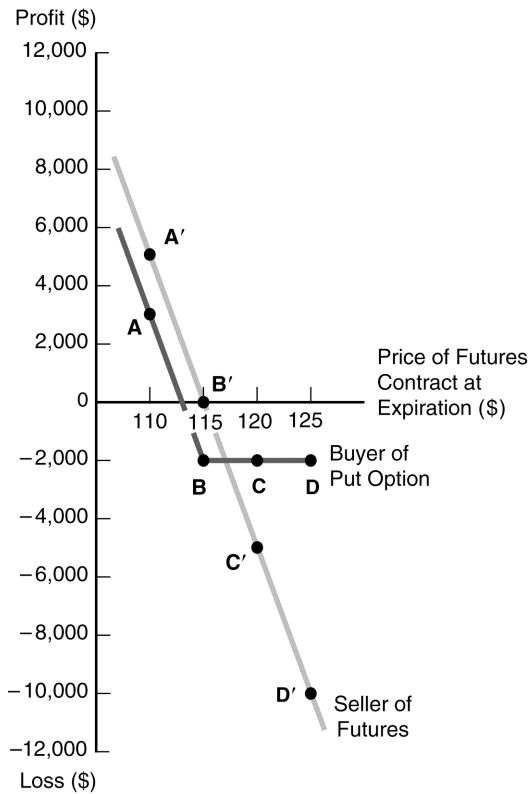
Question Status: New

85) In figure 13-1, with a expiration price of 120, the best return is obtained by

- (a) buying futures.
- (b) buying a call option.
- (c) selling futures.
- (d) buying a put option.
- (e) none of the above.

Answer: A

Question Status: New



(b) Profit or loss for buyer of put option and seller of futures

Figure 13-2

86) In figure 13-2, with a expiration price of 110, the best return is obtained by

- (a) buying futures.
- (b) buying a call option.
- (c) selling futures.
- (d) buying a put option.
- (e) none of the above.

Answer: C

Question Status: New

87) In figure 13-2, with a expiration price of 120, the best return is obtained by

- (a) buying futures.
- (b) buying a call option.
- (c) selling futures.
- (d) buying a put option.
- (e) none of the above.

Answer: D

Question Status: New

- 88) The main advantage of using options on futures contracts rather than the futures contracts themselves is that
- (a) interest rate risk is controlled while preserving the possibility of gains.
 - (b) interest rate risk is controlled, while removing the possibility of losses.
 - (c) interest rate risk is not controlled, but the possibility of gains is preserved.
 - (d) interest rate risk is not controlled, but the possibility of gains is lost.

Answer: A

Question Status: Previous Edition

- 89) The main reason to buy an option on a futures contract rather than the futures contract is
- (a) to reduce transaction cost.
 - (b) to preserve the possibility for gains.
 - (c) to limit losses.
 - (d) remove the possibility for gains.

Answer: B

Question Status: Previous Edition

- 90) The main disadvantage of hedging with futures contracts as compared to options on futures contracts is that futures
- (a) remove the possibility of gains.
 - (b) increase the transactions cost.
 - (c) are not as an effective a hedge.
 - (d) do not remove the possibility of losses.

Answer: A

Question Status: Revised

- 91) If a bank manager wants to protect the bank against losses that would be incurred on its portfolio of treasury securities should interest rates rise, he could
- (a) buy put options on financial futures.
 - (b) buy call options on financial futures.
 - (c) sell put options on financial futures.
 - (d) sell call options on financial futures.

Answer: A

Question Status: Previous Edition

- 92) Hedging by buying an option
- (a) limits gains.
 - (b) limits losses.
 - (c) limits gains and losses.
 - (d) has no limit on option premiums.
 - (e) has no limit on losses.

Answer: B

Question Status: Study Guide

- 93) All other things held constant, premiums on options will increase when the
- (a) exercise price increases.
 - (b) volatility of the underlying asset falls.
 - (c) term to maturity increases.
 - (d) (a) and (c) are both true.

Answer: C

Question Status: Previous Edition

- 94) All other things held constant, premiums on call options will increase when the
- (a) exercise price falls.
 - (b) volatility of the underlying asset falls.
 - (c) term to maturity decreases.
 - (d) futures price increases.

Answer: A

Question Status: Revised

- 95) An increase in the exercise price, all other things held constant, will _____ the call option premium.
- (a) increase
 - (b) decrease
 - (c) increase or decrease
 - (d) Not enough information is given.

Answer: B

Question Status: Revised

- 96) All other things held constant, premiums on options will increase when the
- (a) exercise price increases.
 - (b) volatility of the underlying asset increases.
 - (c) term to maturity decreases.
 - (d) futures price increases.

Answer: B

Question Status: Previous Edition

- 97) An increase in the volatility of the underlying asset, all other things held constant, will _____ the option premium.
- (a) increase
 - (b) decrease
 - (c) increase or decrease
 - (d) Not enough information is given.

Answer: A

Question Status: Previous Edition

- 98) A tool for managing interest rate risk that requires exchange of payment streams is a
- (a) futures contract.
 - (b) forward contract.
 - (c) swap.
 - (d) micro hedge.
 - (e) macro hedge.
- Answer: C
Question Status: Study Guide
- 99) A financial contract that obligates one party to exchange a set of payments it owns for another set of payments owned by another party is called a
- (a) hedge.
 - (b) call option.
 - (c) put option.
 - (d) swap.
- Answer: D
Question Status: Revised
- 100) A swap that involves the exchange of a set of payments in one currency for a set of payments in another currency is a(n)
- (a) interest rate swap.
 - (b) currency swap.
 - (c) swaptions.
 - (d) national swap.
- Answer: B
Question Status: Previous Edition
- 101) A swap that involves the exchange of one set of interest payments for another set of interest payments is called a(n)
- (a) interest rate swap.
 - (b) currency swap.
 - (c) swaptions.
 - (d) national swap.
- Answer: A
Question Status: Previous Edition
- 102) A firm that sells goods to foreign countries on a regular basis can avoid exchange rate risk by
- (a) buying stock options.
 - (b) selling puts on financial futures.
 - (c) selling a foreign exchange swap.
 - (d) buying swaptions.
- Answer: C
Question Status: Previous Edition

103) The most common type of interest rate swap is

- (a) the plain vanilla swap.
- (b) the basic swap.
- (c) the swaption.
- (d) the notional swap.
- (e) the ordinary swap.

Answer: A

Question Status: New

104) If Second National Bank has more rate-sensitive assets than rate-sensitive liabilities, it can reduce interest rate risk with a swap that requires Second National to

- (a) pay fixed rate while receiving floating rate.
- (b) receive fixed rate while paying floating rate.
- (c) both receive and pay fixed rate.
- (d) both receive and pay floating rate.

Answer: B

Question Status: Previous Edition

105) If a bank has more rate-sensitive assets than rate-sensitive liabilities

- (a) it reduces interest rate risk by swapping rate-sensitive income for fixed rate income.
- (b) it reduces interest rate risk by swapping fixed rate income for rate-sensitive income.
- (c) it increases interest rate risk by swapping rate-sensitive income for fixed rate income.
- (d) it neutralizes interest rate risk by receiving and paying fixed-rate streams.
- (e) it cannot reduce its interest rate risk.

Answer: A

Question Status: New

106) If Second National Bank has more rate-sensitive liabilities than rate-sensitive assets, it can reduce interest rate risk with a swap that requires Second National to

- (a) pay fixed rate while receiving floating rate.
- (b) receive fixed rate while paying floating rate.
- (c) both receive and pay fixed rate.
- (d) both receive and pay floating rate.

Answer: A

Question Status: Previous Edition

107) One advantage of using swaps to eliminate interest rate risk is that swaps

- (a) are less costly than futures.
- (b) are less costly than rearranging balance sheets.
- (c) are more liquid than futures.
- (d) have better accounting treatment than options.

Answer: B

Question Status: Previous Edition

- 108) A advantage of using swaps to hedge interest rate risk is that swaps
- (a) are less costly than futures.
 - (b) can be written for long horizons.
 - (c) are not subject to default risk.
 - (d) are more liquid than futures.
 - (e) have better accounting treatment than options.

Answer: B

Question Status: New

- 109) The disadvantage of swaps is that they
- (a) lack liquidity.
 - (b) are difficult to arrange for a counterparty.
 - (c) suffer from default risk.
 - (d) all of the above.

Answer: D

Question Status: Previous Edition

- 110) A disadvantage of using swaps to control interest rate risk is that
- (a) swaps cannot be written for long horizons.
 - (b) swaps are more expensive than restructuring balance sheets.
 - (c) swaps, like forward contracts, lack liquidity.
 - (d) all of the above are disadvantages of swaps.
 - (e) only (a) and (b) of the above are disadvantages of swaps.

Answer: C

Question Status: Study Guide

- 111) The problems of default risk and finding counterparties for interest rate swaps has been reduced by
- (a) government regulation.
 - (b) writing complex contracts.
 - (c) commercial and investment banks serving as intermediaries.
 - (d) all of the above.
 - (e) both (b) and (c) of the above.

Answer: C

Question Status: New

■ Essay Questions

- 1) What is arbitrage? Explain why arbitrage drives the contract price of futures to the price of the underlying asset on the expiration date, for prices above and below the asset price.

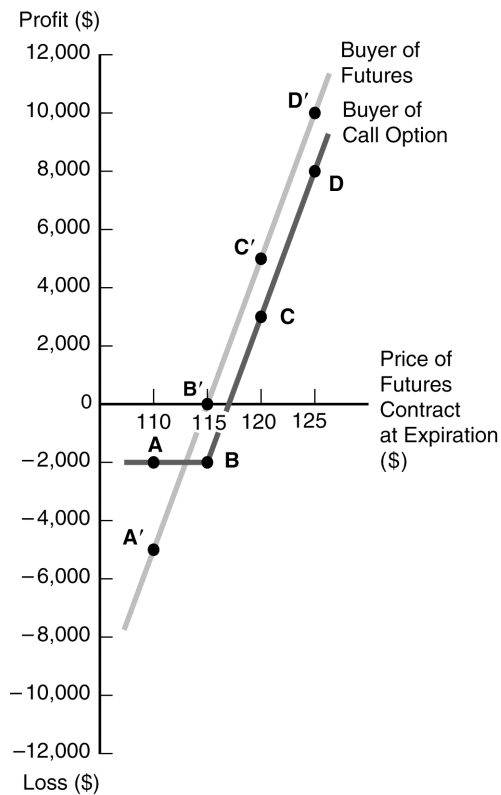
Answer: Arbitrage is the riskless elimination of profit opportunities in futures markets. If the contract price is 111, and the asset price is 110, contracts will be sold at 111,000 and the asset purchased for \$110,000. The bonds will be purchased at the market price and delivered to fulfill the contract, for a profit of \$1000. This will continue until the contract price falls to equal the asset price. Similarly, if the contract price is 109, and the asset price is 110, everyone will buy the contract, and sell the bond for \$110,000 after buying it for \$109,000 on the market. Again, this activity will drive up the bond price and drive down the asset price until they are equal.

2) Explain the margin requirement for financial futures and how marking to market affects the margin account.

Answer: Each contract requires a margin deposit of a specified amount. Each day futures contracts are marked to market. This means that each day the margin account is changed by the gain or loss of value of the contract. Assuming a contract of 110, if the settlement (closing) price falls to 109, the \$1000 loss is subtracted from the account and an additional \$1000 must be added to the margin account. Conversely, a rise in the contract price to 111 means the \$1000 profit is added to the account, increasing the value of the account above the required minimum.

3) Show graphically and explain the profits and losses of buying futures relative to buying call options.

Answer: As shown in the graph, the profit-loss function for futures is linear. Both gains and losses grow linearly for each \$1 change in the underlying security price at expiration. The profit curve for options is nonlinear. The loss is limited to the amount of the premium. Profits are a linear function of the asset price at expiration, but profits from options are always less than for futures by the amount of the premium. The key differences are that options losses are limited, while futures losses are not. Gains for futures and options are linear functions of the expiration price, but option profits are always less than futures profits by the amount of the premium.



(a) Profit or loss for buyer of call option and buyer of futures