CBOE

CHICAGO BOARD OPTIONS EXCHANGE

Cross-Index Spreads

Strategies – Opportunities – Challenges

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The Options Institute at CBOE

Disclaimer

In order to simplify the computations, commissions have not been included in the examples used in these materials. Commission costs will impact the outcome of all stock and options transactions and must be considered prior to entering into any transactions.

Any strategies discussed, including examples using actual indexes and price data, are strictly for illustrative and educational purposes only and are not to be construed as an endorsement, recommendation, or solicitation to buy or sell securities.

Options involve risks and are not suitable for everyone. Prior to buying or selling an option, an investor must receive a copy of Characteristics and Risks of Standardized Options. Copies may be obtained from your broker or from The Chicago Board Options Exchange, 400 S. LaSalle, Chicago, IL 60605. Investors considering options should consult their tax advisor as to how taxes may affect the outcome of contemplated options transactions.

Session Outline

- What are XSP options?
- Why bother?
- Indexes tend to move together
- Brief review of vertical spreads
- 4 Cross-Index Spread Strategies

What are XSP Options?

- Mini-SPX options
- Options on the S&P 500 Stock Index
- 1/10th the size of SPX options
- Trade like SPY options
  - Dollar strikes
  - Penny prices

Why XSP Options?

- Cash settled
- European-style exercise
- 60-40 tax treatment

Cash Settlement

- In-the-money options settled in cash
  - Option owners (long) receive cash
  - Option writers (short) pay cash
- No risk of portfolio disruption
- The last trading day is <u>Thursday</u>
  - Final settlement calculated Friday a.m.

European-Style Exercise

- Cannot be exercised prior to expiration
  - (can be traded, but not exercised)
- No risk of the short option in a spread being assigned early

“60-40” Tax Treatment

- Section 1256 Contracts: regardless of holding period, profits and losses are treated as 60% long-term and 40% short-term.
- Reported on Form 6781 and Schedule D
- Positions are “marked to market” at year end and taxed as if closed. Year-end prices become basis for next year.

* According to Taxes and Investing, published by The Options Industry Council, available from http://www.cboe.com/LearnCenter/RCGeneral.asp
Note: IRS regulations may change. Seek professional tax advice.

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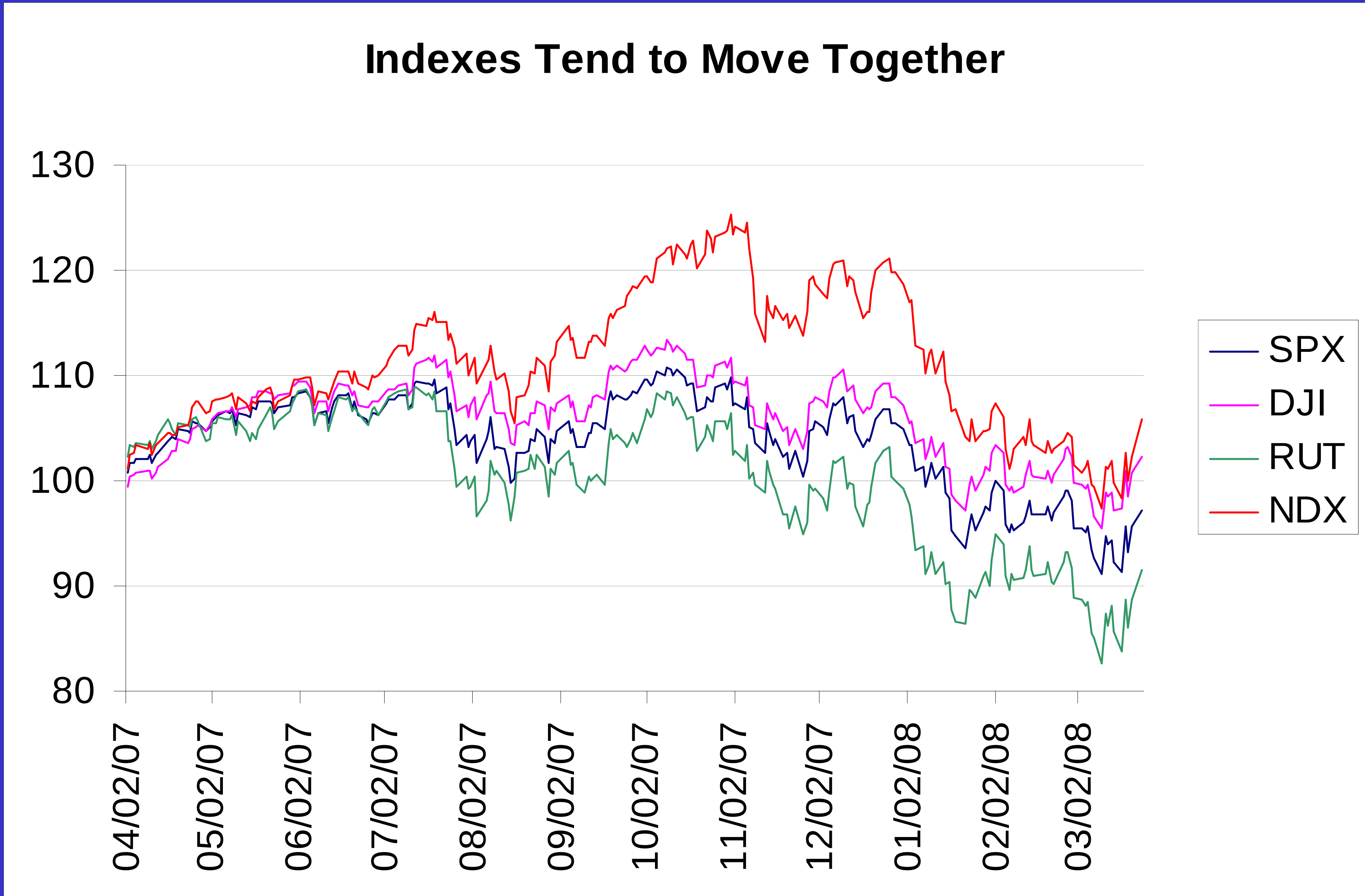
Cross-Index Spreads

Step #1:

Look for Index Correlation



Indexes Tend to Move Together
130
120
110
100
90
80
04/02/07
05/02/07
06/02/07
07/02/07
08/02/07
09/02/07
10/02/07
11/02/07
12/02/07
01/02/08
02/02/08
03/02/08
SPX
DJI
RUT
NDX

Indexes Tend to Move Together 1

7/19 – 8/17 2007		9/20 – 10/19 2007	
SPX	– 6.9%	SPX	– 2.7%
DJIA	– 6.6%	DJIA	– 2.6%
RUT	– 7.7%	RUT	– 3.6%
NDX	– 8.0%	NDX	– 3.8%

Indexes Tend to Move Together 2

3/13 – 4/19 2007		11/21 – 12/21 2007	
SPX	+ 6.7%	SPX	+ 4.7%
DJIA	+ 6.1%	DJIA	+ 5.1%
RUT	+ 5.2%	RUT	+ 6.2%
NDX	+ 6.4%	NDX	+ 5.3%

But NOT Always!

4/24 – 5/18 2007

SPX	+ 2.9%
DJIA	+ 4.6%
RUT	– 0.2%
NDX	+ 2.0%

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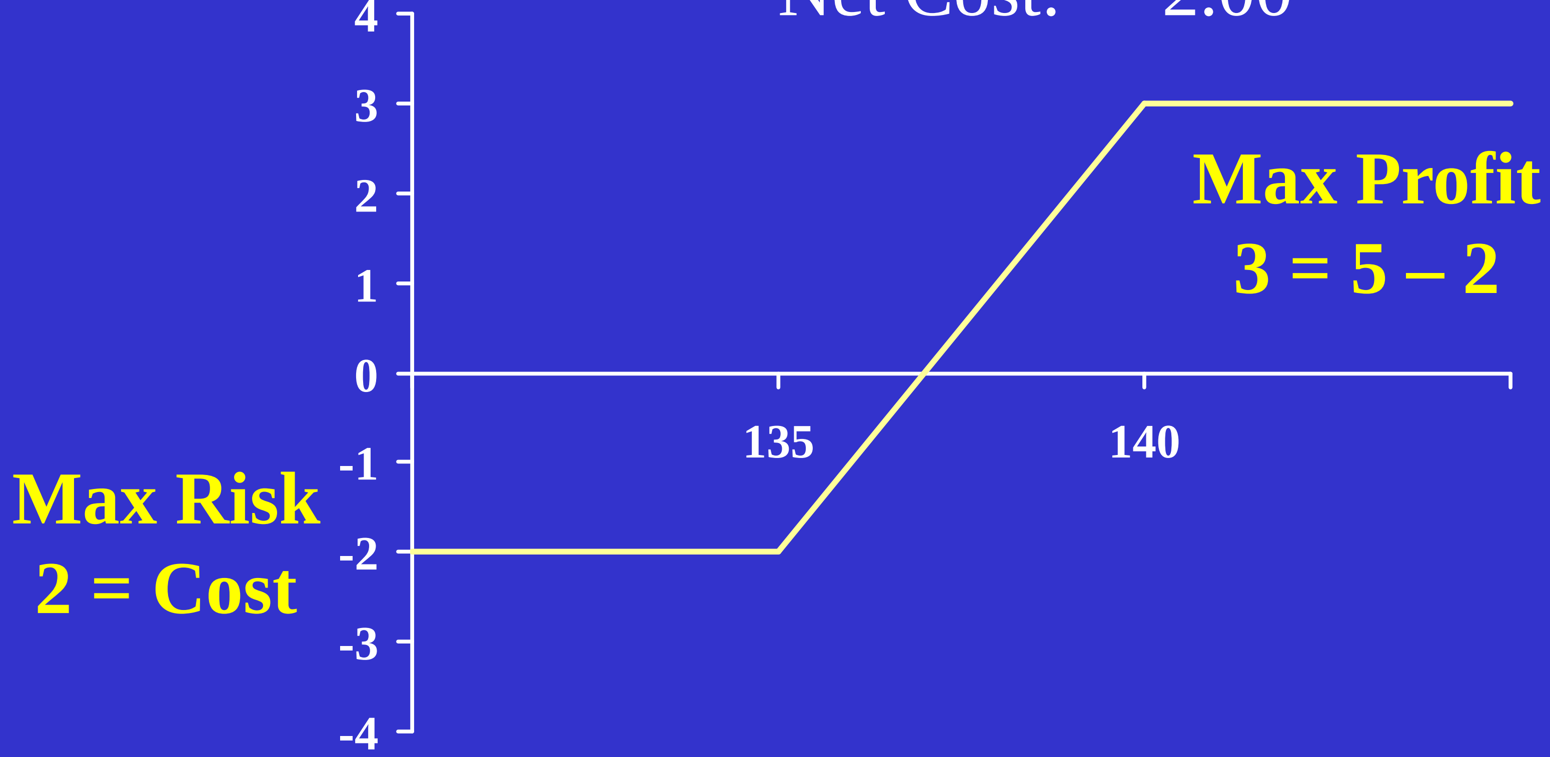
Cross-Index Spreads

Step #2

Understand Vertical Spreads

Bull Call Spread Review

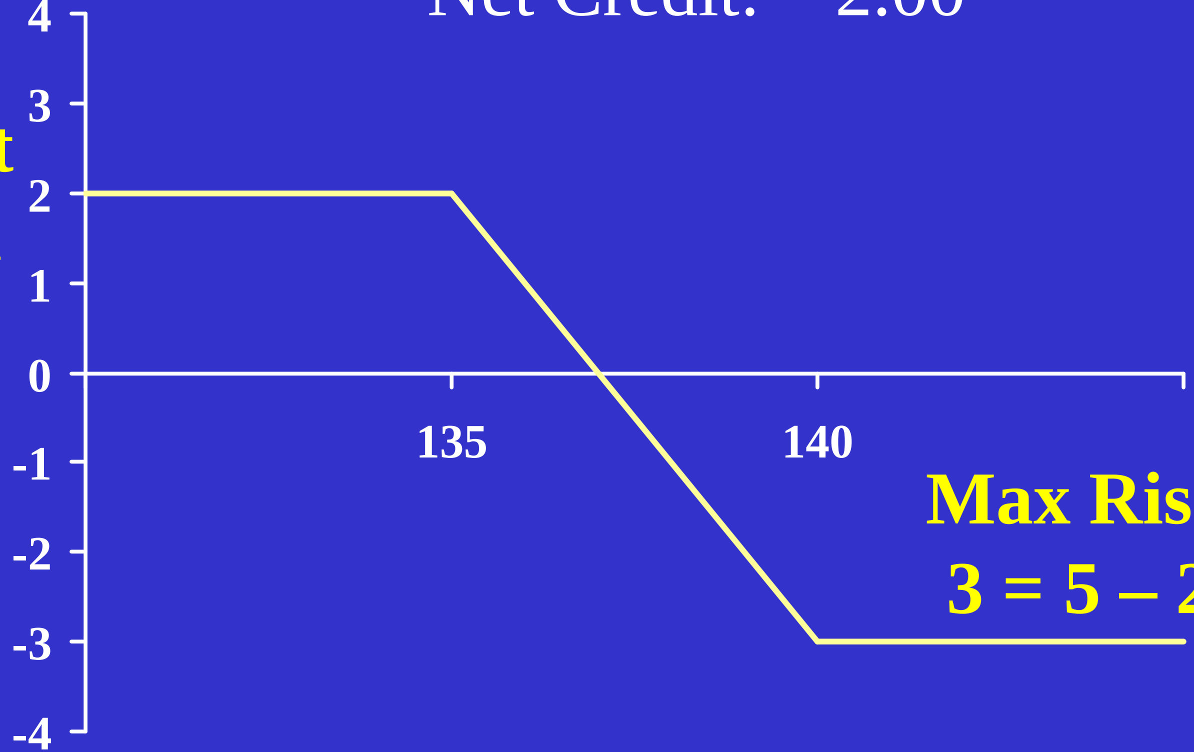
Buy	XSP 135 Call	5.00
Sell	XSP 140 Call	3.00
	Net Cost:	2.00



Bear Call Spread Review

Sell	XSP 135 Call	5.00
Buy	XSP 140 Call	<u>3.00</u>
	Net Credit:	2.00

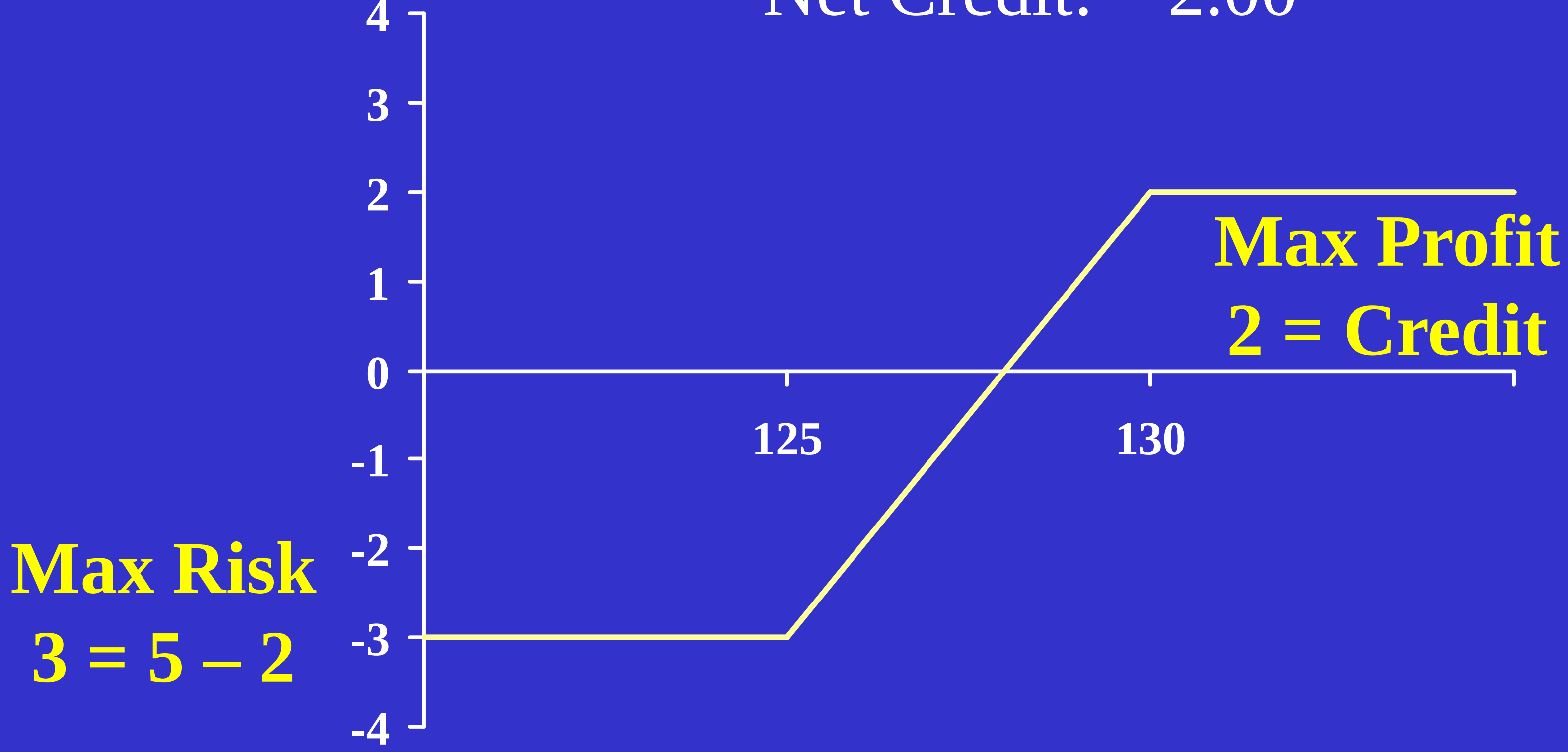
Max Profit
2 = Credit



Max Risk
3 = 5 – 2

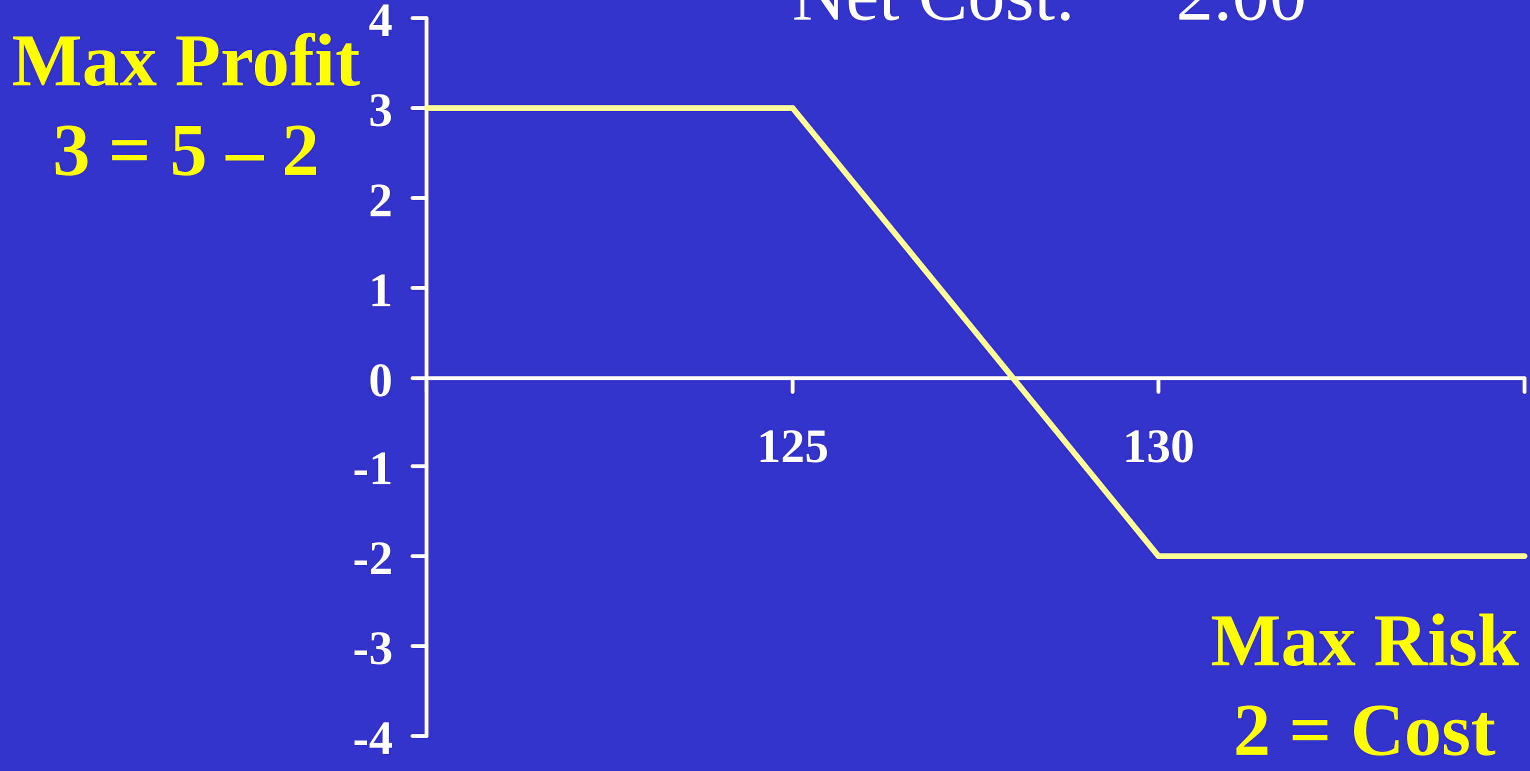
Bull Put Spread Review

Sell	XSP 130 Put	4.50
Buy	XSP 125 Put	2.50
	Net Credit:	2.00

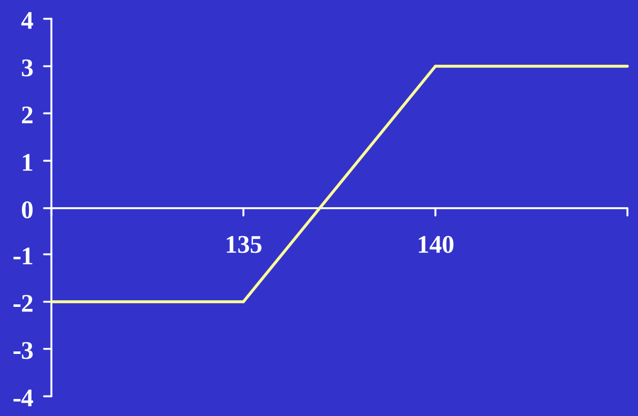


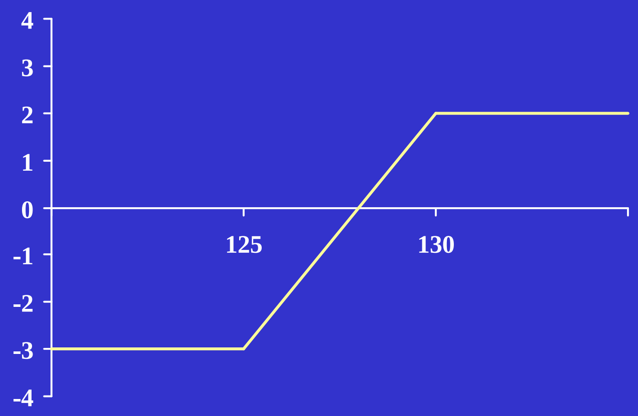
Bear Put Spread Review

Buy	XSP 130 Put	4.50
Sell	XSP 125 Put	2.50
	Net Cost:	2.00

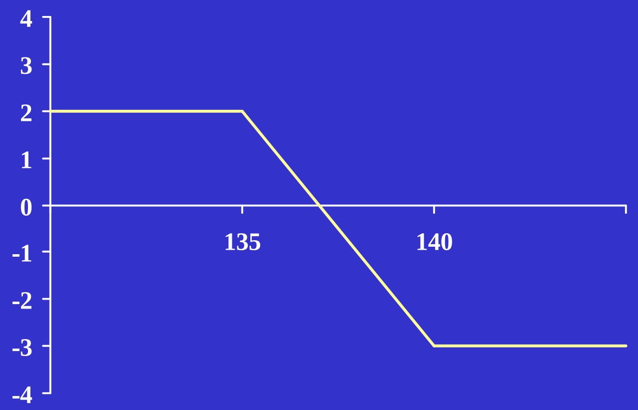


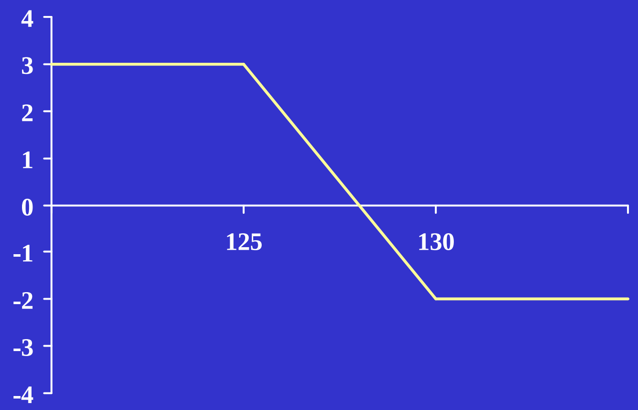
Bull Call Spread = Bull Put Spread





Bear Call Spread = Bear Put Spread





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Cross-Index Spreads

Step #3

Look for Opportunities and Identify the Risks

Cross-Index Spreads

- Bull Call Spread on Index A (Dr)
  + Bear Call Spread on Index B (Cr)
- Bull Call Spread on Index A (Dr)
  + Bull Put Spread on Index B (Cr)
- Note: a directional view is required

Cross-Index Spread #1

Bull Call Spread A-T-M on Index A

plus

Bear Call Spread A-T-M on Index B

Goals: profit from bullish opinion

increase percentage return

with same or less risk

The SPX A-T-M Bull Call Spread

3/25/08

Bull Call Spread on SPX

1,350 + 5% = 1,418

Buy April 1350 Call	34.00
Sell April 1410 Call	7.00
Net Cost:	27.00

Risk

27.00

Max Profit

33.00

+122%

The OEX A-T-M Bear Call Spread

3/25/08

Bear Call Spread on OEX

626 + 5% = 657

Sell April 620 Call		27.00
Buy April 650 Call		<u>11.00</u>
	Net Credit:	16.00

Risk

14.00

Max Profit

16.00

+114%

Cross-Index Spread #1

• Buy the SPX bull call spread	(27)
• Sell the OEX bear call spread	16
Net Cost:	(11)

Cross-Index #1 – Market Up 5%

4/18 SPX > 1,410 OEX > 650

	Initial	Value	P / (L)
SPX Bull Spd	27 Dr	60	+33
OEX Bear Spd	16 Cr	30	–14
Net	11 Dr	30	+19

Risk 11.00 Max Profit 19 +172%

Cross-Index Spreads – More Risks

- If indexes do not move together the risk can be greater than the debit paid.
- If the market moves sideways, time decay can affect the spreads differently.
- Extra commissions.
- Not a trading strategy.

Cross-Index – What to Look For

- Different index levels
  - SPX @ 1,350 OEX @ 620
  - RUT @ 705 NDX @ 1,830
- Same percent spread between strikes; but different point values
  - SPX 1,350 – 1,410 = price 27; max val 60
  - OEX 620 – 650 = price 11; max val 30

Cross-Index Spread #1 Variation

Bull Call Spread A-T-M on Index A

plus

Bear Call Spread O-O-M on Index B

Goals: profit from bullish opinion

reduce cost of vertical spread

increase percentage profit

The OEX A-T-M Bull Call Spread

3/25/08

Bull Call Spread A-T-M on OEX

626 + 5% = 657

Buy April 620 Call 27.00

Sell April 650 Call <u>11.00</u>

Net Cost: 16.00

Risk

16.00

Max Profit

14.00

+87%

The SPX O-O-M Bear Call Spread

3/25/08

Bear Call Spread O-O-M on SPX

1,350

Sell April 1400 Call	12.00
Buy April 1430 Call	5.00
Net Credit:	7.00

Risk

23.00

Max Profit

7.00

Cross-Index #1 – Variation

• Sell the O-O-M SPX bear spread	7
• Buy the A-T-M OEX bull spread	(16)
Net Cost:	(9)

#1 Variation – Market Up 5%

4/18 SPX 1,350 <= 1,400   OEX > 650

	Initial	Value	P / (L)
OEX Bull Spd	16 Dr	30	+14
SPX Bear Spd	7 Cr	0	+ 7
Net	9 Dr		+21

Invest 9.00   Max Profit 21   +233%

#1 Variation – Market Up 8%

4/18 SPX > 1,430 OEX > 650

	Initial	Value	P / (L)
OEX Bull Spd	16 Dr	30	+14
SPX Bear Spd	7 Cr	30	–23
Net	9 Dr		– 9

Invest 9.00 Lose 9 –100%

Cross-Index Spread #2

Bull Call Spread A-T-M on Index A

plus

Bear Call Spread A-T-M on Index B

Goals: profit from bearish opinion

increase percentage return

with same or less risk

Cross-Index Spread #2

3/25/08

Bear Call Spread on SPX

1,350

Sell April 1350 Call	34.00
Buy April 1410 Call	7.00
Net Credit:	27.00

Risk

33.00

Max Profit

27.00

Cross-Index Spread #2

3/25/08

Bull Call Spread on OEX

626

Buy April	620 Call	27.00
Sell April	650 Call	11.00
	Net Cost:	16.00

Risk

16.00

Max Profit

14.00

Cross-Index #1 – Market Down

4/18 SPX < 1,350 OEX < 620

	Initial	Value	P / (L)
SPX Bull Spd	27 Cr	0	+27
OEX Bear Spd	16 Dr	0	–16
Net	11 Cr	0	+11

Risk 19 Max Profit 11

Cross-Index Spread #3

Bull Call Spread on Index A

plus

Bull Put Spread on Index B

Goals: profit from bullish opinion

lower net cost

bigger % downside break-even

RUT Only – Bull Call + Bull Put

3/25/08 RUT 703 + 5% = 738

Buy April 700-740 Call Spd	17.00 Dr
Sell April 670-640 Put Spd	5.50 Cr
Net Cost:	11.50 Dr

Short Put is 4.7% O-O-M

Risk = 41.50 Max Profit = 28.50

RUT Bull Call + NDX Bull Put 1

3/25/08	RUT 703	NDX 1,815

+Apr RUT 700-740 Call Spd	17.00 Dr
–Apr NDX 1675-1625 Put Spd	5.00 Cr
Net Cost:	12.00 Dr

Short Put is 7.8% O-O-M

Risk = 62.00 **Max Profit = 28.00**

RUT Bull Call + NDX Bull Put 2

3/25/08 RUT 703 NDX 1,815

+Apr RUT 700-740 Call Spd	17.00 Dr
–Apr NDX 1750-1725 Put Spd	5.00 Cr
Net Cost:	12.00 Dr

Short Put is 3.5% O-O-M

Risk = 37.00 **Max Profit = 28.00**

Bull Call / Bull Put – More Risks

- An immediate adverse move is the biggest concern.
- 4 bid-ask spreads.
- Extra commissions

Summary

- Cross-Index Spreads – the goals:
  - Increase % profits
  - Increase protection (i.e., increase distance to break-even point)
- The Risks:
  - Indexes may not move together
  - Extra commissions and bid-ask spreads

Thank You for Attending

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