

Example C.3

Bill purchases a \$100 strike price put option with 6 months to expiration for a premium of \$6.58. The risk-free rate is 6 % convertible semiannually. Calculate Bill's profit if the underlying asset in 6 months costs \$90.

Solution

The payoff of Bill's put option is $\max\{\$100 - \$90, 0\} = \$10$.

The future value of the premium is $1.03 * \$6.58 = \6.78

→ Therefore Bill's profit is: $\$10 - \$6.78 = \$3.22$