



Chapter 1

Introduction

Test Bank

1. List three types of traders in futures, forward and options markets
 - i. _ _ _ _ _
 - ii. _ _ _ _ _
 - iii. _ _ _ _ _
2. Which of the following is **not** true? (choose one)
 - a. When an ASX call option on BHP is exercised, BHP issues more stock.
 - b. An American option can be exercised at any time during its life.
 - c. A European call option will always be exercised at maturity if the underlying asset price is greater than the strike price.
 - d. A European put option will always be exercised at maturity if the strike price is greater than the underlying asset price.
3. A trader enters into a one-year short forward contract to sell an asset for \$60 when the spot price is \$58. The spot price in one year proves to be \$63. What is the trader's gain or loss? Show a dollar amount and indicate whether it is a gain or a loss. _ _ _ _ _
4. A trader buys 100 European call options (i.e. one contract) with a strike price of \$20 and a time to maturity of one year. The cost of each option is \$2. The price of the underlying asset proves to be \$25 in one year. What is the trader's gain or loss? Show a dollar amount and indicate whether it is a gain or a loss. _ _ _ _ _

5. A trader sells 100 European put options (i.e. one contract) with a strike price of \$50 and a time to maturity of six months. The price received for each option is \$4. The price of the underlying asset is \$41 in six months. What is the trader's gain or loss? Show a dollar amount and indicate whether it is a gain or a loss. _ _ _ _ _

6. The price of a stock is \$36 and the price of a three-month call option on the stock, with a strike price of \$36, is \$3.60. Suppose a trader has \$3600 to invest and is trying to choose between buying 1000 options and 100 shares of stock. How high does the stock price have to rise for an investment in options to lead to the same profit as an investment in the stock? _ _ _ _ _

7. A one-year call option on a stock with a strike price of \$30 costs \$3. A one-year put option on the stock with a strike price of \$30 costs \$4. Suppose that a trader buys two call options and one put option.
 - (i) What is the breakeven stock price, above which the trader makes a profit?
_ _ _ _ _

 - (ii) What is the breakeven stock price, below which the trader makes a profit?
_ _ _ _ _

8. Compare the differences between hedging using forward contracts and hedging using options.

Chapter 2

Mechanics of futures markets

Test Bank

1. Which of the following is true? (choose one)
 - (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.

2. Which of the following is **not** true? (choose one)
 - (a) Futures contracts nearly always last longer than forward contracts.
 - (b) Futures contracts are standardised; forward contracts are not.
 - (c) Delivery or final cash settlement usually takes place with forward contracts; the same is not true for futures contracts.
 - (d) Forward contracts usually have one specified delivery date; futures contracts often have a range of delivery dates.

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? (choose one)
 - (a) This flexibility tends to increase the futures price.
 - (b) This flexibility tends to decrease the futures price.
 - (c) This flexibility may increase and may decrease the futures price.
 - (d) This has no effect on the futures price.

4. A company enters into a short futures contract to sell 50 000 units of a commodity for 70 cents per unit. The initial margin is \$4000 and the maintenance margin is \$3000. What is the futures price per unit, above which there will be a margin call?

5. A company enters into a long futures contract to buy 1000 barrels of oil

at \$60 per barrel. The initial margin is \$6000 and the maintenance margin is \$4000. What oil futures price will allow \$2000 to be withdrawn from the margin account? _____

6. On the floor of a futures exchange, 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? (choose one)
(a) No change
(b) Decrease by one
(c) Decrease by two
(d) Increase by one
7. Who initiates delivery in a corn futures contract? (choose one)
(a) The party with the long position
(b) The party with the short position
(c) Either party
(d) The exchange
8. You sell one December gold futures contract when the futures price is \$1010 per ounce. Each contract is on 100 ounces of gold and the initial margin per contract that you provide is \$2000. The maintenance margin per contract is \$1500. During the next day, the futures price rises to \$1012 per ounce. What is the balance of your margin account at the end of the day? _ _ _ _ _
9. A hedger takes a long position in an oil futures contract on April 1 2014 to hedge an exposure on September 1 2014. The initial futures price is \$60. On June 30 2014, the futures price is \$61. On September 1 2014, it is \$64. The contract is closed out on September 1 2014. What gain is recognised in the financial year July 1 2013 to June 30 2014? Each contract is on 1,000 barrels of oil. _ _ _ _ _
10. What is your answer to question 9 if the trader is a speculator rather than a hedger?
_ _ _ _ _
11. The one-year Canadian dollar forward exchange rate is quoted as 1.0500. What is the corresponding futures quote? Give four decimal places. _ _ _ _ _
12. An Australian company wishes to sell 1000 bales of cotton if the market price reaches \$440 per bale or above. What order should the company place when the current market price for cotton is \$380 per bale?

Test bank answers

Chapter 1

1: hedgers, speculators, arbitrageurs; **2:**(a); **3:** \$3 loss; **4:** \$300 gain; **5:** \$500 loss; **6:** \$40; **7(i):** \$35; **7(ii):** \$20; **8:** Forward contracts help hedger to mitigate risk of adverse price movement by fixing the purchase price or the sale price for the underlying asset. On the contrary, options protect hedger from the downside risk while still provides an opportunity to gain from favourable price movements. Besides, it costs nothing to enter into a forward contract, whereas option requires an up-front fee.

Chapter 2

1: (c); **2:** (a); **3:** (b); **4:** 72 cents; **5:** \$62; **6:** (b); **7:** (b); **8:** \$1800; **9:** \$4000; **10:** \$3000; **11:** 0.9524; **12:** limit order with limit price of \$440 per bale.