Hull: Options, Futures, and Other Derivatives, Ninth Edition
Chapter 2: Mechanics of Futures Markets
Multiple Choice Test Bank: Question with Answers

1. Which of the following is true
   A. Both forward and futures contracts are traded on exchanges.
   B. Forward contracts are traded on exchanges, but futures contracts are not.
   C. Futures contracts are traded on exchanges, but forward contracts are not.
   D. Neither futures contracts nor forward contracts are traded on exchanges.

   Answer: C

Futures contracts trade only on exchanges. Forward contracts trade only in the over-the-counter market.

2. Which of the following is NOT true
   A. Futures contracts nearly always last longer than forward contracts
   B. Futures contracts are standardized; forward contracts are not.
   C. Delivery or final cash settlement usually takes place with forward contracts; the same is not true of futures contracts.
   D. Forward contracts usually have one specified delivery date; futures contract often have a range of delivery dates.

   Answer: A

Forward contracts often last longer than futures contracts. B, C, and D are true

3. In the corn futures contract a number of different types of corn can be delivered (with price adjustments specified by the exchange) and there are a number of different delivery locations. Which of the following is true
   A. This flexibility tends increase the futures price.
   B. This flexibility tends decrease the futures price.
   C. This flexibility may increase and may decrease the futures price.
   D. This flexibility has no effect on the futures price

   Answer: B

The party with the short position chooses between the alternatives. The alternatives therefore make the futures contract more attractive to the party with the short position. The lower the futures price the less attractive it is to the party with the short position. The benefit of the alternatives available to the party with the short position is therefore compensated for by the futures price being lower than it would otherwise be.

4. A company enters into a short futures contract to sell fl0,000 units of a commodity for 70 cents per unit. The initial margin is $4,000 and the maintenance margin is $3,000. What is the futures price per unit above which there will be a margin call?
   A. 78 cents
   B. 76 cents
   C. 74 cents
   D. 72 cents

   Answer: D

There will be a margin call when more than $1000 has been lost from the margin account so that the balance in the account is below the maintenance margin level. Because the company is short, each one cent rise in the price leads to a loss or 0.01×fl0,000 or $fl00. A greater than 2 cent rise in the futures price will therefore lead to a margin call. The future price is currently 70 cents. When the price rises above 72 cents there will be a margin call.

fl. A company enters into a long futures contract to buy 1,000 units of a commodity for $60 per unit. The initial margin is $6,000 and the maintenance margin is $4,000. What futures price will allow $2,000 to be withdrawn from the margin account?
   A. $fl8
   B. $62
   C. $64
   D. $66

   Answer: B

Amounts in the margin account in excess of the initial margin can be withdrawn. Each $1 increase in the futures price leads to a gain of $1000. When the futures price increases by $2 the gain will be $2000 and this can be withdrawn. The futures price is currently $60. The answer is therefore $62.

6. One futures contract is traded where both the long and short parties are closing out existing positions. What is the resultant change in the open interest?
   A. No change
   B. Decrease by one
   C. Decrease by two
   D. Increase by one

   Answer: B

The open interest goes down by one. There is one less long position and one less short position.

7. Who initiates delivery in a corn futures contract
   A. The party with the long position
   B. The party with the short position
   C. Either party
   D. The exchange

   Answer: B

The party with the short position initiates delivery by sending a "Notice of Intention to Deliver" to the exchange. The exchange has a procedure for choosing a party with a long position to take delivery.

8. You sell one December futures contracts when the futures price is $1,010 per unit. Each contract is on 100 units and the initial margin per contract that you provide is $2,000. The maintenance margin per contract is $1,fl00. During the next day the futures price rises to $1,012 per unit. What is the balance of your margin account at the end of the day?
   A. $1,800
   B. $3,300
   C. $2,200
   D. $3,700

   Answer: B

The price has increased by $2. Because you have a short position you lose 2×100 or $200. The balance in the margin account therefore goes down from $3,fl00 to $3,300.

9. A hedger takes a long position in a futures contract on a commodity on November 1, 2012 to hedge an exposure on March 1, 2013. The initial futures price is $60. On December 31, 2012 the futures price is $61. On March 1, 2013 it is $64. The contract is closed out on March 1, 2013. What gain is recognized in the accounting year January 1 to December 31, 2013? Each contract is on 1000 units of the commodity.
   A. $0
   B. $1,000
   C. $3,000
   D. $4,000

   Answer: D

Hedge accounting is used. The whole of the gain or loss on the futures is therefore recognized in 2013. None is recognized in 2012. In this case the gain is $4 per unit or $4,000 in total.

10. A speculator takes a long position in a futures contract on a commodity on November 1, 2012 to hedge an exposure on March 1, 2013. The initial futures price is $60. On December 31, 2012 the futures price is $61. On March 1, 2013 it is $64. The contract is closed out on March 1, 2013. What gain is recognized in the accounting year January 1 to December 31, 2013? Each contract is on 1000 units of the commodity.
   A. $0
   B. $1,000
   C. $3,000
   D. $4,000

   Answer: C

In this case there is no hedge accounting. Gains or losses are accounted for as they are accrued. The price per unit increases by $3 in 2013. The total gain in 2013 is therefore $3,000.

11. The frequency with which futures margin accounts are adjusted for gains and losses is
   A. Daily
   B. Weekly
   C. Monthly
   D. Quarterly

   Answer: A

In futures contracts margin accounts are adjusted for gains or losses daily.

12. Margin accounts have the effect of
   A. Reducing the risk of one party regretting the deal and backing out
   B. Ensuring funds are available to pay traders when they make a profit
   C. Reducing systemic risk due to collapse of futures markets
   D. All of the above

   Answer: D

Initial margin requirements dramatically reduce the risk that a party will walk away from a futures contract. As a result they reduce the risk that the exchange clearing house will not have enough funds to pays profits to traders. Furthermore, if traders are less likely to suffer losses because of counterparty defaults there is less systemic risk.

13. Which entity in the United States takes primary responsibility for regulating futures market?
   A. Federal Reserve Board

B. Commodities Futures Trading Commission (CFTC)
C. Security and Exchange Commission (SEC)
D. US Treasury

Answer: B

The CFTC has primary responsibility for regulating futures markets

14. For a futures contract trading in April 2012, the open interest for a June 2012 contract, when compared to the open interest for Sept 2012 contracts, is usually
A. Higher
B. Lower
C. The same
D. Equally likely to be higher or lower

Answer: A

The contracts which are close to maturity tend to have the highest open interest. However, during the maturity month itself the open interest declines.

1fl. Clearing houses are
A. Never used in futures markets and sometimes used in OTC markets
B. Used in OTC markets, but not in futures markets
C. Always used in futures markets and sometimes used in OTC markets
D. Always used in both futures markets and OTC markets

Answer: C

Clearing houses are always used by exchanges trading futures. Increasingly, OTC products are cleared through CCPs, which are a type of clearing house.

16. A haircut of 20% means that
A. A bond with a market value of $100 is considered to be worth $80 when used to satisfy a collateral request
B. A bond with a face value of $100 is considered to be worth $80 when used to satisfy a collateral request
C. A bond with a market value of $100 is considered to be worth $83.3 when used to satisfy a collateral request
D. A bond with a face value of $100 is considered to be worth $83.3 when used to satisfy a collateral request

Answer: A

A haircut is the amount the market price of asset is reduced by for the purposes of determining its value for collateral purposes. A is therefore correct.

17. With bilateral clearing, the number of agreements between four dealers, who trade with each other, is
    A. 12
    B. 1
    C. 6
    D. 2

    Answer: C

Suppose the dealers are W, X, Y , and Z. The agreements are between W and X, W and Y, W and Z, X and Y, X and Z, and Y and Z. There are therefore a total of 6 agreements.

18. Which of the following best describes central clearing parties
    A. Help market participants to value derivative transactions
    B. Must be used for all OTC derivative transactions
    C. Are used for futures transactions
    D. Perform a similar function to exchange clearing houses

    Answer: D

CCPs do for the OTC market what exchange clearing houses do for the exchange-traded market. The correct answer is therefore D. CCPs must be used for most standard OTC derivatives transactions, but not for all derivatives transactions.

19. Which of the following are cash settled
    A. All futures contracts
    B. All option contracts
    C. Futures on commodities
    D. Futures on stock indices

    Answer: D

Futures on stock indices are usually cash settled. The rest are settled by delivery of the underlying assets

20. A limit order
    A. Is an order to trade up to a certain number of futures contracts at a certain price
    B. Is an order that can be executed at a specified price or one more favorable to the investor
    C. Is an order that must be executed within a specified period of time
    D. None of the above

Answer: B

In a limit order a trader specifies the worst price (from the trader's perspective) at which the trade can be carried out.