










		Subject	Started by	Replies	Views	Last post ▾
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		Foundations of Options Exercise One	hapi2lips	2	205	February 24, 2010, 12:30:46 PM by Ri\$k Doctor 
		Comparing 5 SPY Trades	Ri\$k Doctor	3	414	December 07, 2009, 07:37:49 PM by Ri\$k Doctor 
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		Transcript 052109	Ri\$k Doctor	0	191	May 23, 2009, 08:13:38 PM by Ri\$k Doctor 
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		Unedited Transcript 051109	Ri\$k Doctor	0	135	May 12, 2009, 11:22:26 AM by Ri\$k Doctor 
		Unedited Transcript 050409	Ri\$k Doctor	1	150	May 11, 2009, 11:48:55 AM by Ri\$k Doctor 
		Study Materials	Ri\$k Doctor	0	743	April 28, 2009, 04:04:02 AM by Ri\$k Doctor 



Author	
<div>hapi2lips RDCC Newbie ★ Posts: 28</div> <div></div>	<div>Foundations of Options Exercise Two « on: February 24, 2010, 10:59:03 AM » Just a couple of minor questions with this exercise. The answer for question 50 is b. the most difficult side.....when legging into the first side of a spread. What do you mean by 'most difficult'? Also, I think there is a typo in the answer to question 54 b. which should be 16.10 and 26.55</div>
<div>Ri\$k Doctor Administrator Hero Member ★★★★★ Posts: 3249</div> <div></div>	<div>Re: Foundations of Options Exercise Two « Reply #1 on: February 24, 2010, 12:41:59 PM » Thanks again. The Corrected Key is now posted now. Quote The answer for question 50 is b. the most difficult side.....when legging into the first side of a spread. What do you mean by 'most difficult'? When legging, you can always do the 'easy side' so save it until you 'need' it. Imagine doing the easy side first and then trying to get the hard side. Perhaps you won't get it at an attractive price or even worse, the market moves against you and now you are stuck crossing your fingers and chasing, an already hard to fill option. The final price can be devastating. A least if you get the hard one first, and the market moves against you, you can easily get the other side although perhaps a little against you. It is also kind of a waste if you got the easy side first, and missed the hard one, probably requiring you liquidate the first leg at a loss, abandoning the trade, all together.</div>
<div>hapi2lips RDCC Newbie ★ Posts: 28</div> <div></div>	<div>Re: Foundations of Options Exercise Two « Reply #2 on: February 28, 2010, 06:55:11 PM » Agree and appreciate your thoughts here, but your comment about liquidity and ease of getting filled when legging into the 'most difficult' side is what clarified my question. Thank you. Now, on to Exercise Three.</div>

Ri\$k Doctor Forums



Author		Topic: Foundations of Options Exercise One (Read 206 times)	
<div><div>hapi2lips</div><div>RDCC</div><div>Newbie</div><div>★</div><div>Posts: 28</div></div> <div><div><div><div></div><div></div><div></div></div></div></div>	<div><div>Foundations of Options Exercise One</div><div>« on: February 22, 2010, 08:27:44 PM »</div><div>Seemed to have answered Questions 16 and 17 incorrectly. In question 16, "Long calls are usually spread against ____individually." where the correct answer is a. "long stock", my response was b. short stock and f. short calls. Similarly for question 17, "Short puts...against ____individually", my response was using similar logic with b. short stock and f. long puts. What am I not understanding here?</div></div> <div>Teri</div>		
<div><div>hapi2lips</div><div>RDCC</div><div>Newbie</div><div>★</div><div>Posts: 28</div></div> <div><div><div><div></div><div></div><div></div></div></div></div>	<div><div>Re: Foundations of Options Exercise One</div><div>« Reply #1 on: February 24, 2010, 10:12:18 AM »</div><div>Charles,</div><div>Thanks for correcting the Answer Key. I still missed part of 16 i.e. hedging long calls with long puts, which would result in a position with limited risk and unlimited gain potential in either direction. However, in 17 by hedging the short put with a short call would result in just the opposite position, i.e. limited gain and unlimited loss potential. Wouldn't this need to be hedged in turn.....perhaps with a long strangle turning it into some sort of wing spread?</div></div> <div>Teri</div>		
<div><div>Ri\$k Doctor</div><div>Administrator</div><div>Hero Member</div><div>★★★★★</div><div>Posts: 3249</div></div> <div><div><div><div></div><div></div><div></div></div></div></div>	<div><div>Re: Foundations of Options Exercise One</div><div>« Reply #2 on: February 24, 2010, 12:30:46 PM »</div><div>Thanks. The Corrected Key is now posted now.</div><div>Quote</div><div>Wouldn't this need to be hedged in turn.....perhaps with a long strangle turning it into some sort of wing spread?</div><div>You are correct but the question was about general 'spreading' and not necessarily about being 'totally hedged'.</div></div> <div></div>		

Author

Ri\$k Doctor

Administrator

Hero Member



Posts: 3249



Comparing 5 SPY Trades

« on: May 11, 2009, 11:17:52 AM »

We are going to compare how several Bullish Trades compare, Starting with the SPY Option Chain on May 4th:

SPY														
XYZ QUOTE CHART OPTIONS														
Call/Put Strikes 6 Near 93 Ascending														
SPDR LARGCAP ETF														
90.88 +2.99 +3.40%														
May09 Jun09 Jun09 Jul09 Sep09 Sep09 Dec09 Dec09 Mar10 Mar10 Dec10														
Mark	Mark Chg	Delta	Gamma	Theta	Vega	Imp Vol	STRIKES	Mark	Mark Chg	Delta	Gamma	Theta	Vega	Imp Vol
CALLS							Jun09 (47 days)	PUTS						
4.40	+1.275	0.5425	0.0380	-0.0439	0.1288	31.88%	90.0	3.975	-1.425	-0.4578	0.0368	-0.0448	0.1288	32.89%
3.85	+1.16	0.5132	0.0390	-0.0435	0.1300	31.33%	91.0	4.40	-1.575	-0.4864	0.0381	-0.0441	0.1300	32.06%
3.325	+1.04	0.4845	0.0399	-0.0425	0.1299	30.61%	92.0	4.875	-1.70	-0.5143	0.0389	-0.0432	0.1299	31.42%
2.845	+0.925	0.4531	0.0403	-0.0412	0.1285	29.98%	93.0	5.425	-1.80	-0.5438	0.0389	-0.0423	0.1287	31.13%
2.405	+0.81	0.4194	0.0401	-0.0396	0.1256	29.47%	94.0	6.025	-1.90	-0.5754	0.0385	-0.0410	0.1262	30.78%
2.025	+0.71	0.3839	0.0394	-0.0376	0.1214	29.00%	95.0	6.675	-1.975	-0.6069	0.0375	-0.0407	0.1213	31.11%

- Scenario 1: Buying 1000 Shares @ 90.88
- Scenario 2: Buying 19 JUN 91 Calls @ 3.85
- Scenario 3: Shorting 21 JUN 91 Puts @ 4.40
- Scenario 4: Buying 63 JUN 90/95 Call Verticals @ 2.37
- Scenario 5: Buying 172 JUN 90/92 Call Verticals @ 1.07

SPY Option Chain on May 11th:

SPY														
XYZ QUOTE CHART OPTIONS														
Call/Put Strikes 6 Near 93 Ascending														
SPDR LARGCAP ETF														
91.67 -1.31 -1.41%														
May09 Jun09 Jun09 Jul09 Sep09 Sep09 Dec09 Dec09 Mar10 Mar10														
Mark	Delta	Gamma	Vega	Theta	Open Interest	STRIKES	Mark	Delta	Gamma	Vega	Theta	Open Interest		
CALLS						Jun09 (40 days)	PUTS							
4.525	0.5687	0.0405	0.1179	-0.0469	135,415	90.0	3.15	-0.4308	0.0403	0.1179	-0.0467	122,603		
3.925	0.5357	0.0421	0.1201	-0.0467	60,279	91.0	3.575	-0.4643	0.0418	0.1201	-0.0466	26,365		
3.375	0.5039	0.0433	0.1210	-0.0461	47,683	92.0	4.025	-0.4952	0.0429	0.1210	-0.0462	23,117		
2.87	0.4722	0.0442	0.1205	-0.0448	51,301	93.0	4.575	-0.5266	0.0428	0.1190	-0.0470	7,304		
2.415	0.4365	0.0442	0.1184	-0.0432	43,839	94.0	5.125	-0.5602	0.0429	0.1186	-0.0443	10,173		
2.005	0.3981	0.0437	0.1147	-0.0410	65,677	95.0	5.725	-0.5966	0.0423	0.1153	-0.0424	23,317		

Running P&L:
Scenario 1: Buying 1000 Shares: Up \$790
Scenario 2: Buying 19 JUN 91 Calls: Up \$152
Scenario 3: Shorting 21 JUN 91 Puts @ \$1722
Scenario 4: Buying 63 JUN 90/95 Call Verticals: Up \$1134
Scenario 5: Buying 172 JUN 90/92 Call Verticals Up \$1376
Here is a Comparison of Verticals (with un adjusted prices):

5 Strike	4 Strike	3 Strike	2 Strike	1 Strike		SPY		1 Strike	2 Strike	3 Strike	4 Strike	5 Strike
Verticals	Verticals	Verticals	Verticals	Verticals	Calls	90.88	Puts	Verticals	Verticals	Verticals	Verticals	Verticals
					4.40	90	3.95					
				0.55				0.45				
			1.07		3.85	91	4.40		0.93			
		1.55		0.52				0.48		1.48		
	2.00		1.00		3.33	92	4.88		1.03		2.08	
2.35		1.45		0.48				0.55		1.63		2.73
	1.80		0.93		2.85	93	5.43		1.15		2.28	
		1.28		0.45				0.60		1.80		
			0.80		2.40	94	6.03		1.25			
				0.35				0.65				
					2.05	95	6.68					
5 Strike	4 Strike	3 Strike	2 Strike	1 Strike		SPY		1 Strike	2 Strike	3 Strike	4 Strike	5 Strike
Verticals	Verticals	Verticals	Verticals	Verticals	Calls	91.68	Puts	Verticals	Verticals	Verticals	Verticals	Verticals
					4.53	90	3.15					
				0.60				0.43				
			1.15		3.93	91	3.58		0.88			
		1.66		0.55				0.45		1.43		
	2.11		1.06		3.38	92	4.03		1.00		1.98	
2.53		1.51		0.51				0.55		1.55		2.58
	1.93		0.96		2.87	93	4.58		1.10		2.15	
		1.38		0.45				0.55		1.70		
			0.87		2.42	94	5.13		1.15			
				0.42				0.60				
					2.00	95	5.73					

Ri\$ Doctor
Administrator
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★★★★★
Posts: 3249



Comparing 5 SPY Trades

« **Reply #1 on:** May 18, 2009, 11:56:23 AM »

SPY Option Chain on May 18th @ 2:40 pm CST (Exact same SPY price when we started 2 weeks ago)

SPY

XYZ
+1.21

QUOTE

CHART

OPTIONS

Call/Put

Strikes6

Near93

Ascending

SPDR LARGCAP ETF

90.88

+2.17

+2.45%

Open

High

Low

Close

52 Wk Price

89.55

90.89

88.570

88.71

67.10 - 144.30

Bid

Ask

Size

Volume

90.88

90.89

110x65

179m

Current IV

IV Change

52 Wk HV

27.87%

-2.33%

12.11% - 65.47%

Jun09

Jun09

Jul09

Aug09

Sep09

Sep09

Dec09

Dec09

Mar10

Mar10

Dec10

Mark

Delta

Gamma

Bid

Vega

Theta

Imp Vol

STRIKES

Mark

Delta

Gamma

Bid

Vega

Theta

Imp Vol

CALLS

Jun09 (33 days)

PUTS

3.375

0.5472

0.0516

3.35

0.1076

-0.0458

27.94%

2.815

0.5076

0.0533

2.81

0.1090

-0.0454

27.39%

2.295

0.4678

0.0547

2.29

0.1084

-0.0437

26.52%

1.855

0.4228

0.0543

1.85

0.1056

-0.0418

26.03%

1.475

0.3761

0.0524

1.47

0.1008

-0.0395

25.75%

1.135

0.3242

0.0502

1.13

0.0937

-0.0356

24.97%

90.0

2.815

-0.4536

0.0499

2.81

0.1077

-0.0470

28.91%

3.275

-0.4918

0.0512

3.25

0.1090

-0.0468

28.50%

3.825

-0.5282

0.0510

3.80

0.1085

-0.0466

28.47%

4.375

-0.5704

0.0511

4.35

0.1061

-0.0444

27.78%

5.025

-0.6125

0.0493

5.00

0.1021

-0.0427

27.75%

5.725

-0.6554

0.0468

5.70

0.0967

-0.0402

27.66%

Running P&L:
Scenario 1: Buying 1000 Shares: Unchanged
Scenario 2: Buying 19 JUN 91 Calls: Down \$1966.50
Scenario 3: Shorting 21 JUN 91 Puts Up \$2362.50
Scenario 4: Buying 63 JUN 90/95 Call Verticals: Down \$819
Scenario 5: Buying 172 JUN 90/92 Call Verticals Up \$172

<!--EDIT|Ri\$k Doctor|1242680156-->

rpex
Newbie
★
Posts: 3



Re: Comparing 5 SPY Trades

« Reply #2 on: December 01, 2009, 04:19:44 AM »

This is a really stupid question, because i think you answered it in the video, (but i can't seem to find the place again)

I understand that over the full time period the short 91 puts outperformed the long 91 calls, because of the opposite theta positions and the lower implied volatility, but in the first section from May 4th to May 11th why did the short puts outperform the long calls by such an overwhelming margin?

Thanks

Ri\$k Doctor
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Re: Comparing 5 SPY Trades

« Reply #3 on: December 07, 2009, 07:37:49 PM »

That is not a stupid question. The stock rallied .79 and the (C-P) combo synthetic stock rallied .90 (-.55 to +.35). .01 rounding here and there.
The Call was up .07 (basically up .40ish because of the delta less .33 because of theta and a little vega).
The Put was down .82 (basically down 40ish because of the delta and down another .33 because of theta and a little vega. The combo (or basis changed by another .09 on the put side, for whatever reason). There is only 19 calls versus 21 puts so the major difference is a swing of .75 (.07 vs. .82) about 19 times plus the extra 2 puts. Roughly speaking \$1425 + \$164 = \$1589.

Ri\$k Doctor Forums	
Author	
<div><div>Ri\$k Doctor</div><div>Administrator Hero Member</div><div><div>★★★★★</div></div><div>Posts: 3249</div></div>	<div><div>Homework and Exercises</div><div>« on: April 28, 2009, 05:20:58 AM »</div><div>RD Exercises One</div></div> <div>RD Exercises One Key Corrected #16 and #17 as of 02/23/10</div>
<div><div>Ri\$k Doctor</div><div>Administrator Hero Member</div><div><div>★★★★★</div></div><div>Posts: 3249</div></div>	<div><div>Homework and Exercises</div><div>« Reply #1 on: May 10, 2009, 09:57:37 PM »</div><div>RD Exercises Two</div></div> <div>RD Exercises Two Key Corrected #54b as of 02/24/10</div>
<div><div>Ri\$k Doctor</div><div>Administrator Hero Member</div><div><div>★★★★★</div></div><div>Posts: 3249</div></div>	<div><div>Homework and Exercises</div><div>« Reply #2 on: May 17, 2009, 07:05:47 PM »</div><div>RD Exercises Three Corrected Questions #59 and 67 as of 03/01/10</div></div> <div>RD Exercises Three Key</div>
<div><div>Ri\$k Doctor</div><div>Administrator Hero Member</div><div><div>★★★★★</div></div><div>Posts: 3249</div></div>	<div><div>Homework and Exercises</div><div>« Reply #3 on: May 25, 2009, 07:36:03 PM »</div><div>Es asks about:Homework Three #71. The value of the CMC JUL 40/45 call vertical is 2.75 and 1.90 for the 45/50 call vertical. What would be the total value of 10 JUL 40/45/50 call butterflies?</div><div>I have tried to arrive at the answer (\$850) given in the key.</div><div>How did you arrive at the figure given?</div><div>Thanks Ed</div></div>
<div><div>Ri\$k Doctor</div><div>Administrator Hero Member</div><div><div>★★★★★</div></div><div>Posts: 3249</div></div>	<div><div>Homework and Exercises</div><div>« Reply #4 on: May 25, 2009, 07:36:42 PM »</div><div>2.75 minus 1.90 =.85 or \$85 per butterfly spread because .85 is multiplied by 100 shares. Then it is because there are 10 butterflies, it comes to \$850.</div></div>
<div><div>edsyl</div><div>Newbie</div><div><div>★</div></div></div>	<div><div>Homework and Exercises</div><div>« Reply #5 on: May 26, 2009, 05:32:23 AM »</div><div>Thanks.</div></div>
Posts: 26	<div><div>I kept looking at this the wrong way. I kept thinking that given the prices I could work back and get the value of the puts sold at 45. But once I read your answer I realized that the debit from the bull minus the credit for the bear spread would of course give the value of the butterfly. Correct?</div><div>Strange that this is the only question that gave me issues.</div><div>Regards Ed</div></div>
<div><div>Ri\$k Doctor</div><div>Administrator Hero Member</div><div><div>★★★★★</div></div><div>Posts: 3249</div></div>	<div><div>Homework and Exercises</div><div>« Reply #6 on: May 26, 2009, 08:13:57 AM »</div><div>Yes, correct and observing the option chains, vertical to vertical, aids in the decision making process.</div></div>



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Transcript 052109

« **on:** May 23, 2009, 08:13:38 PM »

[3:02 pm]-William McCoy:we get a semi-private lessso
[4:08 pm]-david steele:Great webinar. Unfortunately this was the first one I saw. Is there and archive of parts 1,2,3?
[4:11 pm]-jimi Odeyemi:Thanks
[4:11 pm]-Charles Cottle:1,2,3 @ riskdoctor.com. Join the Free Forum

<div><div><div>xcceIr8</div><div>Guest</div></div></div>	<div><div><div>Vertical Spreads</div><div>« on: May 12, 2009, 05:05:02 PM »</div></div><div>Hi Charles,</div><div></div><div>I feel that I have a good understanding of how to create an opening vertical spread trade. The problem I have is that most information I have read about vertical spreads (multiple leg spreads in general) is that the educators do not explain exactly how to close out the spread? Do you typically reverse your positions before expiration? if so is there an order in which you would close your positions? If you dont close prior to expiration then what? Do you just let them expire and collect the premium if they expire ITM? Are you ever obligated to buy or sell when you hold Veritcal Spread? I just dont feel I have a good handle on how to close a spread and this is making it difficult for me to make my first Vertical Spread trade. Thanks in advance for your opinions!</div><div>PJM.</div></div>
<div><div><div><div>Ri\$k Doctor</div><div>Administrator</div><div>Hero Member</div><div>★★★★★</div><div>Posts: 3249</div></div><div><div><div><div><div></div></div><div><div></div></div><div><div></div></div></div></div></div></div></div>	<div><div><div>Vertical Spreads</div><div>« Reply #1 on: May 14, 2009, 06:04:48 AM »</div></div><div>QUOTE</div><div>...explain exactly how to close out the spread?</div><div></div><div>These are great questions. We will take them one at a time but realize, first, that one size does not fit all....all traders will not act in the same way...there is no right or wrong...what is prudent for one trader based on their opinion can be un prudent for another with a different opinion.</div><div>QUOTE</div><div>Do you typically reverse your positions before expiration? if so is there an order in which you would close your positions?</div><div>It is time to get out of a bull vertical, for example, when any of the following occur;</div><div>1) the trader is no longer bullish.</div><div>2) the trade has made an acceptable amount of profit.</div><div>3) the trade has reached the threshold of pain and liquidated at the predetermined level of loss.</div><div>4) the original bullish reasons have faded away (no longer bullish).</div><div>5) risk/reward of the spread (AT CURRENT PRICE) no longer attractive to the trader.</div><div></div><div>Reversing that bull spread? Yes, only if bearish, first of all. Keep in mind that a vertical's characteristics change over time, implied volatility fluctuations and underlying price fluctuation, unlike reversing a futures trade from long to short. Therefore, it is rare to get out of a bull spread with certain strikes and go short the same one. Rather, it is liquidated* and a different bear spread is chosen to initiate based on brand new entry criteria being met.</div><div>QUOTE</div><div>If you don't close prior to expiration then what? Do you just let them expire and collect the premium if they expire ITM?</div><div>Depends how far the vertical (say a call vertical) is ITM and how cheap some of the closer puts are to perhaps buy as protection (slingshotting the synthetic short OTM put vertical) locking in the gains.</div><div>QUOTE</div><div>Are you ever obligated to buy or sell when you hold Vertical Spread?</div><div>You would be obligated to deliver the underlying** on the short leg if ITM but would receive delivery if your long was also ITM. In between, you would have other actions to take.</div><div></div><div>Wait! There's more. Many traders choose to Butterfly-Off or Condorize the vertical by selling a further out vertical. Unfortunately, some folks do this with limited consciousness; they do it just to complete the butterfly for free or for a credit. What they are missing is the fact that the butterfly position might not be warranted based on market behavior or opinion. The butterflying would only be consistent with good trading rules if the current price of the butterfly is an attractive trade based upon market outlook and only worth adjusting into the butterfly if the butterfly were worth initiating at current price levels on its own merit.</div><div></div><div>*or boxed off.</div><div>**unless it is a European Style Cash Settlement.</div></div>
<div><div><div>eejiofor</div><div>Members</div><div>Newbie</div><div>★</div><div>Posts: 8</div></div><div><div><div><div><div></div></div><div><div></div></div><div><div></div></div></div></div></div></div>	<div><div><div>Vertical Spreads</div><div>« Reply #2 on: May 19, 2009, 08:01:28 AM »</div></div><div>Charles,</div><div></div><div>If you dont mind, could you spend some time on Thursday, May 21st, 2009 to discuss about when to close or adjust your position once you have it on. How to adjust your existing position the Charles Cottle way. I am really fascinated by your webinars and your style of trading.</div><div></div><div>Thanks</div></div>
<div><div><div><div>Ri\$k Doctor</div><div>Administrator</div><div>Hero Member</div><div>★★★★★</div><div>Posts: 3249</div></div><div><div><div><div><div></div></div><div><div></div></div><div><div></div></div></div></div></div></div></div>	<div><div><div>Vertical Spreads</div><div>« Reply #3 on: May 21, 2009, 03:22:50 PM »</div></div><div>I addressed this in the Video on May 21st, 2009</div></div>



[2:46 pm]-Aws Muhsin:hello everybody

[2:46 pm]-Aws Muhsin:welcome to this presentation :)
[2:53 pm]-jerry caldwell:thank you
[2:55 pm]-Shirley Sun:can we listen to this again with slide packs.
[2:56 pm]-Foon CHung:y
[2:56 pm]-Justin Janisch:y
[2:56 pm]-Brian Harris:y
[2:57 pm]-Aws Muhsin:y
[2:57 pm]-Shirley Sun:y
[2:57 pm]-LaDaine Wandell:y
[2:57 pm]-Aws Muhsin:is it only me here!
[2:57 pm]-Cathy Priest:loud and
[3:01 pm]-Cathy Priest:hum in background
[3:04 pm]-LaDaine Wandell:there is a high picked howel almost overriding your mic!
[3:27 pm]-Jeff Wyle:where can we find this chart in riskdoctor.com/forums where do we find it there?
[3:29 pm]-Jeff Wyle:Are we better off to sticking with the one's that equal 1.00 and staying away from the ones that don't line up?
[3:33 pm]-Manny Ejiofor:y
[3:34 pm]-Manny Ejiofor:Yes you did charles
[3:34 pm]-Andre Parente:no
[3:34 pm]-Brian kiwanuka:can you go over it again
[3:35 pm]-LaDaine Wandell:where do we find your radio show?
[3:36 pm]-Andre Parente:So a Butterfly is similar to an Iron Condor, but if you expire near the strike price, it's more profitable?
[3:39 pm]-Raul Garcia:I cant see the diagrams.
[3:40 pm]-Andre Parente:So a Butterfly is similar to an Iron Condor, but if you expire near the strike price, it's more profitable?
[3:42 pm]-Raul Garcia:Is there anything I can do to refresh the page so that I can see the diagrams?
[3:43 pm]-Sarah Heller:yes raul, you can refresh the page with the blue refresh button at the top (right of the "fit to screen" button)
[3:44 pm]-Raul Garcia:It say's Exit room. Should I press that one, will I be able to came back in?
[3:45 pm]-Sarah Heller:no, different button...its lower and it had arrows to "refresh"
[3:47 pm]-Raul Garcia:I don't have the refresh button. My computer is a mac I don't know if that has anything to do with it.
[3:49 pm]-Greg Richmond:vertical?
[3:52 pm]-Raul Garcia:If I go out of the room can I can back in? I want to try that to see if I can see the images.
[3:54 pm]-Richard Salkind:not 100K...200K maybe :-)
[3:56 pm]-John Dori:But you wouldn't triple your money with one of those moves unless you were at expiration, right?
[3:56 pm]-Raul Garcia:If I leave the room can I come back in?
[3:58 pm]-Sarah Heller:If you leave the room you won't be able to come back in but these webinars are archived on the risk doctor website
[3:59 pm]-Pete Meke:Hi Charles, do you typically hold a vertical spread until expiration? or reverse position somewhere before expiration?
[4:02 pm]-eric bell:Thanks for session #3 - have to go. Bye.
[4:07 pm]-Gary Moore:Thanks Really great class!!!!!!
[4:07 pm]-Aws Muhsin:I just signed to the risk doctor
[4:07 pm]-LaDaine Wandell:is there a special address for the risk doctor?
[4:08 pm]-Aws Muhsin:but never get the confirmation email?
[4:08 pm]-Tim Mac:Hi Charles - next time could you please review which spreads are the best to trade (ie how large of a spread, how it compares to the underlying, etc.). Thanks again for a great webinar!
[4:08 pm]-Greg Richmond:thank you
[4:08 pm]-Cathy Priest:Thank you for the great presentation!
[4:08 pm]-Donna Ribecchi:Thanks!
[4:09 pm]-Sarah Heller:www.trademonster.com
[4:09 pm]-Jeff Wyle:Sarah, how do i set up a paper trading account on trademonster?

[4:10 pm]-Jeff Wyle:I tried setting one up but only saw where you do a regular account and I want to only try paper trading first?
[4:12 pm]-Ted Stefaniak:What can I read so I can learn really basic info on options?

Ri\$k Doctor

Administrator

Hero Member



Posts: 3249



Unedited Transcript 050409

« on: May 11, 2009, 11:42:58 AM »

[2:46 pm]-Charles Cottle: [Exercises and Answer Key](#)

[2:51 pm]-Brenda Grzetic:thankyou

[2:52 pm]-Cathy Priest:Where on the forum once you get there are the answers found?

[2:54 pm]-mike avery:Hello, will you be covering option selection for bull puts, such as strong support/.20 delta, etc? any suggestions for scanners for this? th

[2:55 pm]-Thom Turcotte:Hello ready for round two

[2:56 pm]-Charles Cottle:Mike: Are you talking about shorting Puts with a 20 delta, where the strike price is at a support level with that put being .20?

[2:56 pm]-Jeane Barrett:thanks glad to be on board...

[2:56 pm]-Charles Cottle:Cathy Priest: Same Place

[2:57 pm]-calvin nicholls:hi - pen poised ready to roll

[2:57 pm]-Dan Brown:Mike Graf

[2:57 pm]-Mike Graf:Hi Dan

[2:58 pm]-Dan Brown:I have been e-mailing back and forth with Dan Sheridan regarding the option monster or trade monster seminar I attended on April 17th

[2:59 pm]-Gary Moore:Hi Guys!!!!!!!!!!

[2:59 pm]-Dan Brown:We were supposed to get four or five trading ideas to practice with and Dan indicated they were coming from you.

[2:59 pm]-mike avery:i'm referring to a spread where the short put is at a strong support level and the corresponding delta is around a .20.

[2:59 pm]-Pete Meke:y

[2:59 pm]-mike avery:y

[2:59 pm]-calvin nicholls:y

[2:59 pm]-Giulio Galassi:Y

[2:59 pm]-Gary Moore:y

[2:59 pm]-Dan Brown:y

[2:59 pm]-Thom Turcotte:y

[2:59 pm]-robert bonanno:y

[2:59 pm]-Donnie Hill:y

[2:59 pm]-RA Ar:y

[2:59 pm]-Dan Brown:can we talk afterwards?

[3:01 pm]-Dan Brown:thanks mike

[3:03 pm]-Lorie Lindsey:Is there a phone number to connect to? Can get any sound...

[3:03 pm]-Gareth Ryan:no sound

[3:03 pm]-Lorie Lindsey:can't get sound...

[3:03 pm]-Robert Z Cashman:I can't hear you well. There is a buzz in the background...

[3:04 pm]-Henry Sherwood:ok but buzzes

[3:04 pm]-Gareth Ryan:no sound

[3:04 pm]-Mike Graf:volume control in left panel

[3:04 pm]-Lorie Lindsey:Volume is up -- no sound

[3:04 pm]-Robert Z Cashman:still buzzing

[3:04 pm]-Brenda Grzetic:can't hear anything vol control doesn't help

[3:04 pm]-Richard Salkind:I hear a buzz too

[3:05 pm]-Gareth Ryan:vol up to max but still no sound

[3:05 pm]-earl jordan:loud noise-hard to hear

[3:06 pm]-Lorie Lindsey:still no sound

[3:06 pm]-Stan Silverman:Getting load hum in background.

[3:06 pm]-Ed Dupuis:dynamo hum

[3:06 pm]-Jeff Wyle:I hear hum as well

[3:07 pm]-Robert Z Cashman:no

[3:07 pm]-Jeff Wyle:no

[3:07 pm]-Debra Severson:n

[3:07 pm]-Ed Dupuis:just go

[3:07 pm]-Robert Z Cashman:still hummin

[3:07 pm]-Mike Graf:one moment all

[3:07 pm]-Art Diamond:no

[3:07 pm]-eric bell:BTW - I have sound

[3:07 pm]-Michael DiPronio:mine sounds OK

[3:07 pm]-Mike Graf:be right back

[3:07 pm]-Henry Sherwood:mike sounds perfect

[3:07 pm]-John Dori:Ed, Zappa fan?
[3:07 pm]-praveen gattu:no hum now
[3:07 pm]-Dan Brown:no humming here maybe interference with your puter from and external source like a phone
[3:08 pm]-calvin nicholls:my sound is fine
[3:08 pm]-Joe Kurlak:Music coming thru fine
[3:08 pm]-Robert Z Cashman:I LOVE THIS MUSIC!!! WHERE CAN I BUY IT?
[3:08 pm]-Lorie Lindsey:nothing coming through here
[3:08 pm]-Richard Salkind:I hear the music fine
[3:08 pm]-Gareth Ryan:no sound
[3:08 pm]-Richard Salkind:but when they were on I heard a buzz
[3:08 pm]-Robert Z Cashman:Anyone know what music this is?
[3:09 pm]-Dan Brown:Option Monster theme song?
[3:09 pm]-Robert Z Cashman:is that what this is?
[3:09 pm]-Harish Kambeyanda:Is this Yanni?
[3:09 pm]-Dan Brown:not enough sax
[3:09 pm]-Robert Z Cashman:yeah, when the curtain is down, the music playing... I love it! Any idea what this is?
[3:09 pm]-Bill Blount:when is the curtain going up?
[3:10 pm]-cheri santay>Hello all..
[3:10 pm]-Jeane Barrett:sounds like Yanni
[3:10 pm]-Joe Kurlak:None of us get enough, Dan
[3:10 pm]-Robert Z Cashman:ok, better.
[3:10 pm]-Richard Salkind:buzz gone
[3:10 pm]-Gareth Ryan:no sound
[3:10 pm]-cheri santay:echo..
[3:10 pm]-Robert Z Cashman:there *is* an echo though.
[3:10 pm]-Robert Z Cashman:ok, echo went away.
[3:10 pm]-cheri santay:its better now..
[3:10 pm]-Lorie Lindsey:going to try shutting down and starting over... still nuttin'
[3:11 pm]-Debra Severson:sounds good
[3:11 pm]-earl jordan:loud noise
[3:18 pm]-Richard Salkind:how do I get to use the paper account? Do I have to pay anything?
[3:18 pm]-Mike Graf:No, Richard, it is free
[3:18 pm]-Mike Graf:sut visit www.trademonster.com and click on the Papertrade ad
[3:18 pm]-Henry Sherwood:Is that where the forum is where the previous seminar can be found?
[3:20 pm]-Cathy Priest:I have to leave at 4:30 for the dentist. When and where will this seminar be posted? Thanks!
[3:22 pm]-cheri santay:is there a set time that this errodes at... is that per day or is it based on the vix
[3:22 pm]-Al Shapiro:over what period of time does it theata decay?
[3:23 pm]-Ed Dupuis:'2tillexpiration per day
[3:23 pm]-Ed Dupuis:as shown theta increase closer too expiration
[3:25 pm]-Wingho Liu:im late to this.. anyway i can view archeive?
[3:26 pm]-Henry Sherwood:There is but for now they aren't saying
[3:27 pm]-Henry Sherwood:you've only missed theta
[3:27 pm]-Mike Graf:There will be an archive on the RiskDoctor site
[3:27 pm]-Henry Sherwood:THnx
[3:27 pm]-Mike Graf:Charles will make this avaiable to you
[3:27 pm]-Wingho Liu:hm.. mind sending me the link?
[3:28 pm]-Wingho Liu:i also missed the first part of this the other day : (
[3:28 pm]-Scott Neal:For those of you were unable to attend, you may dowlod the webinar here:<http://www.riskdoctor.com/cgi-bin/forum/ikonboard.cgi?act=ST;f=5;t=1201>
[3:28 pm]-Ed Dupuis:<http://www.riskdoctor.com/cgi-bin/forum/ikonboard.cgi?act=SF;f=52>
[3:29 pm]-gilbert wong:my audio drops for a few seconds and then returns, is anyone else having the same issue?
[3:29 pm]-Scott Neal>Please go to the following link in order to view or download the .pdf exercises:<http://www.riskdoctor.com/cgi-bin/forum/ikonboard.cgi?act=ST&f=52&t=1203&st=&&#entry7020>
[3:29 pm]-Wingho Liu:i just click on both links.. and whats my username and password
[3:29 pm]-Wingho Liu:etc
[3:29 pm]-Scott Neal:You need to sign up and create user name and password.
[3:29 pm]-Darshak Gosalia:My Credit V spread is deep in the money and have 2 weeks to expire. 5 strike. Currently I have to pay \$4 to buy back. Will it erode to \$5? Or will it become cheaper?
[3:31 pm]-Darshak Gosalia:Would like to know how one can reduce loss
[3:32 pm]-cheri santay:did he say that delta moves one to one with stocks??
[3:33 pm]-cheri santay:trying to take notes... and wasnt sure about that one
[3:33 pm]-Ed Dupuis:cheri only for options deep in the money
[3:33 pm]-Dan Brown:only when delta is 100 or close to 100
[3:33 pm]-cheri santay:thanks
[3:33 pm]-Ed Dupuis:deep ITm = 100 delta
[3:33 pm]-Tom Farrand:as it approaches expiration
[3:34 pm]-Dan Brown:if delta is 50 then it moves half
[3:34 pm]-Dan Brown:etc etc
[3:34 pm]-cheri santay:thanks
[3:34 pm]-cheri santay::)

[3:34 pm]-Tom Farrand:vega
[3:34 pm]-Tom Farrand:high correlation between gamma and theta
[3:35 pm]-Dan Brown:tom not sure expiration has anything to do with delta, I think it is the price of the underlying that impacts delta
[3:35 pm]-Wingho Liu:i need help
[3:35 pm]-Wingho Liu:i click on the link..
[3:35 pm]-Tom Farrand:i am just typing what he says
[3:35 pm]-Wingho Liu:and i couldn't find the archieve
[3:36 pm]-Tom Farrand:vega is sensitivity of implied volatility
[3:36 pm]-cheri santay:im not that good.. i am doing it on paper
[3:37 pm]-Tom Farrand:senitivity is greater the farther out the strike
[3:37 pm]-Tom Farrand:theta includes interest
[3:38 pm]-thomas bak-pedersen:duration,,convexity
[3:38 pm]-Tom Farrand:mortgage analogy is wrong
[3:39 pm]-Mike Graf:Wingho - did you register on teh riskdoctor site?
[3:39 pm]-Wingho Liu:i just did Mike
[3:39 pm]-Wingho Liu:i just logged on
[3:40 pm]-Wingho Liu:i saw 2 blue boxes,, user info and statistics
[3:45 pm]-David Bate:Where can I get this PDF file?
[3:45 pm]-cheri santay:which book is this..I know it is Charles' just not sure which one
[3:46 pm]-Richard Salkind:3.90
[3:46 pm]-cheri santay:loose .30
[3:47 pm]-robert bonanno:1.10*
[3:47 pm]-John Dori:Worth 5, made 1.90
[3:47 pm]-Ed Dupuis:1.10
[3:47 pm]-george ma:gain 1.10
[3:47 pm]-Ed Dupuis:gain
[3:47 pm]-robert bonanno:make
[3:47 pm]-John Dori:Meant 1.10
[3:47 pm]-Ed Dupuis:made 5 on the spread minus 3.90 cost
[3:48 pm]-Ed Dupuis:lose 1.05
[3:48 pm]-Scott Neal:Couldn't we explain how we made the 1.10 before moving on?
[3:48 pm]-Manny Ejiofor:3.95
[3:48 pm]-george ma:loss 1.05
[3:49 pm]-Robert Z Cashman:BTW, how long will this be until? 4pm CST?
[3:49 pm]-cheri santay:yes
[3:49 pm]-cheri santay:4 cst
[3:50 pm]-Ed Dupuis:more
[3:50 pm]-Dan Brown:more
[3:50 pm]-Brian Harris:more
[3:51 pm]-cheri santay:more
[3:51 pm]-Harish Kambeyanda:More
[3:51 pm]-george ma:more
[3:51 pm]-Donnie Hill:more
[3:51 pm]-cheri santay:slows time
[3:51 pm]-cheri santay:adds value
[3:51 pm]-Dan Brown:higher vol is your friend
[3:51 pm]-Dan Brown:whoops
[3:52 pm]-Dan Brown:thought we were buying
[3:53 pm]-Dan Brown:the call
[3:53 pm]-cheri santay:i thought the vol going up made the time slow and price go up...did I write that wrong
[3:53 pm]-george ma:more
[3:54 pm]-Henry Sherwood:more
[3:54 pm]-cheri santay:more
[3:54 pm]-Richard Salkind:more
[3:54 pm]-Dan Brown:ok ok
[3:54 pm]-thomas bak-pedersen:morre
[3:54 pm]-Donna Ribecchi:puts are protection up more
[3:54 pm]-Dan Brown:were we buying or selling the 3.90 spread
[3:55 pm]-Dan Brown:we were selling the call spread in this example?
[3:56 pm]-Dan Brown:when you asked the question before
[3:56 pm]-cheri santay:i thought buying
[3:56 pm]-Dan Brown:me too
[3:56 pm]-Dan Brown:before the put side
[3:56 pm]-Dan Brown:i thought we were buying
[3:56 pm]-Dan Brown:if we were buying wouldn't the call spread increase with vol?
[3:57 pm]-Manny Ejiofor:Credit spread is vega negative right
[4:02 pm]-eric bell:Have to go, thank you.

[4:03 pm]-Robert Z Cashman:Keep going for as long as you can. :)
[4:03 pm]-Robert Z Cashman:This is interesting...
[4:03 pm]-Richard Salkind:what you paid
[4:03 pm]-Harish Kambeyanda:3.60
[4:03 pm]-george ma:3.60
[4:03 pm]-Joe Kurlak:600
[4:03 pm]-Manny Ejiofor:\$600. I am cheating
[4:03 pm]-Gary Moore:300
[4:04 pm]-cheri santay:looks like a football play :)
[4:05 pm]-Joe Kurlak:Too many quarterbacks
[4:07 pm]-cheri santay:so do you go to the furtheset two apart that are in the money to get this
[4:07 pm]-Harish Kambeyanda:How does it work for a combination of ITM and OTM?
[4:07 pm]-cheri santay:calls and puts furthest apart ITMoney difference...
[4:07 pm]-cheri santay:I like this
[4:07 pm]-Donna Ribecchi:Ha! Think I understand. Did not think of it in terms of extrinsic value
[4:07 pm]-cheri santay:ha ha
[4:12 pm]-John Dori:Would it ever be advantageous to trade a guts strangle, or would you only be tying up money in the form of intrinsic value?
[4:12 pm]-Tim Mac:Most excellent - thanks!
[4:13 pm]-cheri santay:thanks for the info... this is awesome and greatly appreciated
[4:13 pm]-Dan Brown:do most of the trades you are talking about require a directional bias
[4:13 pm]-george ma:thanks
[4:13 pm]-Harish Kambeyanda:Thanks
[4:13 pm]-Manny Ejiofor:Great Listening to you Charles again.
[4:13 pm]-Gary Moore:Thanks I appreciate your teachings!!
[4:13 pm]-Kathleen Allen-Cossey:thanks
[4:13 pm]-Giulio Galassi:Thanks Charles, a great session!
[4:13 pm]-gerard de condappa:thank you
[4:13 pm]-Donna Ribecchi:Thank you
[4:13 pm]-joan rester:I have a lot to learn but you were great! Thanks, Joan
[4:13 pm]-Henry Sherwood:Thanks
[4:14 pm]-Pete Meke:Thanks Charles!
[4:14 pm]-cheri santay:thanks mike

Ri\$k Doctor
Administrator
Hero Member
★★★★★
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« **Reply #1 on:** May 11, 2009, 11:48:55 AM »

Notable:

[3:38 pm]-Tom Farrand:mortgage analogy is wrong

What do you mean?

[3:53 pm]-cheri santay:i thought the vol going up made the time slow and price go up...did I write that wrong

I Vol going up is like more time added to the clock with regard to premium.

[4:12 pm]-John Dori:Would it ever be advantageous to trade a guts strangle, or would you only be tying up money in the form of intrinsic value?

Disadvantage also due to Wide Bid/Ask.

[4:13 pm]-Dan Brown:do most of the trades you are talking about require a directional bias?

Very often, yes.

Author


Ri\$k Doctor

Administrator

Hero Member

★★★★★

Posts: 3249



Study Materials

« on: April 28, 2009, 04:04:02 AM »

Ask any Option Question Here and Email riskdoctor@riskdoctor.com to let us know if you have initiated a New Topic. Click "Track This Topic" (RiskDoctor will too) and we will all get emails when someone responds to a new post following that topic.

CME_Options_Basics.pdf

CME_Strategy_Guide.pdf

Check out the [Homework Exercises](#)

PLEASE CIRCLE ALL ANSWERS THAT APPLY1. *Theta is the portion of an option's premium which:*

- a. Decreases the extrinsic value.
- b. Increases the intrinsic value.
- c. Decreases the intrinsic value.
- d. Increases the extrinsic value.

2. *A bull spread is a vertical spread where an increase in the price of an underlying will result in a theoretical profit for the spread. Using the following strikes construct: (use "L" for long and "S" for short)*

- | | 875 | 900 |
|----------------------|------------|------------|
| a. Bull Call Spread: | ____C | ____C |
| b. Bull Put Spread: | ____P | ____P |

3. *A bear spread is a vertical spread where a decrease in the price of the underlying will result in a theoretical profit for the spread. Using the following strikes, construct: (use "L" for long and "S" for short)*

- | | 875 | 900 |
|----------------------|------------|------------|
| a. Bear Put Spread: | ____P | ____P |
| b. Bear Call Spread: | ____C | ____C |

4. *Create one long Straddle by writing "+1" (wherever appropriate) in the spaces adjacent to the strike prices below.*

<i>Strike Price</i>		
CALLS		PUTS
_____	900	_____
_____	925	_____

5. *Create one short Strangle by writing "-1" (wherever appropriate) in the spaces adjacent to the strike prices below.*

<i>Strike Price</i>		
CALLS		PUTS
_____	900	_____
_____	925	_____

6. *Match answer with definition.*

- ___ Notifies the seller of an option that the option has been exercised by the buyer.
- ___ To use the right conferred by an option.
- ___ The amount paid by the buyer of an option to the seller of the option.
- ___ The price at which the underlying asset changes hands after the option is exercised.
- ___ The commodity to be delivered in the event that the option is exercised.
 - a. Underlying
 - b. Premium
 - c. Exercise
 - d. Last day of notice
 - e. Assignment
 - f. Strike Price
 - g. Execution
 - h. Out trade
 - i. Expiration

7. *Options buyers have:*

- a. limited risk
- b. limited reward
- c. collect premium
- d. unlimited risk
- e. unlimited reward
- f. to pay premium

8. *The passage of time works for options sellers.*

- a. True b. False

9. *Options sellers have:*

- a. limited risk
- b. limited reward
- c. collect premium
- d. unlimited risk
- e. unlimited reward
- f. to pay premium

10. *Buyers of options are:*

- a. long premium b. short premium

11. *A call buyer has the right, but not the obligation, to buy the underlying at a specified price on or before an expiration date.*

- a. True b. False

12. *A call seller has the responsibility of delivering the underlying contract at a specified price on or before the expiration date if assigned.*

- a. True b. False

13. *A put buyer has the right, but not the obligation, to sell/short the underlying at a specific price on or before an expiration date.*

- a. True b. False

14. *A put seller has the responsibility of _____ the underlying at a specific price if assigned.*

- a. buying b. selling

15. *A put option has value on expiration only if the underlying contract is trading _____ the strike price.*

- a. above b. below

16. *Long calls are usually spread against _____ individually.*

- a. long stock
- b. short stock
- c. long puts
- d. short puts
- e. other long calls
- f. short calls

17. *Short puts are usually spread against _____ individually.*

- a. long stock
- b. short stock
- c. long calls
- d. short calls
- e. other short puts
- f. long puts

18. *A call option has value on expiration only if the underlying contract is trading_____ the strike price.*
- a. above b. below
19. *European-style options can be exercised at expiration only.*
- a. True b. False
20. *Delivery of an S&P 500 futures contract, means receiving all 500 stocks in the index.*
- a. True b. False
21. *If perceived market volatility increases while other market parameters remain unchanged, both put and call prices can be expected to decrease.*
- a. True b. False
22. *An option which is in-the-money has no intrinsic value.*
- a. True b. False
23. *An option's exercise price may fluctuate over time.*
- a. True b. False
24. *An option's delta may change over time.*
- a. True b. False
25. *On the day a stock goes ex-dividend, the stock price will be adjusted by an amount equal to or near the amount of the dividend.*
- a. up b. down
26. *A put option is in-the-money when the price of the underlying is:*
- a. above the strike price
 - b. at the strike price
 - c. below the strike price
27. *A call option is in-the-money when the price of the underlying is:*
- a. above the strike price
 - b. at the strike price
 - c. below the strike price
28. *The amount between the underlying price and the strike price for an ITM option is:*
- a. extrinsic premium
 - b. intrinsic premium
 - c. the cost to carry the option until expiration

Answer Sheet

Circle correct answer and fill in blanks

1. a. b. c. d.

	875	900
2. a.	_____C	_____C
b.	_____P	_____P

	875	900
3. a.	_____P	_____P
b.	_____C	_____C

4.	CALLS	strike	PUTS
	_____	900	_____
	_____	925	_____

5.	CALLS	strike	PUTS
	_____	900	_____
	_____	925	_____

6. _____, _____, _____, _____, _____

7. a. b. c. d. e. f.

8. a. b.

9. a. b. c. d. e. f.

10. a. b.

11. a. b.

12. a. b.

13. a. b.

14. a. b.

15. a. b.

16. a. b. c. d. e. f.

17. a. b. c. d. e. f.

18. a. b.

19. a. b.

20. a. b.

21. a. b.

22. a. b.

23. a. b.

24. a. b.

25. a. b.

26. a. b. c.

27. a. b. c.

28. a. b. c.

29. *As expiration approaches, intrinsic premium will:*
- a. fluctuate with changes in implied volatility
 - b. erode, eventually to zero
 - c. increase or decrease, depending on the price of the stock
30. *CMC is trading at 40.10. If the stock rises to 44.90, the greatest amount of extrinsic premium will be in the ____ calls.*
- a. 40
 - b. 45
 - c. 50
31. *The excess value of an option over and above the difference between the underlying stock price and the strike price for an option is known as:*
- a. extrinsic premium
 - b. rebate
 - c. intrinsic value
32. *With CMC stock at 120, an in-the-money Oct 110 call with a price of 13.15 has extrinsic premium of:*
- a. 13.15
 - b. 10
 - c. 3.15
33. *S&P futures: 850; Strike price: 800 825 850 875 900 Identify these strikes (list all):*
- a. OTM calls _____
 - b. ATM calls _____
 - c. ITM calls _____
 - d. OTM puts _____
 - e. ATM puts _____
 - f. ITM puts _____
34. *OTM option premium can be made up of:*
- a. Intrinsic and extrinsic value
 - b. Extrinsic value only
 - c. Intrinsic value only
35. *ATM options have the highest time value.*
- a. True
 - b. False
36. *A trader who has short straddle position wants the market to sit still.*
- a. True
 - b. False

37. *A bull call spread -- long a call with a lower strike price, and short a call at a higher strike price -- has limited loss potential, but unlimited profit potential.*
- a. True b. False
38. *When buying a butterfly, the maximum profit at expiration is:*
- a. at the middle strike price
 - b. outside the wings
 - c. on the upside only
39. *An option with a delta or hedge ratio of 33 means that the option should theoretically move about:*
- a. .33
 - b. 33% of the time
 - c. 1/3 of the amount of the movement of the underlying
40. *Some major influences on the price of listed exchange traded stock options are: (list all that apply)*
- a. Strike
 - b. Implied volatility
 - c. Interest rate
 - d. Time until expiration
 - e. Volatility skews
 - f. Liquidity
41. *The writer of a call on an exchange-traded futures contract, when notified that the call has been exercised by the holder, will:*
- a. Receive a short futures position at the clearing house with price entry equal to the option strike no matter how much higher the futures market might be.
 - b. Receive a long position in the futures market at the call strike price no matter how high the futures market might be.
 - c. Buy back the call.
 - d. Must make notice to the clearing firm about exercising in-the-money puts.
42. *The owner of a put on an exchange-traded stock options contract has the right but not the obligation to:*
- a. Buy 100 shares of stock at the strike price of the put at any time from purchase of the put until expiration.
 - b. Sell 100 shares of stock at the put strike price at any time from purchase to expiration.

43. *The seller of a put retains the premium paid whether the option is exercised or left to expire.*
- a. True b. False
44. *Buyers of options can have margin calls if their position goes against them.*
- a. True b. False
45. *Theoretically, premium will erode at a more rapid pace:*
- a. 90 days prior to expiration
b. 60 days before expiration
c. 10 days before expiration
46. *If two call options have the same underlying contract and same time to expiration and option A has an implied volatility of 32% and option B has an implied volatility of 34%, then:*
- a. the dollar price of option A will always be less than the dollar price of option B.
b. the dollar price of option B will always be less than the dollar price of option A.
c. in theoretical terms, option A is cheaper than option B.
d. option A is a better buy than option B.
47. *Which of the following will not help a trader who is long strangles?*
- a. the underlying market moves up sharply
b. implied volatility begins to fall
c. the market moves down sharply
d. the underlying market trades in a small range
48. *The greatest amount of extrinsic premium will be in which strike price?*
- a. In-the-money
b. At-the-money
c. Out-of-the-money
49. *When implementing a ratio spread, e.g. CMC @ 27.75 (Buy 1 Sep 25 Call @ 3.75, Sell 3 Sep 30 Calls @ 1.25 each) the risk is:*
- a. stock stays between 25 and 30
b. stock is taken over above 35
c. stock drops to 25
d. implied volatility increases

50. When putting on any type of spread where legging sides of the spread may be required, which leg should be done first?

- a. the most liquid - you know you can do it fast
- b. the most difficult side
- c. it isn't an important consideration
- d. the option with the bigger DELTA

51. Buying a straddle is often done:

- a. if anticipating that the underlying is going to be choppy (small moves up and down)
- b. in anticipation of an increase in implied volatility
- c. if one wants to get long on upside or short on downside automatically

52. If you were to sell a strangle (e.g. Sell Aug 85 Put, Sell Aug 95 Call) and receive a 7.50 credit for the sale, you would lose money if, at expiration, the underlying was:

- a. @ 86 b. @ 96 c. @ 76

53. ITM options can be expected to move dollar-for-dollar with the underlying when _____.

54. Fill in the proper values.

<i>Option</i>	<i>Option Premium</i>	<i>Underlying Index</i>	<i>Intrinsic Value</i>	<i>Extrinsic Value</i>
a. SPX 900C	56.10	929.00	_____	_____
b. SPX 925C	42.65	941.10	_____	_____
c. SPX 950C	34.30	949.30	_____	_____
d. SPX 975P	46.15	960.45	_____	_____
e. RUT 500C	32.10	511.85	_____	_____
f. RUT 475P	12.10	507.70	_____	_____
g. RUT 450C	76.85	522.65	_____	_____

55. *If on Monday the OEX is trading 451, the 450 call premium is 6.00, and on Tuesday (all things being equal) the OEX is trading 450 but the 450 call premium is 6.50. A trader would assume that current implied volatility is:*

- a. higher than Monday's
- b. lower than Monday's

56. *When you borrow stock to deliver against a short stock sale, often you may be entitled to a partial rebate based on a percentage of the broker loan rate. This is the short stock rebate:*

- a. True b. False

57. *A motive for putting on a backspread is anticipation of:*

- a. a stable market
- b. a gapping market
- c. a grinding trend

58. *A butterfly can be all calls, all puts, a combination of the two, or a combination of puts, calls, and underlying.*

- a. True b. False

For 59 & 60 *A long butterfly (CMC stock at 34.75, buy 1 July 30 call @ 6.20, sell 2 July 35 calls @ 2.75 each, sell 1 July 40 call @ 1.30);*

59. *A loss will occur if, at expiration, CMC is trading at:*

- a. 39 b. 36 c. 33

60. a. *What are the break-even points?_____*

b. *What is the maximum profit at expiration (excluding transaction costs)?_____*

c. *What is the maximum loss at expiration (excluding transaction costs)?_____*

61. *CMC is trading at 59.25. The Oct 55 call is 6.50. The Oct 60 call is 3.75, and the Oct 65 call is at 2.*

a. *What are the Break-Even points?_____*

b. *What is the maximum profit at expiration (excluding transaction costs)?_____*

c. *What is the maximum loss at expiration (excluding transaction costs)?_____*

62. *The concept of "undervalued" in relative price terms means:*
- a. Current implied volatilities are lower than the average historical value
 - b. An option is being offered lower than a certain level creating the spreading opportunity to lock in a safe relationship
 - c. An option is cheap compared to the theoretical value model
 - d. An option is trading at a lower volatility at one strike compared to the options at other strikes.
63. *A trader should increase the size of his trades when:*
- a. He has tracked the underlying stock movements and knows the trend
 - b. There is greater degree of profit potential with the same or diminished risk
 - c. There is less liquidity
 - d. Profits have been consistent
64. *If a trader spreads put options in the S&P, buying 20 June 875 puts (each with a premium of 12.40) and selling 20 June 850 puts (each with a premium of 4.30), what do we call the position and at what price?*
65. *With index at 879, an in-the-money Oct 875 Call with a price of 6.10 has extrinsic premium of:*
- a. 6.10
 - b. 4.00
 - c. 2.10
 - d. 0.75
66. *The key point when buying an ATM calendar (buy deferred, sell front month) is that the position is:*
- a. Long vega, short gamma
 - b. Long gamma, short vega
 - c. Long vega, long gamma
 - d. Short vega, short gamma
67. *What was the delta on the spread in Question #67?*
- a. Positive
 - b. Negative

68. *If a long calendar widens on a down move, it could mean:*
- Implied volatility (vega) increased
 - The delta of the spread decreased
 - Theta (erosion over time) was increased
69. *An investor buys one JUN SPX 860 put for 7.40. Assume the SPX was at 859.00 last week.*
- What was the dollar cost of the premium to the investor?_____
- Now, one week later, June futures are at 865.00 and the 860 puts are trading at 2.60.*
- What is the profit or loss on the put mark-to-market?_____
70. *A trader puts on a long strangle in the SPX options because she anticipates a sudden but sharp movement up or down in the stock market. Assume: the SPX was at 883.50, JUN 885 calls = 3.10, JUN 880 puts = 3.00:*
- What is the trader's maximum risk?_____
 - What is the trader's maximum profit?_____
 - What is the profit or loss if June futures expire at 892.00?_____
 - What are the Break-Even levels at expiration?_____
71. *The value of the CMC JUL 40/45 call vertical is 2.75 and 1.90 for the 45/50 call vertical. What would be the total value of 10 JUL 40/45/50 call butterflies?*
72. *List in order of safety, from safest to most dangerous, the following positions?*
- Covered Write with Stock at \$53.00 and 55 Call at \$2.00
 - \$5.00 Bull Call Vertical Spread going for \$3.00
 - Long \$10 Call Butterfly going for \$2.50 Debit
 - Short \$5 Iron Butterfly (long wings) going for \$4.00 Credit

RiskDoctor, Inc. Foundations of Options Exercise One Key

- | | |
|--|--|
| <p>1. A</p> <p>2. 875 900
 a. <u> L </u> C <u> S </u> C
 b. <u> L </u> P <u> S </u> P</p> <p>3. 875 900
 a. <u> S </u> P <u> L </u> P
 b. <u> S </u> C <u> L </u> C</p> <p>4. CALLS PUTS
 <u> +1 </u> 900 <u> +1 </u>
 _____ 925 _____</p> <p style="text-align: center;"><u>OR</u></p> <p> CALLS PUTS
 _____ 900 _____
 <u> +1 </u> 925 <u> +1 </u></p> <p>5. CALLS PUTS
 <u> -1 </u> 900 _____
 _____ 925 <u> -1 </u></p> <p style="text-align: center;"><u>OR</u></p> <p> CALLS PUTS
 _____ 900 <u> -1 </u>
 <u> -1 </u> 925 _____</p> <p>6. E, C, B, F, A</p> <p>7. A, E, F</p> <p>8. A</p> <p>9. B, C, D</p> <p>10. A</p> <p>11. A</p> <p>12. A</p> <p>13. A</p> <p>14. A</p> | <p>15. B</p> <p>16. A</p> <p>17. A</p> <p>18. A.</p> <p>19. A. 1</p> <p>20. B</p> <p>21. B</p> <p>22. B</p> <p>23. B</p> <p>24. A</p> <p>25. B</p> <p>26. C</p> <p>27. A</p> <p>28. B</p> |
|--|--|

RiskDoctor, Inc. Foundations of Options Exercise Two Key

29. C

30. B

31. A

32. C

33.

a. 875, 900

b. 850

c. 800, 825

d. 800, 825

e. 850

f. 875, 900

34. B

35. A

36. A

37. B

38. A

39. C

40. A, B, C, D, E, F

41. A

42. B

43. A

44. B

45. C

46. C

47. B, D

48. B

49. B, D

50. B

51. B, C

52. C

53. Deep ITM or $\Delta = 100$

54.

a. 29.00 27.10

b. 16.00 26.65

c. 0 34.30

d. 14.55 31.60

e. 11.85 20.25

f. 0 12.10

g. 72.65 4.20

RiskDoctor, Inc. Foundations of Options Exercise Three Key

55. A

56. A

57. B

58. A

59. A

60.

a. B/E pts. = 32, 38

b. Max profit = 3

c. Max loss = 2

61.

a. B/E pts. = 56, 64

b. Max profit = 4.00

c. Max loss = 1.00

62. C

63. B, D

64. JUN 850/875 or 875/850

Put Bear Spread

Or Put Spread

Or Put Vertical

Or Put Debit Spread

Price = 8.10 Debit (10X)

65. C

66. A

67. B

68. A, B, C

69.

a. 740

b. (480)

70.

a. \$610

b. unlimited

c. \$90

d. SPX at 891.10 or 873.90

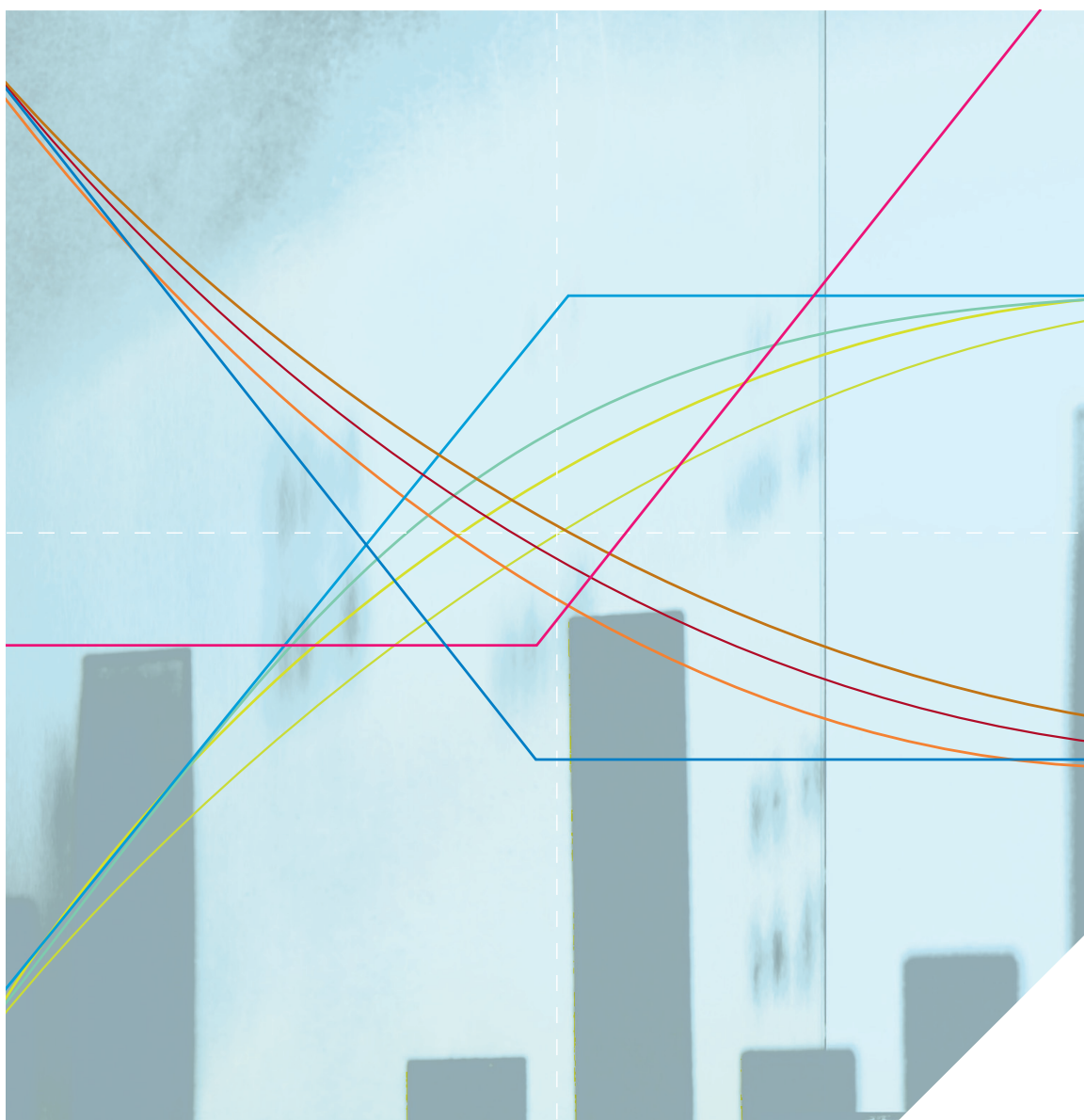
71. \$850

72. D, C, B, A.

CME Education Series

CME Options on Futures

The Basics





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Options on futures are one of the most versatile risk management products offered by CME. These powerful tools can be used to protect against adverse price moves in commodity, interest rate, foreign exchange and equity markets. Whether they are traded for purposes of hedging or speculating, the risk involved can be limited to the amount paid up-front for the option. As a result, they have become an increasingly popular hedging vehicle, and they are used today by corporate treasurers, bankers, farmers and equity portfolio managers throughout the world.

This booklet will introduce you to the basic terms and strategic uses of options on futures.

1. Vocabulary

Options on futures are relatively easy to understand once you master the basic vocabulary. Only advanced options concepts and strategies require complex mathematics.

Option

An option on a futures contract is the right, but not the obligation, to buy or sell a particular futures contract at a specific price on or before a certain expiration date. There are two types of options: call options and put options. Each offers an opportunity to take advantage of futures price moves without actually having a futures position.

Call Option

A call option gives the holder (buyer) the right to buy (go long) a futures contract at a specific price on or before an expiration date. For example, a September CME® Japanese Yen 85 call option gives the holder (buyer) the right to buy or go long a yen futures contract at a price of 85 (short-hand for \$.0085/yen) anytime between purchase and September expiration. Even if yen futures rise substantially above .0085, the call holder will still have the right to buy yen futures at .0085.

Put Option

A holder of a put option has the right to sell (go short) a futures contract at a specific price on or before the expiration date. For example, an October 70 CME Live Cattle put gives the put holder the right to sell October CME Live Cattle futures at 70 cents/lb. Should the futures decline to 64 cents/lb., the put holder still retains the right to go short the contract at 70 cents/lb.

Option Buyer

An option buyer can choose to exercise his or her right and take a position in the underlying futures. A call buyer can exercise the right to buy the underlying futures and a put buyer can exercise the right to sell the underlying futures contract. In most cases though, option buyers do not exercise their options, but instead offset them in the market before expiration, if the options have any value.

Option Seller

An option seller (i.e., someone who sells an option that he or she didn't previously own) is also called an option writer or grantor. An option seller is contractually obligated to take the opposite futures position if the buyer exercises his or her right to the futures position specified in the option the buyer has purchased. In return for the premium, the seller assumes the risk of taking a possibly adverse futures position.

Puts and Calls

Puts and calls are separate option contracts; they are not the opposite side of the same transaction. For every put buyer there is a put seller, and for every call buyer there is a call seller.

The option buyer pays a premium to the seller in every transaction. The following is a list of the rights and obligations associated with trading put and call options on futures.

<i>Call Buyers</i>	<i>Call Sellers</i>
» pay premium	» collect premium
» have right to exercise, resulting in a long futures position	» have obligation if assigned, resulting in a short position in the underlying futures contract
» have time working against them	» have time working in their favor
» have no performance bond requirements	» have performance bond requirements

Put Buyers	Put Sellers
» pay premium	» collect premium
» have right to exercise, resulting in a short futures position	» have obligation if assigned, resulting in a long position in the underlying futures contract
» have time working against them	» have time working in their favor
» have no performance bond requirements	» have performance bond requirements

Exercise Price

Also known as the strike price, the exercise price is the price at which the option buyer may buy or sell the underlying futures contracts. Exercising the option results in a futures position at the designated strike price. For example, by exercising a September CME E-mini™ S&P 500® 1200 call, the buyer of the option would then be long a September CME S&P 500 contract at 1200. If the holder of a June CME Live Cattle 80 put were to exercise his or her option, the result would be a short futures position, at 80, in June CME Live Cattle.

Strike prices are set by the Exchange and have different intervals depending on the underlying contract. Strike prices are set above and below the existing futures price and additional strikes are added if the futures move significantly up or down.

Underlying Futures Contract

The underlying is the corresponding futures contract that is purchased or sold upon the exercise of the option. For example, an option on a June CME Live Cattle futures contract is the right to buy or sell one such contract. An option on September CME Canadian dollar futures gives the right to buy or sell one September CME Canadian dollar futures contract.

Premium

The premium is the price that the buyer of an option pays and the seller of an option receives for the rights conveyed by an option. Thus, ultimately the cost of an option is

determined by supply and demand. Various factors affect options premiums, including strike price level in relation to the futures price level; time remaining to expiration; and market volatility—all of which will be discussed further.

Exercise

Exercise refers to the process whereby the option buyer asserts his right and goes long the underlying futures (in the case of exercising a call) or short the underlying futures (in the case of exercising a put).

Assignment

Assignment refers to the obligation of sellers to take the opposite and possibly adverse futures position to the buyers' if assigned and for this risk receive the premium. Remember: Buyers *exercise* and sellers get *assigned*.

Expiration Date/Last Trading Day

This is the last day on which an option can be exercised into the underlying futures contract. After this point the option will cease to exist; the buyer cannot exercise and the seller has no obligation.

Note that some options expire prior to the final settlement or expiration of the underlying futures contract. For example, a Sep 2005 CME British pound 2000 call option will expire September 9, 2005. However, the underlying futures will expire September 19, 2005. The last trading day is the last day on which an option can be offset.

Offset

The buyer is under no obligation to exercise an option on a futures contract. As a matter of fact, many traders choose to offset their position prior to expiration. Traders will offset their position if they wish to take profits before expiration or limit losses on the downside. Buyers can offset their options by instructing their broker to sell their option before expiration. An option seller can offset a position by buying back or “covering” a short position. Options on futures, like futures themselves, trade both on the CME floor, where a market normally exists to offset options positions, and on the CME® Globex® electronic trading platform, where many options can be traded virtually around-the-clock throughout the trading week.

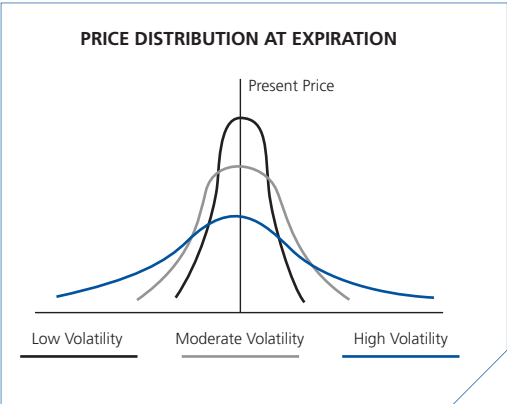
2. Pricing Fundamentals

An option gives the holder the right, though not the obligation, to take a long or short position in a specific futures contract at a fixed price on or before the expiration date. For this right granted by the option contract the buyer pays a sum of money or premium to the option seller. The option seller (or writer) keeps the premium whether the option is exercised or not. The seller must fulfill the obligation of the contract if the option is exercised by the buyer.

How are options premiums (or prices) determined? While supply and demand ultimately determine the price of options, several factors have a significant impact on option premiums.

1. The volatility of the underlying futures markets

Volatility is a function of price movement. When prices are rising or falling substantially, volatility is said to be high. When a futures contract shows little price movement, volatility is said to be low. High volatility generally causes options premiums to increase—sometimes very dramatically. Lower volatility environments generally cause options premiums to decline.



This is because when markets become volatile, option buyers are willing to pay larger premiums for greater protection against adverse price risk because there is greater chance of price change in the underlying instrument. On the other hand, a greater chance for price change means more risk for the option seller. Sellers therefore demand a larger premium in exchange for this risk. It is much the same as insurance and insurance underwriters. If risk is perceived to be large, the insurance company will require a larger premium. If the risk is not large the insurance purchaser will not have to pay a large premium. With options, anytime there is a greater chance of the underlying futures advancing or declining through one or more exercise prices, risk is perceived to be greater and premiums will increase.

The Impact of Volatility on Option Premiums

	Low Volatility	Medium Volatility	High Volatility
Dec CME E-mini S&P 500			
1150 call option	8.50 pts.	11.40 pts.	14.20 pts.

The chart above shows that as volatility increases, options premiums increase. This effect can be significant. Options traders should be sure to address volatility before using these markets.

2. The exercise price compared to the underlying futures price

The relationship between the option's strike price and the underlying futures price is another key influence on option premiums. If CME S&P 500 futures are trading at 1150.00, common sense tells us that an 1130 call option will be worth more than an 1140 call option (the right to buy ten full points lower will be more costly). Similarly, an 1170 call option would be relatively cheap because the underlying CME S&P 500 futures is a full 20 points away from the exercise price.

3. Time remaining to expiration

An option's value erodes as its expiration nears. An option with 60 days until expiration will have greater theoretical value than an option with 30 days until expiration. Because there is more time for the underlying futures to move, sellers will demand, and buyers will be willing to pay, a larger premium.

The Effect of Time on Option Premiums

	60 days until expiration	30 days until expiration
June CME S&P 500		
900 call option value	41.80 pts.	30.70 pts.

Option Premium Quotations

Closing prices for CME options products are found in many business publications, such as *The Wall Street Journal*. If you have mastered the vocabulary and concepts up to this point, locating various options with differing strike prices and expiration months should be easy. Delayed options quotes are also available on the CME Web site, www.cme.com, in the market data section under "intraday quotes." It is also possible to get options quotes, including real-time quotes through various quote vendors.

To understand option quotes in print format, please notice the shaded areas in the following CME Euro FX options table, showing the premium quotes on a CME Euro FX September 1.325 call option. The premium is quoted at .54 cents/euro. In other words, the buyer of this option has the right, but not the obligation, to go long CME Euro FX futures at 1.325 any time before expiration. The buyer of this call will pay \$675.00 (.54 cents/euro x 125,000 euro = \$675.00) to the seller.

CME EURO FX (IMM) – 125,000 Euros

¹ Strike Price	² Jun-c	³ Calls-Settle Sep-c	Dec-c	Jun-p	⁴ Puts-Settle Sep-p	Dec-p
1.300	2.00	2.81	3.31	0.06	0.65	0.96
1.305	1.17	2.12	2.69	0.23	0.95	1.30
1.310	0.53	1.57	2.15	0.59	1.38	1.72
1.315	0.19	1.12	1.69	1.25	1.90	2.22
1.320	0.05	0.79	1.31	2.11	2.56	2.60
1.325	0.02	0.54	1.01	3.08	3.29	3.46

⁵—Est. vol. 13,020, Wed. vol. 6,007 calls, 4,526 puts
Open interest Wed.: 73,689 calls, 70,024 puts

⁶

- 1 Most active strike prices
- 2 Expiration month
- 3 Closing prices for call options
- 4 Closing prices for put options
- 5 Volume of options transacted in the previous two trading sessions. Each unit represents both the buyer and the seller
- 6 The number of open short or long option positions at the end of the previous day's trading session.

3. Arithmetic

In the CME Swiss Franc option quote table, again notice the shaded areas. They represent the settlement price of a CME Swiss Franc September 85 put option, .99. This would give the put buyer the right to sell September CME Swiss Franc futures at 85 anytime between purchase and expiration. The buyer would pay \$1,237.50 (.99 cents/ franc x 125,000 francs = \$1,237.50) to the seller.

CME SWISS FRANC (IMM) 125,000 francs; cents per franc

Strike Price	Calls-Settle			Puts-Settle		
	Jun-c	Jul-c	Dec-c	Jun-p	Jul-p	Sep-p
85	2.02	2.22	2.69	0.21	0.50	0.99
86	1.28	1.58	2.10	0.46	0.85	1.38
87	0.73	1.06	1.59	0.91	1.32	1.85
88	0.38	0.68	1.21	1.56	1.92	—
89	0.18	0.42	0.88	—	—	—
90	0.09	0.24	0.63	—	—	—

Est. vol. 1,976, Fri. vol. 2,480 calls, 4,459 puts
Open interest Fri.: 15,989 calls, 24,450 puts

Breakeven Points

As mentioned previously, options are versatile instruments that allow the possibility of profit while also limiting risk to a predetermined amount. The maximum amount options buyers can lose is the premium that they originally paid, plus brokerage commissions. But before initiating an options position, the trader should first calculate the breakeven point. To calculate an options breakeven point the trader uses the strike price and the premium. Knowing breakeven points will help traders choose more effective strategies.

Example: A trader purchases a June CME E-mini S&P 500 1150 call option and pays a premium of 7.50. Where does the underlying futures have to advance for the option to break even at expiration?

Breakeven point for calls:

Strike Price	+	Premium Paid	=	Breakeven Point
1150	+	7.50	=	1157.50

Thus, for this position to break even, the underlying June futures contract has to advance to 1157.50.

Example: If a trader purchases a September CME Swiss Franc 85 put option for .99 pts., how far must the September CME Swiss Franc future decline for the option to break even at expiration?

Breakeven point for puts:

Strike Price	—	Premium Paid	=	Breakeven Point
85	—	.99	=	84.01 (or .8401)

* Commissions should also be factored into this equation, but differ from firm to firm. Discuss the effects of commissions on breakeven points with your broker.

Time Value and Intrinsic Value

The underlying futures price level compared with the exercise price and the passage of time both have an impact on options premiums. Two terms that describe these effects are referred to as time value and intrinsic value. An option's premium can be made up of one or both of these components. Calculating these two values requires only the strike price, the underlying futures price and the option premium.

Intrinsic value and time value for calls:

In the case of a call, intrinsic value is the amount by which the underlying futures price exceeds the strike price:

$$\begin{array}{rclcl} \text{Futures Price} & - & \text{Strike Price} & = & \text{Intrinsic Value} \\ & & & & \text{(must be positive or 0)} \end{array}$$

Example: June CME Live Cattle futures are trading at 82.50 cents/lb. and the June 80 CME Live Cattle call option is trading at 3.50 cents/lb. What are the time value and intrinsic value components of the premium?

$$\begin{array}{rclcl} \text{Futures Price} & - & \text{Strike Price} & = & \text{Intrinsic Value} \\ 82.50 & - & 80.00 & = & 2.50 \end{array}$$

Time value represents the amount option traders are willing to pay over intrinsic value, given the amount of time left to expiration for the futures to advance in the case of calls, or decline in the case of puts.

Options Premium	-	Intrinsic Value	=	Time Value
3.50	-	2.50	=	1.00

Time Value	+	Intrinsic Value	=	Premium
1.00	+	2.50	=	3.50

Intrinsic value and time value for puts:

In the case of a put, intrinsic value is the amount by which the underlying futures price is below the strike price:

				Intrinsic Value
Strike Price	-	Futures Price	=	(must be positive or 0)

Put Option Premium	-	Intrinsic Value	=	Time Value
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Put Time Value	+	Put Intrinsic Value	=	Put Option Premium
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Example: What are the time value and intrinsic value of a CME Eurodollar 95.00 put if the underlying futures are trading at 94.98 and the option premium is 0.03?

$$\begin{array}{rclcl} \text{Strike Price} & - & \text{Futures Price} & = & \text{Intrinsic Value} \\ 95.00 & - & 94.98 & = & 0.02 \end{array}$$

There are 0.02 points of intrinsic value.

Options Premium	-	Intrinsic Value	=	Time Value
0.03	-	0.02	=	0.01

There is 0.01 point of time value.

4. Important Concepts

In-the-money

A call option is said to be in-the-money when the futures price exceeds the option's strike price. A put is in-the-money when the futures price is below the option's strike price. For example, a September CME Canadian Dollar 60 call option will be in-the-money if September CME Canadian Dollar futures are above 60, meaning that the holder has the right to buy these futures at 60, regardless of how much the price has risen. Any option that has intrinsic value is in-the-money.

At-the-money

An option is at-the-money when the futures price equals the option's strike price. A December CME E-mini S&P 500 call option with a strike price of 1100 is at-the-money if the December CME E-mini S&P 500 futures contract is trading at 1100.00.

Out-of-the-money

When the futures price is below the strike price (for calls) and above the strike price (for puts) the option is said to be out-of-the-money. An option that has no intrinsic value, but only time value, is out-of-the-money. If CME Eurodollars are trading at 94.00, a 94.50 call would be out-of-the-money.

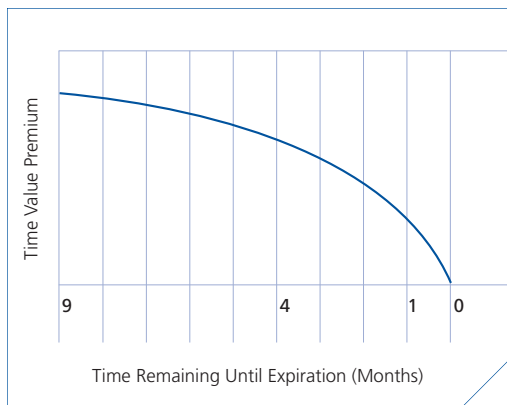
Delta

Delta measures the rate of change of an option premium with respect to a price change in the underlying futures contract. Delta is a measure of price sensitivity at any given moment. Not all options move point-for-point with their underlying futures contracts. If a futures contract moves .50 points and the option only moves .25 points, its delta is 50%; i.e., the option is only 50% as sensitive to the movement of underlying futures contract.

The delta will change as an option moves from out-of-the-money to at-the-money to in-the-money, approaching 100%. Deltas range from 0% to 100%. The delta of the underlying futures contract is 100% (options pricing software is normally used to calculate delta).

Time Value Decay

As discussed in the previous section, the value of an option beyond intrinsic value is called time value. It is the sum of money option traders are willing to pay given the likelihood of the option increasing in value. Time value erodes as each day passes, accelerating as expiration nears. This characteristic of options is referred to as time-decay and is the reason why options are sometimes considered "wasting assets." If time passes and the underlying futures contract does not move far enough by expiration, the option's time value will decay and the option trader may incur a loss. The graph below illustrates the principle of time decay and its acceleration as expiration draws near.



Performance Bond

An option buyer must only put up the amount of the premium, in full, at the time of the trade. However, because option selling involves more risk, an option seller or writer will be required to post performance bond. Your broker can discuss the performance bond requirement associated with selling options (see section regarding risks in selling options). Once an options position is exercised into a futures position, performance bond is required, just as for any other futures position.

5. Basic Strategies

There are literally dozens of options strategies that a trader can employ to take advantage of a particular opinion and market environment. The examples that follow merely suggest what you can do given the flexibility of options, not what you should do.

Strategy A:

Buying calls to take advantage of a rising stock market

Example:

S&P 500 STOCK INDEX (CME) \$250 times premium

Strike Price	Calls-Settle			Puts-Settle		
	May-c	Jun-c	Sep-c	May-p	Jun-c	Sep-p
1145	11.80	14.40	24.20	0.30	3.00	8.20
1150	7.30	10.60	20.50	0.80	4.10	9.40
1155	3.40	7.30	17.10	1.80	5.80	10.80
1160	1.20	4.60	14.00	4.70	8.10	12.60
1165	0.20	2.70	11.20	–	11.10	–
1170	0.10	1.50	8.70	–	14.90	17.00

Est. vol. 11,631: Mon. vol. 5,373 calls; 7,170 puts

Open interest Mon; 79,531 calls; 150,715 puts

Outlook: Significant advance in the stock market

Futures price Strategy: June CME S&P 500 stock index futures @ 1156.50

Buy 1 Sep 1170 CME S&P 500 call option @ 8.70 pts.

(8.70 pts. x \$250/pt. = \$2175.00)

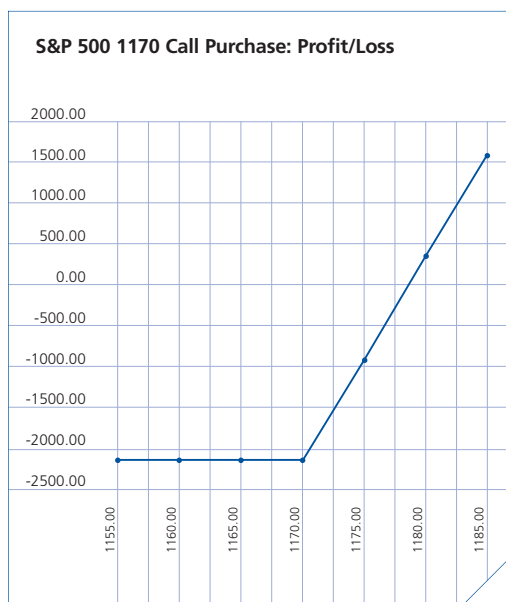
Breakeven point: 1178.70 (strike + premium or 1170 + 8.70)

Risk: Limited to premium paid: 8.70 pts./call (\$2175.00)

Profit/Loss at expiration:

Futures Price	1170 Call Price	Profit/Loss
1155.00	0.00	- 8.70 pts. (-2175)
1160.00	0.00	- 8.70 pts. (-2175)
1165.00	0.00	- 8.70 pts. (-2175)
1170.00	0.00	- 8.70 pts. (-2175)
1175.00	5.00	- 3.70 pts. (-925)
1180.00	10.00	+ 1.30 pts. (+325)
1185.00	15.00	+ 6.30 pts. (+1575)

As the profit/loss table above and the graph below demonstrate, buying calls can result in significant profits should the CME S&P 500 futures rally. More importantly though, the trader's risk is limited to 8.70 points no matter how far the CME S&P 500 futures may decline.



Strategy B:

Buying put options to profit from declining live cattle prices

Example:

Cattle-Live (CME) 40,000 lbs.; cents per lb.

Strike Price	Calls-Settle			Puts-Settle		
	Jun-c	Aug-c	Oct-c	Jun-p	Aug-c	Oct-p
80	3.72	2.92	5.02	0.02	0.55	0.52
82	1.87	1.57	3.45	0.17	1.17	0.90
84	0.47	0.72	2.10	0.77	2.27	1.50
86	0.10	0.27	1.15	2.40	–	2.50
88	0.00	0.10	0.55	–	–	–
90.00	–	0.22	–	–		

Est. vol. 2,577, Mon. vol. 483 calls, 547 puts

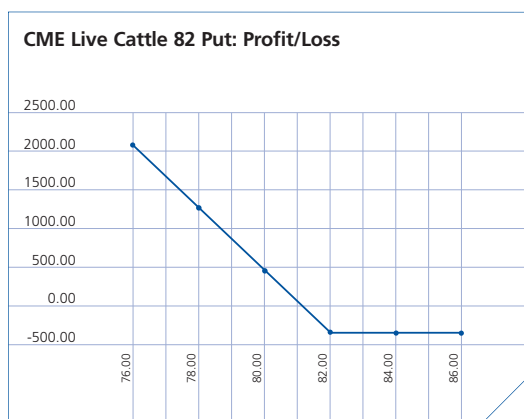
Open interest Mon.; 26,617 calls, 35,197 puts

Outlook: A speculator thinks cattle prices will retreat from recent highs. He wants to avoid the unlimited risk associated with selling futures short.

Futures price:	October CME Live Cattle futures @ 84.60
Strategy:	Purchase October 82 CME Live Cattle put option @ .90 (Actual dollar amount: .90 cents/lb. x 40,000 lbs. = \$360.00)
Breakeven point:	81.10 cents/lb. (strike price - premium)
Risk:	Limited to premium paid: .90 cents/lb. or \$360.00

Profit/Loss at expiration:

Futures Price	Put Price	Profit/Loss
76.00	6.00	+ 5.10 (2040.00)
78.00	4.00	+ 3.10 (1240.00)
80.00	2.00	+ 1.10 (440.00)
82.00	0.00	- .90 (360.00)
84.00	0.00	- .90 (360.00)
86.00	0.00	- .90 (360.00)



Futures Prices and Profits/Losses

The graph above again demonstrates one of the prime advantages of buying options on futures. If the trader were wrong and CME Live Cattle futures advanced sharply, his risk would be limited to the .90 cents/lb. premium he paid. And, if his analysis were correct, he could realize substantial profits on a relatively small investment.

Strategy C:

Straddles Using Options on CME E-mini S&P 500 futures

Outlook: Although a trader believes that volatility, currently at eight-year lows, will rise in the coming months, he is not sure of the direction of the underlying S&P 500 index.

Strategy: Trader decides to go long the March 1200 straddle (i.e., the at-the-money straddle using options on CME E-mini S&P 500 futures. He/she will thus go long the March 1200 call option and the March 1200 put option.

Strike	March Calls	March Puts
1190	34.10	25.50
1195	31.25	27.75
1200	28.25	29.75
1205	25.75	32.00
1210	23.25	34.50

March CME E-mini S&P 500 price: 1198.75

Cost of straddle: 58.30 pts (Call premium + Put premium)

Upside breakeven: $1200 + 58.00 = 1258.00$

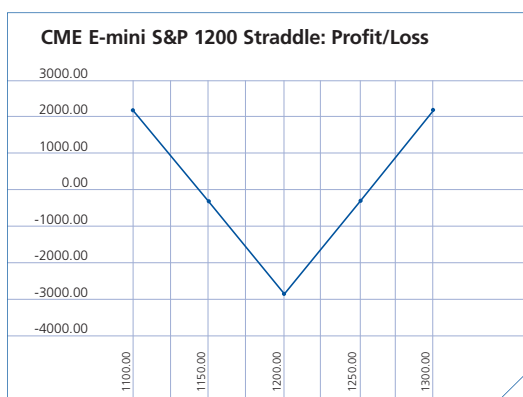
Downside breakeven: $1200 - 58.00 = 1142.00$

Maximum loss: 58.00 (limited to premium paid)

Point of maximum loss: 1200 (put and call become worthless at expiration)

Profit/Loss at Expiration

March Futures Price	1200 Call Price	1200 Put Price	Straddle Price	Total +/-
1100	0	100	100	+42.00
1150	0	50	50	- 8.00
1200	0	0	0	- 58.00
1250	50	0	50	- 8.00
1300	100	0	100	+42.00



Straddles are designed to turn a profit as long as the underlying futures contract has a large enough move to cover the cost of the call and the put. In this case, the futures must move at least 58.00 pts. (the direction does not matter) to attain break even. Hence, any move above 1258 or below 1142 will allow the trader to profit. Clearly, options offer a myriad of strategies to take advantage of all sorts of market conditions.

A Word About Selling Options on Futures

This booklet has emphasized the advantages of a limited risk investment involved in purchasing options on futures. As discussed earlier, if someone buys an option on a futures contract, there must be a seller on the other side of the trade. While selling options on futures can also be a profitable strategy, it must be stressed that it entails substantially more risk than buying options on futures. An individual who sells options on futures has the potential to lose large sums of money. The strategy should therefore only be initiated by individuals who fully understand options on futures as well as the considerable risk associated with option selling, and who can meet the financial requirements.

6. Review Questions

(Select all answers that are correct for each question)

1. Which of the following best describes options on futures?

- A** the right to buy or sell a futures contract
- B** the right to take delivery of a cash commodity
- C** the right to assign a futures contract

2. A put option is:

- A** the other side of a call option position
- B** the right to buy a futures contract
- C** the right to sell a futures contract

3. A call option is:

- A** the other side of a put option transaction
- B** the same as a short futures position
- C** the right to go long a futures contract

4. Options on futures are:

- A** usually offset before expiration
- B** wasting assets
- C** traded on regulated commodity exchanges such as CME

5. The premium of an option is:

- A** set by the exchange staff
- B** unaffected by futures prices
- C** determined by buyers and sellers reflecting supply and demand

6. The exercise price is:

- A** the number of days remaining in the life of an option
- B** the number of contracts you can exercise
- C** the price at which the option holder may go long (calls) or short (puts) the underlying futures

7. The different strike prices are set by:

- A** option sellers
- B** option buyers
- C** the Exchange

8. Intrinsic value for call options is calculated by:

- A** futures price minus the exercise price
- B** exercise price minus the futures price
- C** futures price minus the call premium

9. The breakeven point for a call option purchase is:

- A** strike price plus days to expiration
- B** futures price plus the call option premium
- C** strike price plus the call option premium

10. Options can be used by:

- A** speculators desiring to profit from a market move with limited risk
- B** hedgers wishing to protect themselves against adverse price moves
- C** anyone knowledgeable in finance

11. Sellers of options:

- A** should be aware of the risks involved with selling options
- B** can lose large sums of their trading capital
- C** must meet performance bond requirements

12. To take advantage of a rising market one could:

- A** sell call options on futures
- B** buy call options on futures
- C** sell futures contracts

13. If a trader pays 4.00 pts. for an option on the CME S&P 500 futures, the most he or she could lose is:

- A** 4.00 pts.
- B** 8.00 pts.
- C** losses could be unlimited

14. A speculator who is considering the purchase of a put option will:

- A** pay the entire premium up front
- B** put up performance bond funds
- C** profit if the market advances on him

15. CME offers options on:

- A** equity products
- B** foreign currency products
- C** livestock products
- D** interest rate products

16. If one exercises a call option on a futures contract, the resulting position will be:

- A** a long futures
- B** a short futures
- C** a neutral position

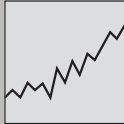
Answers to review questions:

- | | | | | |
|-------------|-------------------|-------------|--------------------|-----------------------|
| 1. A | 4. A, B, C | 7. C | 10. A, B | 13. A |
| 2. C | 5. C | 8. A | 11. A, B, C | 14. A |
| 3. C | 6. C | 9. C | 12. B | 15. A, B, C, D |
| | | | | 16. A |

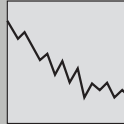
Basic Option Strategies

Initiating a Market Position

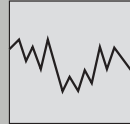
BULLISH



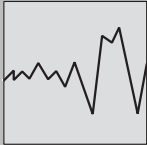
BEARISH



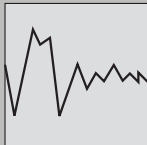
UNDECIDED



VOLATILITY
RISING



VOLATILITY
FALLING

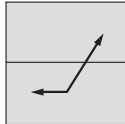


VOLATILITY
UNDECIDED



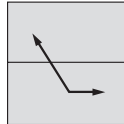
**LONG
CALL**

Buy a call



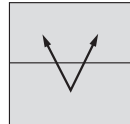
**LONG
PUT**

Buy a put



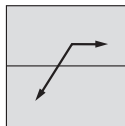
**LONG
STRADDLE**

Buy a call and
buy a put at
same strike



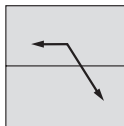
**SHORT
PUT**

Sell a put



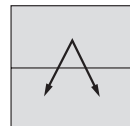
**SHORT
CALL**

Sell a call



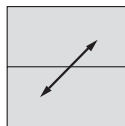
**SHORT
STRADDLE**

Sell a call and
sell a put at
same strike



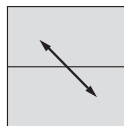
**LONG
FUTURES**

Buy a futures



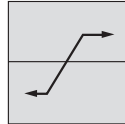
**SHORT
FUTURES**

Sell a futures



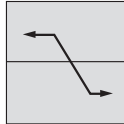
**BULL
SPREAD**

Buy a call and
sell a call at a
higher strike/
or/Buy a put
and sell a put
at a higher strike



**BEAR
SPREAD**

Buy a put and
sell a put at a
lower strike /
or/Buy a call
and sell a call
at a lower strike



Sources of Additional Information

For more information about options on futures and the important opportunities they provide, contact your futures broker. Together, you can determine what role options should play in your investment strategy.

You may also wish to enroll in one or more classes offered by the CME Education Department. A number of options-related classes are offered, both online and in classrooms. For more information, please go to the education section of the CME Web site, www.cme.com.

This brochure is intended as a discussion of the use of options on futures. It was not prepared to meet the Commodity Futures Trading Commission requirements for a disclosure statement about the risks of trading options on futures contracts. That statement must be furnished by your broker.

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PROVEN STRATEGIES
for trading options on CME Group futures



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A CME/Chicago Board of Trade/NYMEX Company

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With more than 2.2 billion contracts (valued at \$1.1 quadrillion) traded in 2007, CME Group is the world's largest and most diverse derivatives exchange. Building on the heritage of CME, CBOT and NYMEX, CME Group serves the risk management needs of customers around the globe. As an international marketplace, CME Group brings buyers and sellers together on the CME Globex electronic trading platform and on trading floors in Chicago and New York. CME Group offers the widest range of benchmark products available across all major asset classes, including futures and options based on interest rates, equity indexes, foreign exchange, energy, agricultural commodities, metals, and alternative investment products such as weather and real estate.

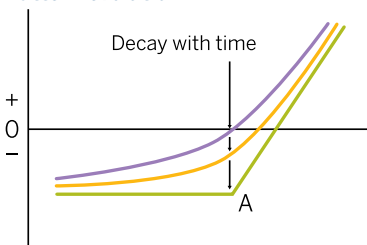
Options on futures rank among our most versatile risk management tools, and we offer them on most of our products. Whether you trade options for purposes of hedging or speculating, you can limit your risk to the amount you paid up-front for the option while maintaining your exposure to beneficial price movements.

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HOW TO USE THIS BOOKLET

Pattern evolution:



Each illustration demonstrates the effect of time decay on the total option premium involved in the position. The left vertical axis shows the profit/loss scale. The horizontal zero line in the middle is the break-even point, not including commissions. Therefore, anything above that line indicates profits, anything below it, losses. The price of the underlying instrument is represented along the bottom. “A,” “B” and “C” in the diagrams indicate the strike prices. The arrows show the impact of time decay on an option.

Arrows on the diagram under the heading of “Pattern Evolution” indicate what impact the decay of option prices with time has on the total position. The purple line reflects the situation with four months left until expiration, the gold line the status with one month left and the green line the situation at expiration.

For more information,
go to www.cmegroup.com/options.

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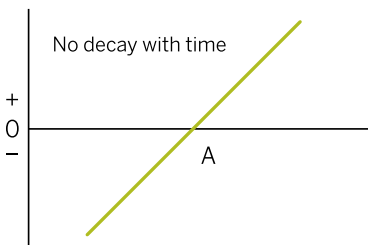
Long Futures	1
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Short Synthetic Futures	4
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1



LONG FUTURES

Pattern evolution:



When to use: When you are bullish on the market and uncertain about volatility. You will not be affected by volatility changing. However, if you have an opinion on volatility and that opinion turns out to be correct, one of the other strategies may have greater profit potential and/or less risk.

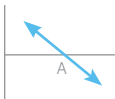
Profit characteristics: Profit increases as market rises. Profit is based strictly on the difference between the exit price and the entry price.

Loss characteristics: Loss increases as market falls. Loss is based strictly on the difference between the exit price and the entry price.

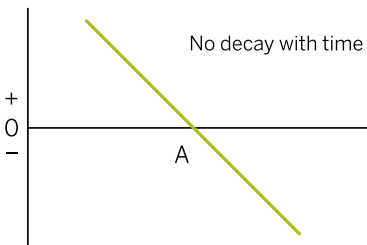
Decay characteristics: None.

CATEGORY: Directional

SYNTHETICS: Long call A, short put A



Pattern evolution:



When to use: When you are bearish on the market and uncertain about volatility. You will not be affected by volatility changing. However, if you have an opinion on volatility and that opinion turns out to be correct, one of the other strategies may have greater profit potential and/or less risk.

Profit characteristics: Profit increases as market falls. Profit is based strictly on the difference between the entry price and the exit price.

Loss characteristics: Loss increases as market rises. Loss is based strictly on the difference between the entry price and the exit price.

Decay characteristics: None.

CATEGORY: Directional

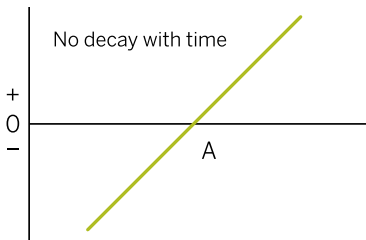
SYNTHETICS: Long put A, short call A

3



LONG SYNTHETIC FUTURES

Pattern evolution:



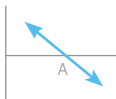
When to use: When you are bullish on the market and uncertain about volatility. You will not be affected by volatility changing. However, if you have an opinion on volatility and that opinion turns out to be correct, one of the other strategies may have greater profit potential and/or less risk. May be traded into from initial long call or short put position to create a stronger bullish position.

Profit characteristics: Profit increases as market rises. Profit is based strictly on the difference between the exit price and the synthetic entry price.

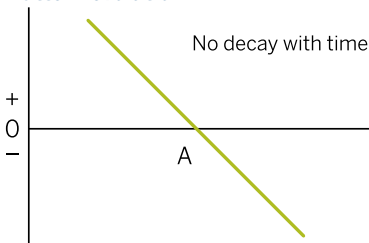
Loss characteristics: Loss increases as market falls. Loss is based strictly on the difference between the exit price and the synthetic entry price.

Decay characteristics: None.

CATEGORY: Directional
Long call A, short put A



Pattern evolution:



When to use: When you are bearish on the market and uncertain about volatility. You will not be affected by volatility changing. However, if you have an opinion on volatility and that opinion turns out to be correct, one of the other strategies may have greater profit potential and/or less risk. May be traded into from initial short call or long put position to create a stronger bearish position.

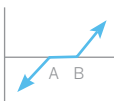
Profit characteristics: Profit increases as market falls. Profit is based strictly on the difference between the synthetic entry price and the exit price.

Loss characteristics: Loss increases as market rises. Loss is based strictly on the difference between the synthetic entry price and the exit price.

Decay characteristics: None.

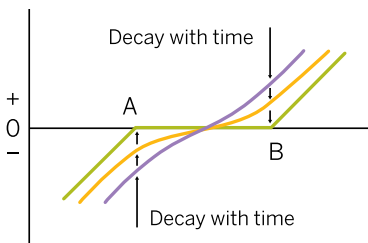
CATEGORY: Directional
Long put A, short call A

5



LONG RISK REVERSAL (AKA SQUASH OR COMBOS) (SPLIT STRIKE)

Pattern evolution:



When to use: When you are bullish on the market and uncertain about volatility. Normally this position is initiated as a follow-up to another strategy. Its risk/reward is the same as a LONG FUTURES except that there is a flat area of little or no gain/loss.

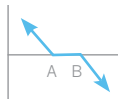
Profit characteristics: Profit increases as market rises above the long call strike price. Profit at expiration is open-ended and is based on the exercise price of B +/– price received or paid to initiate position.

Loss characteristics: Loss increases as market falls below the short put. Loss at expiration is open-ended and is based on the exercise price of A +/– premium received or paid to initiate position.

Decay characteristics: Time decay characteristics vary according to the relationship of the call strike price, put strike price and the underlying futures price at the time the position is established. The position is time decay neutral (not affected) if the futures price is exactly mid-way between the call and put strike prices; long time decay (benefits from time decay) when the futures price is closer to the call than the put strike price and short time decay (time decay erodes the value of the position) when the futures price is closer to the put than the call strike price.

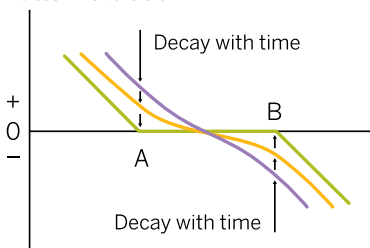
CATEGORY: Directional
Long call B, short put A

SHORT RISK REVERSAL (AKA SQUASH OR COMBOS) (SPLIT STRIKE)



6

Pattern evolution:



When to use: When you are bearish on the market and uncertain about volatility. Normally this position is initiated as a follow-up to another strategy. Its risk/reward is the same as a SHORT FUTURES except that there is a flat area of little or no gain/loss.

Profit characteristics: Profit increases as market falls below the long put strike price. Profit at expiration open-ended and is based on the exercise price of A +/- premium received or paid to initiate position.

Loss characteristics: Loss increases as market rises above the short call. Loss at expiration is open-ended and is based on the exercise price of B +/- premium received or paid to initiate position.

Decay characteristics: Time decay characteristics vary according to the relationship of the call strike price, put strike price and the underlying futures price at the time the position is established. The position is time decay neutral (not affected) if the futures price is exactly mid-way between the call and put strike prices; long time decay (benefits from time decay) when the futures price is closer to the put than the call strike price and short time decay (time decay erodes the value of the position) when the futures price is closer to the call than the put strike price.

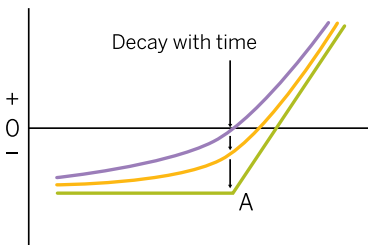
CATEGORY: Directional
Long put A, short call B

7



LONG CALL

Pattern evolution:



When to use: When you are bullish to very bullish on the market. In general, the more out-of-the-money (higher strike) calls, the more bullish the strategy.

Profit characteristics: Profit increases as market rises. At expiration, break-even point will be call option exercise price A + price paid for call option.

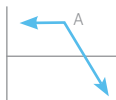
Loss characteristics: Loss limited to amount paid for option. Maximum loss realized if market ends below option exercise A .

Decay characteristics: Position is a wasting asset. As time passes, value of position erodes toward expiration value.

CATEGORY: Directional

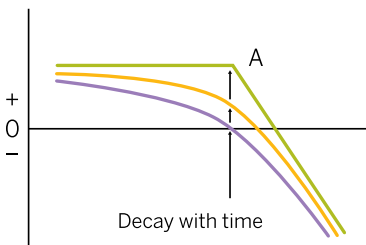
SYNTHETICS: Long instrument, long put

SHORT CALL



8

Pattern evolution:



When to use: When you are bearish on the market. Sell out-of-the-money (higher strike) puts if you are less confident the market will fall: sell at-the-money puts if you are confident the market will stagnate or fall.

Profit characteristics: Profit limited to premium received. At expiration, break-even is exercise price A + premium received. Maximum profit realized if market settles at or below A .

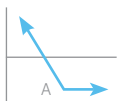
Loss characteristics: Loss potential is open-ended. Loss increases as market rises. At expiration, losses increase by one point for each point market is above break-even. Because risk is open-ended, position must be watched closely.

Decay characteristics: Position benefits from time decay. The option seller's profit increases as option loses its time value. Maximum profit from time decay occurs if option is at-the-money.

CATEGORY: Directional

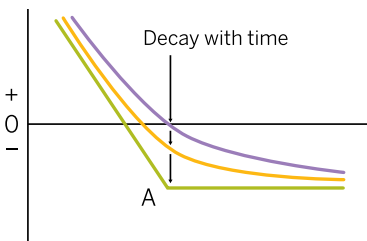
SYNTHETICS: Short instrument, short put

9



LONG PUT

Pattern evolution:



When to use: When you are bearish to very bearish on the market. In general, the more out-of-the-money (lower strike) the put option strike price, the more bearish the strategy.

Profit characteristics: Profit increases as markets falls. At expiration, break-even point will be option exercise price A – price paid for option. For each point below break-even, profit increases by additional point.

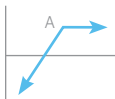
Loss characteristics: Loss limited to amount paid for option. Maximum loss realized if market ends above option exercise A .

Decay characteristics: Position is a wasting asset. As time passes, value of position erodes toward expiration value.

CATEGORY: Directional

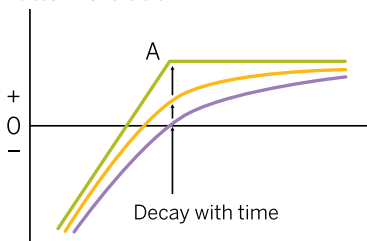
SYNTHETICS: Short instrument, long call

SHORT PUT



10

Pattern evolution:



When to use: If you firmly believe the market is not going down. Sell out-of-the-money (lower strike) options if you are only somewhat convinced: sell at-the-money options if you are very confident the market will stagnate or rise. If you doubt market will stagnate and are more bullish, sell in-the-money options for maximum profit.

Profit characteristics: Profit limited to premium received from put option sale. At expiration, break-even point is exercise price A – premium received. Maximum profit realized if market settles at or above A .

Loss characteristics: Loss potential is open-ended. Loss increases as market falls. At expiration, losses increase by one point for each point market is below breakeven. Because risk is open-ended, position must be watched closely.

Decay characteristics: Position benefits from time decay. The option seller's profit increases as option loses its time value. Maximum profit from time decay occurs if option is at-the-money.

CATEGORY: Directional

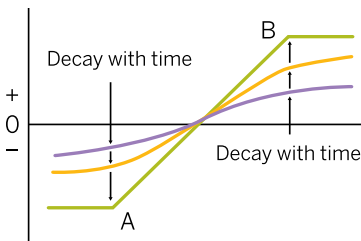
SYNTHETICS: Long instrument, short call

11



BULL SPREAD

Pattern evolution:



When to use: If you think the market will go up, but with limited upside. Good position if you want to be in the market but are less confident of bullish expectations. You're in good company. This is the most popular bullish trade.

Profit characteristics: Profit limited, reaching maximum if market ends at or above strike price B at expiration. If call-vs.-call version (most common) used, break-even is at $A + \text{net cost of spread}$. If put-vs.-put version used, break-even is at $B - \text{net premium collected}$.

Loss characteristics: What is gained by limiting profit potential is mainly a limit to loss if you guessed wrong on market. Maximum loss if market at expiration is at or below A. With call-vs.-call version, maximum loss is net cost of spread.

Decay characteristics: If market is midway between A and B, little if any time decay effect. If market is closer to B, time decay is generally a benefit. If market is closer to A, time decay is generally detrimental to profitability.

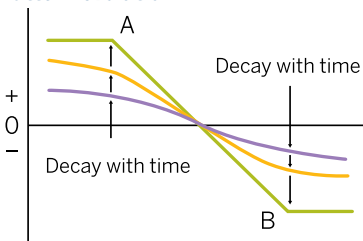
CATEGORY: Directional
Long call A, short call B
Long put A, short put B

BEAR SPREAD



12

Pattern evolution:



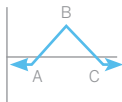
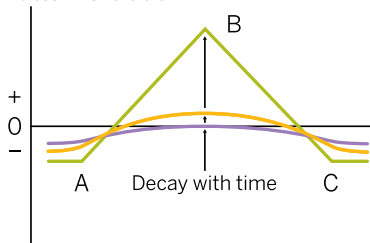
When to use: If you think the market will go down, but with limited downside. Good position if you want to be in the market but are less confident of bearish expectations. The most popular position among bears because it may be entered as a conservative trade when uncertain about bearish stance.

Profit characteristics: Profit limited, reaching maximum at expiration if market is at or below strike price A. If put-vs.-put version (most common) used, break-even is at B – net cost of spread. If call-vs.-call version, break-even is at A + net premium collected.

Loss characteristics: By accepting a limit on profits, you also achieve a limit on losses. Losses, at expiration, increase as market rises to B, where they are at a maximum. With put-vs.-put version, maximum loss is net cost of spread.

Decay characteristics: If market is midway between A and B, little if any time decay effect. If market is closer to A, time decay is generally a benefit. If market is closer to B, time decay is generally detrimental to profitability.

CATEGORY: Directional
Short put A, long put B
Short call A, long call B

**Pattern evolution:**

When to use: One of the few positions which may be entered advantageously in a long-term options series. Enter when, with one month or more to go, cost of the spread is 10 percent or less of $B - A$ (20 percent if a strike exists between A and B). This is a rule of thumb; check theoretical values.

Profit characteristics: Maximum profit occurs if a market is at B at expiration. That profit would be $B - A - \text{net cost of spread}$. This profit develops, almost totally, in the last month.

Loss characteristics: Maximum loss, in either direction, is cost of spread. A very conservative trade, break-evens are at $A + \text{cost of spread}$ and at $C - \text{cost of spread}$.

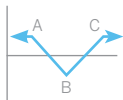
Decay characteristics: Decay negligible until final month, during which distinctive pattern of butterfly forms. Maximum profit growth is at B. If you are away from (A-C) range entering the last month, you may wish to liquidate position.

CATEGORY: Precision

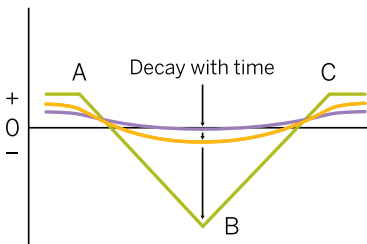
Long call A, short 2 calls B, long call C

Long put A, short 2 puts B, long put C

(Note: $B - A$ generally is equal to $C - B$)



Pattern evolution:



When to use: When the market is either below A or above C and position is overpriced with a month or so left. Or when only a few weeks are left, market is near B, and you expect an imminent move in either direction.

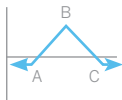
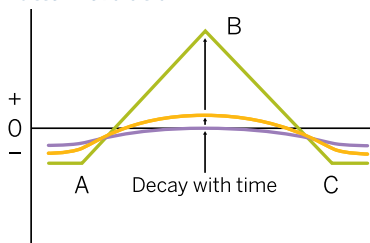
Profit characteristics: Maximum profit equals the credit at which spread is established. Occurs when market, at expiration, is below A or above C, thus making all options in-the-money or all options out-of-the-money.

Loss characteristics: Maximum loss occurs if market is at B at expiration. Amount of that loss is $B - A - \text{credit received when setting up position}$. Break-evens are at $A + \text{initial credit}$ and $C - \text{initial credit}$.

Decay characteristics: Decay negligible until final month, during which distinctive pattern of butterfly forms. Maximum loss acceleration is at B.

CATEGORY: Precision

Short call A, long 2 calls B, short call C
Short put A, long 2 puts B, short put C
(Note: $B - A$ generally is equal to $C - B$)

**Pattern evolution:**

When to use: One of the few positions which may be entered advantageously in a long-term options series. Enter when, with one month or more to go, cost of the spread is 10 percent or less of $B - A$ (20 percent if a strike exists between A and B). This is a rule of thumb; check theoretical values.

Profit characteristics: Maximum profit occurs if a market is at B at expiration. Profit would be equal to short straddle premium minus long strangle premium. This profit develops, almost totally, in the last month.

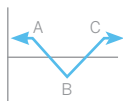
Loss characteristics: Maximum loss, in either direction, net premium collected minus $(B - A)$. This is a very conservative trade, break-evens are at $B +$ and $-$ net premium collected.

Decay characteristics: Decay negligible until final month, during which distinctive pattern of butterfly forms. Maximum profit growth is at B. If you are away from $(A - C)$ range entering the last month, you may wish to liquidate position.

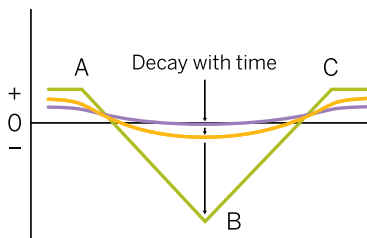
CATEGORY: Precision

Short 1 call and 1 put at B, buy 1 put at A, buy 1 call at C or sell straddle at strike price A and buy strangle at AC for protection

(Note: $B - A$ generally is equal to $C - B$)



Pattern evolution:



When to use: When the market is either below A or above C and position is overpriced with a month or so left. Or when only a few weeks are left, market is near B, and you expect an imminent breakout move in either direction.

Profit characteristics: Maximum profit equals $(B - A)$ less the net debit to create the position. Occurs when market, at expiration, is below A or above C.

Loss characteristics: Maximum loss occurs if market is at B at expiration. Amount of that loss is net debit to create the position. Break-evens are at $B +$ and $-$ initial debit.

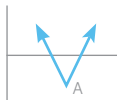
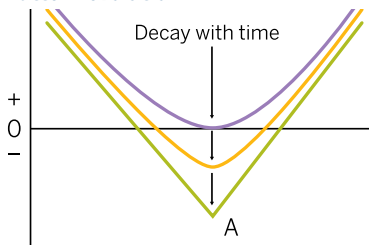
Decay characteristics: Decay negligible until final month, during which distinctive pattern of butterfly forms. Maximum profit growth is at B. If you are away from $(A-C)$ range entering last month, you may wish to liquidate position.

CATEGORY: Precision

Long straddle B, short strangle at AC

Short put A, long put B, long call B, short call C

(Note: $B - A$ generally is equal to $C - B$)

**Pattern evolution:**

When to use: If market is near A and you expect it to start moving but are not sure which way. Especially good position if market has been quiet, then starts to zigzag sharply, signaling potential eruption.

Profit characteristics: Profit open-ended in either direction. At expiration, break-even is at A, \pm cost of spread. However, position is seldom held to expiration because of increasing time decay with passage of time.

Loss characteristics: Loss limited to the cost of spread. Maximum loss occurs if market is at A at expiration.

Decay characteristics: Time decay accelerates as options approach expiration. Position is generally liquidated well before expiration.

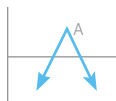
CATEGORY: Precision

Long call A, long put A

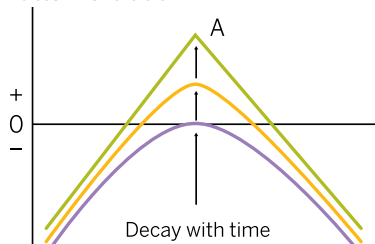
SYNTHETICS: Long 2 calls A, short instrument

Long 2 puts A, long instrument

(All done to initial delta neutrality. A delta neutral spread is a spread established as a neutral position by using the deltas of the options involved. The neutral ratio is determined by dividing the delta of the purchased option by the delta of the written option)



Pattern evolution:



When to use: If market is near A and you expect market is stagnating. Because you are short options, you reap profits as they decay – as long as market remains near A.

Profit characteristics: Profit maximized if market, at expiration, is at A. In call-put scenario (most common), maximum profit is equal to the credit from establishing position; break-even is $A \pm \text{total credit}$.

Loss characteristics: Loss potential open-ended in either direction. Position, therefore, must be closely monitored and readjusted to delta neutral if market begins to drift away from A.

Decay characteristics: Because you are only short options, you pick up time-value decay at an increasing rate as expiration approaches. Time decay is maximized if market is near A.

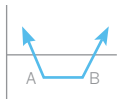
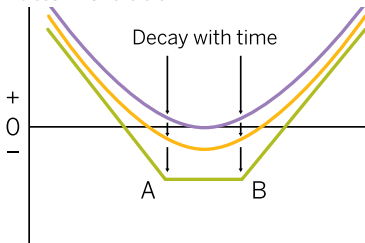
CATEGORY: Precision

Short call A, short put A

SYNTHETICS: Short 2 calls A, long instrument

Short 2 puts A, short instrument

(All done to initial delta neutrality)

**Pattern evolution:**

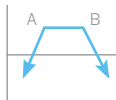
When to use: If market is within or near (A-B) range and has been stagnant. If market explodes either way, you make money; if market continues to stagnate, you lose less than with a long straddle. Also useful if implied volatility is expected to increase.

Profit characteristics: Profit open-ended in either direction. Break-even levels are at $A - \text{cost of spread}$ and $B + \text{cost of spread}$. However, spread is usually not held to expiration.

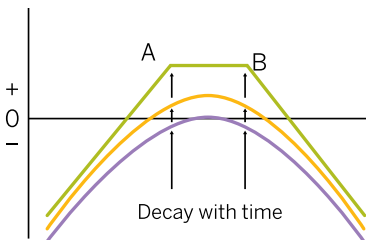
Loss characteristics: Loss limited. Loss is equal to net cost of position. Maximum loss occurs if, at expiration, market is between A and B.

Decay characteristics: Decay accelerates as options approach expiration but not as rapidly as with long straddle. To avoid largest part of decay, the position is normally liquidated prior to expiration.

CATEGORY: Precision
Long put A, long call B
(Generally done to initial delta neutrality)



Pattern evolution:



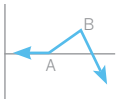
When to use: If market is within or near (A-B) range and, though active, is quieting down. If market goes into stagnation, you make money; if it continues to be active, you have a bit less risk than with a short straddle.

Profit characteristics: Maximum profit equals option premium collected. Maximum profit realized if market, at expiration, is between A and B.

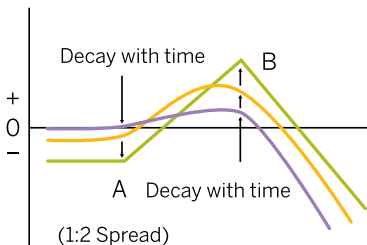
Loss characteristics: At expiration, losses occur only if market is above $B + \text{option premium collected}$ (for put-call) or below $A - \text{that amount}$. Potential loss is open-ended. Although less risky than short straddle, position is risky.

Decay characteristics: Because you are short options, time value decays at an increasing rate as the option expiration date approaches; maximized if market is within A-B range.

CATEGORY: Precision
Short put A, short call B
(All done to initial delta neutrality)



Pattern evolution:



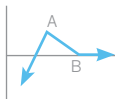
When to use: Usually entered when market is near A and user expects a slight to moderate rise in market but sees a potential for sell-off. One of the most common option spreads, seldom done more than 1:3 (two excess shorts) because of upside risk.

Profit characteristics: Maximum profit, is equal to $B - A -$ net cost of position (for call-vs.-call version), realized if market is at B at expiration or $B - A +$ net credit of position (if long option premium is less than premium collected from the sale of two or more options).

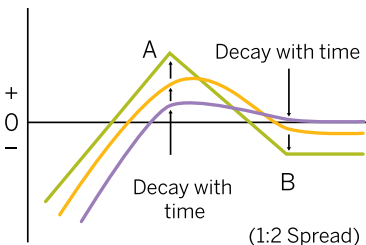
Loss characteristics: Loss limited on downside (to net cost of position in call-vs.-call, or no loss if position established at a credit) but open-ended if market rises. Rate of loss, if market rises beyond strike price B, is proportional to number of excess shorts in position.

Decay characteristics: Depends on the net time value purchased or sold via this strategy. If more time value sold than bought, then time value decays works to the benefit of the holder of this strategy.

CATEGORY: Precision
Long call A, short calls B
For example long 1 call @ A; short 2 calls @ B



Pattern evolution:



When to use: Usually entered when market is near B and you expect market to fall slightly to moderately, but see a potential for sharp rise. One of the most common option spreads, seldom done more than 1:3 (two excess shorts) because of downside risk.

Profit characteristics: Maximum profit in amount of $B - A$ – net cost of position (for put-vs.-put version), realized if market is at A at expiration, or $B - A +$ net credit of position (if long option premium is less than premium collected from the sale of two or more options).

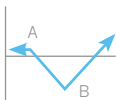
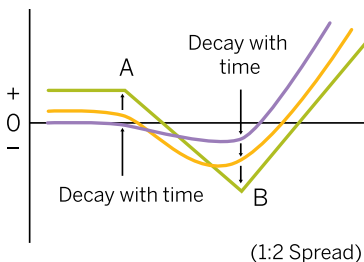
Loss characteristics: Loss limited on upside (to net cost of position in put-vs.-put version, or no loss if position established at a credit) but open-ended if market falls. Rate of loss, if market falls below strike price A, is proportional to number of excess shorts in position.

Decay characteristics: Dependent on the net time value purchased or sold via this strategy. If more time value sold than bought, then time value decays works to the benefit of the holder.

CATEGORY: Precision

Long put B, short puts A

For example long 1 put @ B; short 2 puts @ A

**Pattern evolution:**

When to use: Normally entered when market is near B and shows signs of increasing activity, with greater probability to upside.

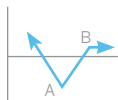
Profit characteristics: Profit limited on downside (if net credit taken in when position was established) but open ended in rallying market.

Loss characteristics: Maximum loss, is amount of $B - A$ – initial credit (or $B - A + \text{initial debit}$), is realized if market is at B at expiration. This loss is less than for equivalent long straddle, the trade-off for sacrificing profit potential on the downside.

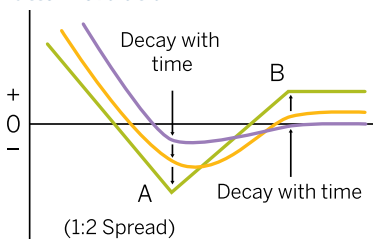
Decay characteristics: Dependent on the net time value purchased or sold via this strategy. If more time value sold than bought, then time value decays works to the benefit of the holder.

CATEGORY: Precision

Short call A, long 2 or more calls B



Pattern evolution:



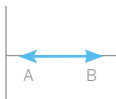
When to use: Normally entered when market is near A and shows signs of increasing activity, with greater probability to downside (for example, if last major move was up, followed by stagnation).

Profit characteristics: Profit limited on upside (to net credit taken in when position was established) but open ended in collapsing market.

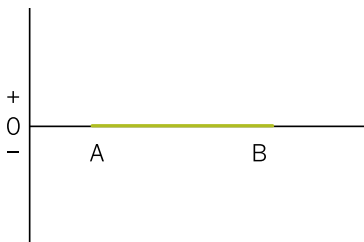
Loss characteristics: Maximum loss, is amount of $B - A$ - initial credit (or $B - A +$ initial debit), realized if market is at A at expiration. This loss is less than for the equivalent long straddle, the trade-off for sacrificing profit potential on the upside.

Decay characteristics: Dependent on the net time value purchased or sold via this strategy. If more time value sold than bought, then time value decays works to the benefit of the holder.

CATEGORY: Precision
Short 1 put B, long 2 or more puts A



Pattern evolution:



When to use: Occasionally, a market will get out of line enough to justify an initial entry into one of these positions. However, they are most commonly used to “lock” all or part of a portfolio by buying or selling to create the missing “legs” of the position. These are alternatives to closing out positions at possibly unfavorable prices.

Long box: Long a bull spread, long a bear spread — that is, long call A, short call B, long put B, short put A. Value = $B - A$ - Net Debit.

Short box: Long call B, short call A, long put A, short put B. Value = Net Credit + $(A - B)$.

Long-instrument conversion: Long instrument, long put A, short call A. Value = 0. “Price” = instrument + put - A - call.

Short-instrument conversion: Short instrument, long call A, short put A. Value = 0. “Price” = A + call - instrument - put.

CATEGORY: Locked or arbitrage trade.

These spreads are referred to as “locked trades” because their value at expiration is totally independent of the price of the underlying instrument. If you can buy them for less than that value or sell them for more, you will make a profit (ignoring commission costs).

For more information,
go to www.cmegroup.com/options.

Trading futures and options on futures is not suitable for all investors, and involves risk of loss. Futures are a leveraged instrument, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money initially deposited for a futures product.

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