Seminar 9

A. Multiple Choice Questions

A1. Briefly define the concept of time value of a call option, and explain why the time value of a call option is always greater than zero?

A2. Identify the fundamental distinction between a futures contract and an option contract and briefly explain the difference in the manner that futures and options modify portfolio risk.

A3. An investor is considering stock options with three-month expiration. If she believes stock prices will not change for the next three months, to maximize profit she should:
1. Buy a call option, **2.** Buy a call and sell a put option, **3.** Sell a put and sell a call option or **4.** Buy a put option?
Justify your answer.

A4. ABC Corp. stock is currently trading at $65. Assuming an investor buys a call option on 100 shares of ABC Corp. stock, which includes a call premium of $2.5 per share and a strike price of $68, what is the profit or loss on the expiration day of the call if the stock closes at $72?

A5. An investor buys a put option on stock that she owns. Which of the following best describes the total return of her position as compared to the return from the stock alone if the stock price stays the same?
1. Significantly higher return, **2.** Slightly higher return, **3.** Slightly lower return and, **4.** Significantly lower return.
Justify your answer.

A6.
For farmers seeking to protect themselves from falling commodity prices when they sell their produce, which of the following would be an appropriate course of action?
a. To go long in a commodity futures contract
b. To go short in a commodity futures contract
c. To go short in a commodity put option
d. To go long in a commodity call option

A7.
The current spot price for oil is $102, with a one year futures price of $106 and a net cost of carry of 3%. What arbitrage is possible?
a. Cash and carry arbitrage making a profit of $0.89/barrel
b. Cash and carry arbitrage making a profit of $4.00/barrel
c. Reverse cash and carry arbitrage making a profit of $0.89/barrel
d. Reverse cash and carry arbitrage making a profit of $4.00/barrel

A8.
For an airline seeking to guard itself against rising fuel prices, which of the following would be an appropriate course of action?
a. To go long in oil futures
b. To go short in oil futures
c. To go short in oil call options
d. To go long in oil put options

A9.
Joe longs 10 universal stock futures on a large UK company at a price of £4.50. The next day, the futures price has risen to £4.95 and Joe closes out. What profit does Joe make?
a. £0.45
b. £4.50
c. £450
d. £4500

A10.
What is the worst that could happen to you if you held a long call option?
a. Lose the cost of the option
b. Lose the exercise price of the option
c. Lose the exercise price less the cost of the option
d. Lose everything you own

A11.
Why are speculators important for the futures and options markets?
a. They provide price transparency
b. They provide liquidity
c. They ensure the market is priced correctly
d. They ensure risk management occurs in the market

A12.
Which of the following involves the least potential loss?
a. Long futures position
b. Short futures position
c. Long options position
d. Short options position

B. Long Answer Questions

B1. Suppose the value of S&P 500 stock index is currently 1,200. If the one-year T-bill rate is 6.5% and the expected dividend yield on the S&P 500 is 2%, what should the one year maturity futures price be?