

Seminar 9

Option - theory

1. A ____ grants the owner the right to purchase a specified financial instrument for a specified price within a specified period of time.
 - a. call option
 - b. put option
 - c. sale of a futures contract
 - d. purchase of a futures contract

2. A call option is "in the money" when the
 - a. market price of the underlying security exceeds the exercise price.
 - b. market price of the underlying security equals the exercise price.
 - c. market price of the underlying security is less than the exercise price.
 - d. premium on the option is less than the exercise price.

3. A put option is "out of the money" when the
 - a. market price of the security exceeds the exercise price.
 - b. market price of the security equals the exercise price.
 - c. market price of the security is less than the exercise price.
 - d. premium on the option is less than the exercise price.

4. When the market price of the underlying security exceeds the exercise price, the
 - a. call option is in the money.
 - b. put option is in the money.
 - c. call option is at the money.
 - d. call option is out of the money.

5. When the exercise price exceeds the market price of the underlying security, the
 - a. call option is in the money.
 - b. put option is in the money.
 - c. call option is at the money.
 - d. put option is out of the money.

6. Sellers (writers) of call options can offset their position at any point in time by
 - a. selling a put option on the same stock.
 - b. buying identical call options.
 - c. selling additional call options on the same stock.
 - d. all of the above
 - e. A and B

1. A speculator buys a call option for \$3, with an exercise price of \$50. The stock is currently priced at \$49, and rises to \$55 on the expiration date. The speculator will exercise the option on the expiration date (if it is feasible to do so). What is the speculator's profit per unit?

2. A speculator purchases a put option for a premium of \$4, with an exercise price of \$30. The stock is presently priced at \$29, and rises to \$32 before the expiration date. What is the maximum profit per unit to the speculator who owned the put option assuming he or she exercises the option at the ideal time?
3. A speculator purchases a put option for a premium of \$4, with an exercise price of \$30. The stock is presently priced at \$29, and rises to \$32 before the expiration date. What is the stock price at which the speculator would break even?
4. Assume a pension fund purchased stock at \$53. Call options at a \$50 exercise price presently have a \$4 premium per share. The pension fund sells a call option on the stock it owns. If the call option is exercised when the price of the stock is \$56, what is the gain or loss per share to the pension fund (including its gain from holding the stock as well)?
5. Assume an insurance company purchases a call option on an S&P 500 Index futures contract for a premium of 3500, with an exercise price of 1800. The value of an S&P 500 futures contract is 250 times the index. If the index on the futures contract increases to 1830, what is the gain on the sale of the futures contract?
6. A speculator purchased a call option with an exercise price of \$31 for a premium of \$4. The option was exercised a few days later when the stock price was \$34. What was the return to the speculator?