94:00

Quiz A for 2:30 Class: 03/25/13 Name Key

Notes: In solving the following I recommend setting up a table like we did in chapter 3, but this is not required. I also recommend that you think a little about the following information rather than starting by doing a bunch of calculations. All answers should be on a per-share basis. Use a "+" for an inflow and a "-" for an outflow. I will assume an inflow if no sign is given.

Based on the following information on Intel stock and options, 1) what set of transactions today will generate an arbitrage profit today, 2) what is your arbitrage profit today, 3) at expiration of the options, what are the cash flows on your individual positions and on your total portfolio if Intel's stock price a) rises to $25 per share and b) falls to $15 per share?

Strike price on options = $21; Expiration of options: 10/18/13 (207 days); Risk-free interest rate = 1.6%

	Bid	Ask
Stock	21.32	21.34
Call	1.35	1.39
Put	1.79	1.82

Wall Street Journal Questions are on the back of this page.

Note: call is in-the-money & put is out-of-the-money

⇒ call should be worth more than put

⇒ buy call & sell put

$\underbrace{S+P}_{sell} = \underbrace{C+PV(K)}_{buy}$

$PV(K) = \frac{21^{+2}}{(1.016^{+2})^{207/365^{+2}}} = 20.81$

Transactions (t=0)	CF0	CF1 25	CF1 15
+3 Short stock	+21.32 +2	-25 +2	-15 +2
+3 Sell put	+1.79 +2	∅ +3	-6 +3
+3 Buy call	-1.39 +2	+4 +3	∅ +3
+3 Buy bond	-20.81 6	+21 +2	+21 +2
Total	+0.91 +2	∅ +2	∅ +2