Chapter 1 – Assessment

1. The short forward’s P&L is depicted in a P&L diagram as:
   1. a downward sloping line
   2. a horizontal line
   3. a vertical line
   4. an upward sloping line

*Answer: A downward sloping line*

1. The horizontal axis of a P&L diagram represents:
   1. the P&L at initiation
   2. the P&L at expiration
   3. the underlying asset price at initiation
   4. the underlying asset price at expiration

*Answer: The underlying asset price at expiration*

1. Consider a forward price of $45,500. What is the maximum profit that the short forward can earn?
   1. $34,500
   2. 0
   3. $45,500
   4. None of the above

*Answer: $45,500. The maximum short forward profit is = $45,500 - 0 = $45,500.*

1. The short forward payoff is:
   1. always greater than the payoff to the long position
   2. always less than the payoff to the long position
   3. always equal to the payoff to the long position
   4. None of the above

*Answer: None of the above. The short forward payoff can be greater, less, or equal to the long forward payoff*

1. The price at which the long futures position is obligated to purchase the underlying asset is:
   1. The forward price
   2. The futures price
   3. The strike price
   4. The exercise price
   5. None of the above

*Answer: The futures price*

1. The short forward is:
   1. obligated to deliver the underlying asset at initiation
   2. obligated to deliver the underlying asset at expiration
   3. obligated to pay the forward price at expiration
   4. obligated to pay the forward price at initiation

*Answer: Obligated to deliver the underlying asset at expiration*

1. One Chicago is:
   1. another name for the CBOE
   2. the only futures exchange in the U.S. that trades equity index futures contracts
   3. primarily an options exchange
   4. none of the above

*Answer: None of the above*

1. The positive P&L range for the long forward is:
   1. to the right of the breakeven point on a P&L diagram
   2. to the left of the breakeven point on a P&L diagram
   3. both to the right and left of the breakeven point on a P&L diagram
   4. Nonexistent

*Answer: To the right of the breakeven point on a P&L diagram*

1. Consider a portfolio consisting of five long forwards and seven short forwards. Which of the following best describes the maximum P&L that this portfolio can potentially earn?
   1. -2 *x F*
   2. 7 *x F*
   3. 2 *x F*
   4. -5 *x F*

*Answer: 2 x F. The payoff is 5 x (ST - F) + 7 x (F - ST) = 2 x (F - ST). The maximum profit will occur when the stock price is equal to zero. This profit is equal to 2 x F*

1. Consider a forward price of $83.25. Your portfolio consists of 323 long forwards and 83 short forwards. If the underlying asset price at expiration is equal to $91.43, what is the portfolio payoff?
   1. $1,963.20
   2. $323
   3. $83.20
   4. None of the above

*Answer: $1,963.20. The payoff is: 323 x ($91.43 - $83.25) + 83 x ($83.25 - $91.43) = $1,963.20*

1. The short forward is obligated to:
   1. purchase the underlying asset
   2. sell the underlying asset
   3. Either purchase or sell depending on the nature of the forward contract
   4. None of the above

*Answer: Sell the underlying asset*

1. If the forward price is $22 and the underlying asset price at expiration is $21.25, what is the long position's payoff?
   1. $0.75
   2. $21.25
   3. -$0.75
   4. -$21.25

*Answer: -$0.75. Explanation: Long Position Payoff = ST - F = $21.25 - $22 = -$0.75*

1. The short position earns a profit when:
   1. *F* > *ST*
   2. *F* < *ST*
   3. *F* = *ST*
   4. Never

*Answer: F* > *ST*

1. The short position breakeven point is:
   1. *F* = *ST*
   2. *F* = *St*
   3. *F* = *S0*
   4. None of the above

*Answer: F* = *ST*

1. The process through which a CCP becomes a counterparty to each of the original counterparties to a transaction is called:
   1. Transition
   2. Conversion
   3. Novation
   4. Hypothecation

*Answer: Novation*