

Exchange traded Stock, Option and Bond

Limit and Market Order Questions

Question 1 (total of 21 marks): Below is a screenshot from E-Trade which shows details of CBA bank shares.

Question 1a (3 marks): What is the bid-ask spread on these shares?

Question 1b (3 marks): What is your best estimate of the 'true price' of these shares?

Question 1c (3 marks): What is the best price that you could **buy** one share when placing a market order?

Question 1d (3 marks): For how much money could you **sell 5,000** shares when submitting a market order? (Note that in this question you are selling, in the previous question, you were buying).

Question 1e (3 marks): What would be the **implicit cost** of **selling** these 5,000 shares using a market order, given your 'true price' answered above?

Question 1f (3 marks): List **one** advantage of a placing a limit order rather than a market order.

Question 1g (3 marks): List **two** disadvantages of a placing a limit order rather than a market order.

The screenshot shows the quote for CBA bank shares. The current price is \$90.580, with a bid of \$90.560 and an offer of \$90.580. The market depth table shows the following orders:

Buyers			Sellers		
No	Qty	Price	Price	Qty	No
	000's	(\$)	(\$)	000's	
7	0.613	90.560	90.580	4	3
7	0.409	90.550	90.590	0.115	2
13	6	90.540	90.600	9	8
10	4	90.530	90.610	2	8
3	0.815	90.520	90.620	17	10

Question 1 (total of 24 marks): Below is a screenshot from E-Trade which shows details of a call option on CBA bank shares. Note that the strike price is \$77.

CBAYB7 - \$77.00 CALL OPTION EXPIRING 30/10/2014

Underlying Security Details: CWLTH BANK FPO [CBA] (ASX:CBA) As of: 22/09/2014 12:29:34 PM

Last Price	Today's Change	Bid	Offer	Day High	Day Low	Volume
\$76.740	-\$1.070 (-1.38%)	\$76.720	\$76.740	\$78.030	\$76.710	1,401,402

Today's Last Price	1.48	Bid	1.260	Theo Price	1.338
Today's Change	-0.445 (-23.12%)	Offer	1.345	Days To Expiry	39
Open	1.55	Previous Close	1.6	Shares per Contract	100
Volume	40	Open Interest	592	Today's Range	1.48 - 1.55

As at 22/09/2014 12:29:35 PM

Buyers			Sellers	
Quantity	Price	#	Price	Quantity
150	1.260	1	1.345	150
100	1.255	2	1.350	100
100	1.200	3	1.455	100
100	1.150	4	1.500	100
100	1.110	5	1.545	100

Question 1a (3 marks): What is the bid-ask spread on these options?

Question 1b (3 marks): What is your best estimate of the 'true price' of these call options?

Question 1c (3 marks): What is the best price that you could **buy** one call option contract when placing a market order? Be aware that one call option contract is on 100 shares and prices are listed on a per-share basis rather than a per contract basis.

Question 1d (3 marks): How much money could you **sell** 200 call options for? (Note that in this question you are selling, in the previous question, you are buying).

Question 1e (3 marks): What would be the **implicit cost** of **selling** these 200 call options, given your 'true price' answered above?

Question 1f (3 marks): Is this call option 'in-the-money' or 'out-of-the-money'?

Question 1g (3 marks): The quantity demanded by the top 5 buyers equals the quantity supplied by the top 5 sellers. Will this always be the case?

Question 1h (3 marks): The CBA share price \$1.07 from the previous day, but the call option fell by \$0.445. Would you usually expect the value of the share to change by more than the value of the call option? Explain why or why not.

Question 1 (total of 15 marks): Below is a screenshot from E-Trade which shows details of BHP shares.

Quotes | **Market Depth**

BHP Billiton Limited (BHP) As at 22/04/2013 2:37:18 PM
Real-Time

(Trading Status: OPEN) [Set Alert](#) [Add to Watchlist](#)

Last Trade	Today's Change	Volume	Trades	Open	Today's High	Prev. Close	Today's Low	Trading Basis	
31.525	0.125 0.400%	3906832	14533	31.280	31.580	31.400	31.250	Normal	<input type="button" value="BUY"/> <input type="button" value="SELL"/>

[Live Quote](#) | [Market Depth](#) | [Charts](#) | [Interactive Charts](#) | [News](#) | [Company Profile](#) | [Recommendations](#)

Buyers				Sellers			Last 10 Trades			
No.	Quantity	Price	#	Price	Quantity	No.	Time	Price	Quantity	Mkt
16	2061	31.520	1	31.530	1407	13	02:37:18 PM	31.525	50	CXA
18	7275	31.510	2	31.540	8997	21	02:37:02 PM	31.525	2	CXA
15	9157	31.500	3	31.550	6168	15	02:36:58 PM	31.520	8	ASX
8	7077	31.490	4	31.560	18695	15	02:36:58 PM	31.520	31	ASX
7	9748	31.480	5	31.570	1902	3	02:36:58 PM	31.520	12	ASX
3	1977	31.470	6	31.580	7561	4	02:36:58 PM	31.520	76	ASX
5	2211	31.460	7	31.590	1798	3	02:36:58 PM	31.520	100	ASX
2	3010	31.450	8	31.600	7753	10	02:36:58 PM	31.520	240	ASX
1	2000	31.440	9	31.610	1035	2	02:36:58 PM	31.520	58	ASX
1	500	31.430	10	31.650	500	1	02:36:58 PM	31.520	38	ASX

More Research: ▼

Question 1a (3 marks): What is the bid-ask spread on these shares?

Question 1b (3 marks): What is your best estimate of the 'true price' of these

Question 1c (3 marks): What is the best price that you could **buy** one share when placing a market order?

Question 1d (3 marks): How much money could you **sell 5,000** shares for? (Note that in this question you are selling, in the previous question, you were buying).

Question 1e (3 marks): What would be the **implicit cost** of **selling** these 5,000 shares using a market order, given your 'true price' answered above?

Question 1 (total of 20 marks):

The next few questions relate to the data below which is a screenshot from the broking platform ETRADE showing the market depth for BHP call options. (8 marks)

BHPUJ8 - **\$35.00 CALL OPTION** EXPIRING 25/07/2013 As of: 22/04/2013 2:34:16
Underlying Security Details: BHP BLT FPO [BHP] PM
 (ASX:BHP)

Last Price	Today's Change	Bid	Offer	Day High	Day Low	Volume
\$31.530	\$0.130 (.41%)	\$31.520	\$31.530	\$31.580	\$31.250	3,891,894

Today's Last Price	0.75	Bid	0.390	Theoretical Price	0.439
Today's Change	0.34 (82.93%)	Offer	0.430	Days To Expiry	95
Open	0	Previous Close	0	Shares per Contract	100
Volume	0	Open Interest	474	Today's Range	0 - 0

As at 22/04/2013 2:34:16 PM

Buyers		#	Price	Sellers	
Quantity	Price			Quantity	
30	0.390	1	0.430	30	
20	0.0380	2	0.450	10	
0	0.000	3	0.000	0	
0	0.000	4	0.000	0	
0	0.000	5	0.000	0	

Question 1a (2 marks): Of the 3 choices below, where each is in bold, circle the correct answer:

The call option is **in** the money, **at** the money, or **out** of the money.

Question 1b (4 marks): ETRADE calculates the theoretical option price to be \$0.439. In their FAQ they state that the theoretical option price is only a guide, but that it is calculated using the Black-Scholes option pricing equation. In one sentence, explain whether the estimated theoretical option price looks reasonable.

Question 1c (4 marks): What is the intrinsic value of this call option?

Question 1d (4 marks): What is the breakeven price of this call option?

Question 1e (6 marks): A trader is planning to buy 35 of the above call options by submitting a market order. Ignoring broking fees, what will be the total cost of her purchase?

Question 1 (total of 12 marks): On the right is a screenshot from E-Trade which shows the market depth for Heritage Notes (ticker: HBSHA).

Question 1a (3 marks): What is the bid-ask spread on these notes?

Question 1b (3 marks): What is your best estimate of the 'true price' of these notes?

Question 1c (3 marks): What is the best price that you could buy **one** Heritage Note when placing a market order?

Quote [Find Code](#)

HBSHA **QUOTE**

Quick Quote

HERIT BANK 10MTH19
[HBSHA] (ASX:HBSHA)

Price	Today's Change	
\$108.600	\$.100	.09 %
Bid \$108.550	Offer \$108.600	

[Hide Market Depth](#)

at 10/10/2012 05:34:57 PM

Buyers			Sellers		
No	Qty 000's	Price (\$)	Price (\$)	Qty 000's	No
1	0.15	108.550	108.600	0.094	1
1	0.2	108.510	109.000	0.2	1
3	0.434	108.500	109.200	0.374	1
1	0.225	107.800	110.499	0.415	1
1	0.05	107.750	110.500	1	1

[View Full Market Depth](#)

Question 1d (3 marks): How much would it cost to buy 200 notes, excluding transaction costs?