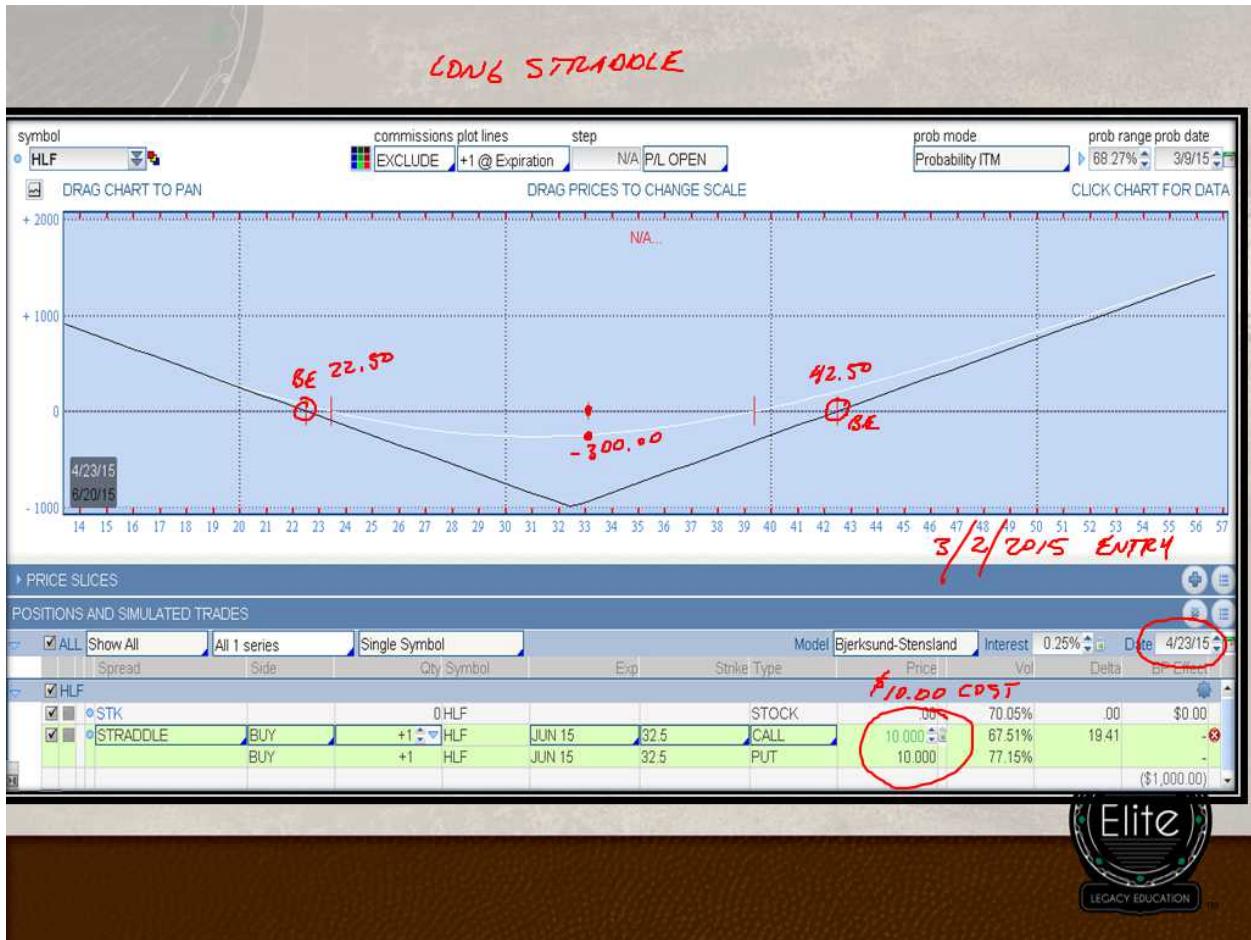


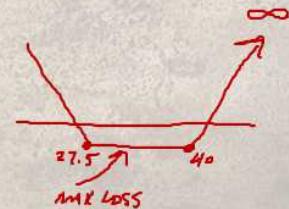
## Options II

8/2/15



# LONG STRANGLE

Ticker HLF Current price 31.45 Date 3/2/15  
BTO JUN 40 CALL(-) \_\_\_\_\_ } \$5.04 or \$504.00  
BTO JUN 27.5 PUT(-) \_\_\_\_\_ }  
Max gain  $\infty$  Unlimited  
Max loss \$5.04 Total net debit 40 + 5.04  
High breakeven @ expiry 45.04 High strike + debit  
Low breakeven @ expiry 22.46 Low strike - debit  
27.5 - 5.04



# LONG STRANGLE

- ①❖ When expected move, or profit target, is achieved
- ②❖ Expected move not achieved
  - If the stock has a history of moving, then exit post earnings
  - Volatility crush
- ③❖ Close the trade before the news is released **BE A CHICKEN**
  - IV is still high
  - Miss out on potential gap
- ④❖ Legging out

*HLF RISES DRAMATICALLY*  
① CALL WORTH A LOT → SELL TO CLOSE  
② PUT WORTHLESS → KEEP PUT





CYBR @ 59.13

8/2/15

Earnings are scheduled for 8/11/15

Stock definitely moving 15% over a 1.5 month period

Connected Delayed data, Aug, 2 10:36:08, Account D-10961925 (margin)

Option BP \$103,266.85 Stock BP \$206,533.70 Net Liq \$123,283.25 Forex BP \$10,000.00 Cash & Sweep Vehicle \$105,607.25

Monitor Trade Analyze Scan MarketWatch Charts Tools Help Hot Key Setup Investools

Add Simulated Trades Risk Profile Probability Analysis thinkBack Fundamentals

**CYBR CYBERARK SOFTWARE LTD ORD** ±7.15 HTB NASDAQ B: 56.69 59.13 +.55 A: 56.49 +0.94%

UNDERLYING Last X Net Chng Bid X Ask X Size Volume Open High Low  
59.13 O +.55 56.99 O 56.49 O 1 x 0 1 144 975 58.53 58.50 57.25

PRICE SLICES

POSITIONS AND SIMULATED TRADES

ALL Show All All 1 series Single Symbol Model Bjerkund-Stensland Interest ... Date ...  
Spread Side Qty Symbol Exp Strike Type Price Vol Delta BP Eff.

ORDER ENTRY TOOLS

ORDER ENTRY AND SAVED ORDERS

**ORDER ENTRY SAVED ORDERS**

Spread	Side	Qty	Pos Eff.	Symbol	Exp	Strike	Type	Link	Price	Order	TIF	Exch.
STRANGLE	BUY	+1	AUTO	CYBR	JAN 18	75	CALL		13.20	LMT	LIMIT	DAY
	BUY	+1	AUTO	CYBR	JAN 18	55	PUT			DEBIT		BEST

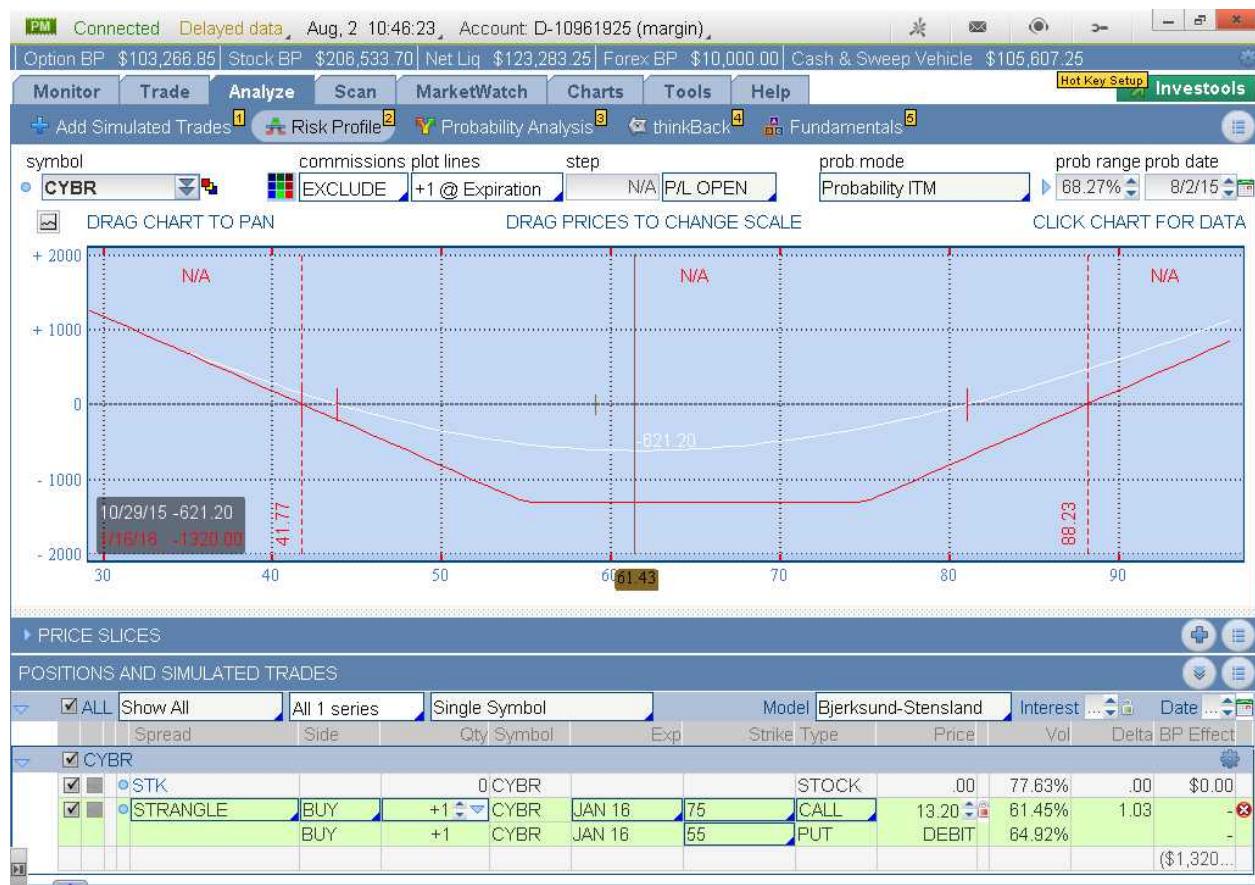
Advanced Order: Single Order Mid 12.90 14.20 Nat Delete Confirm and Send

ORDER AND STRATEGY BOOK Orders: ALL 2 working, 0 filled orders, 0 total fills

**ORDERS STRATEGIES**

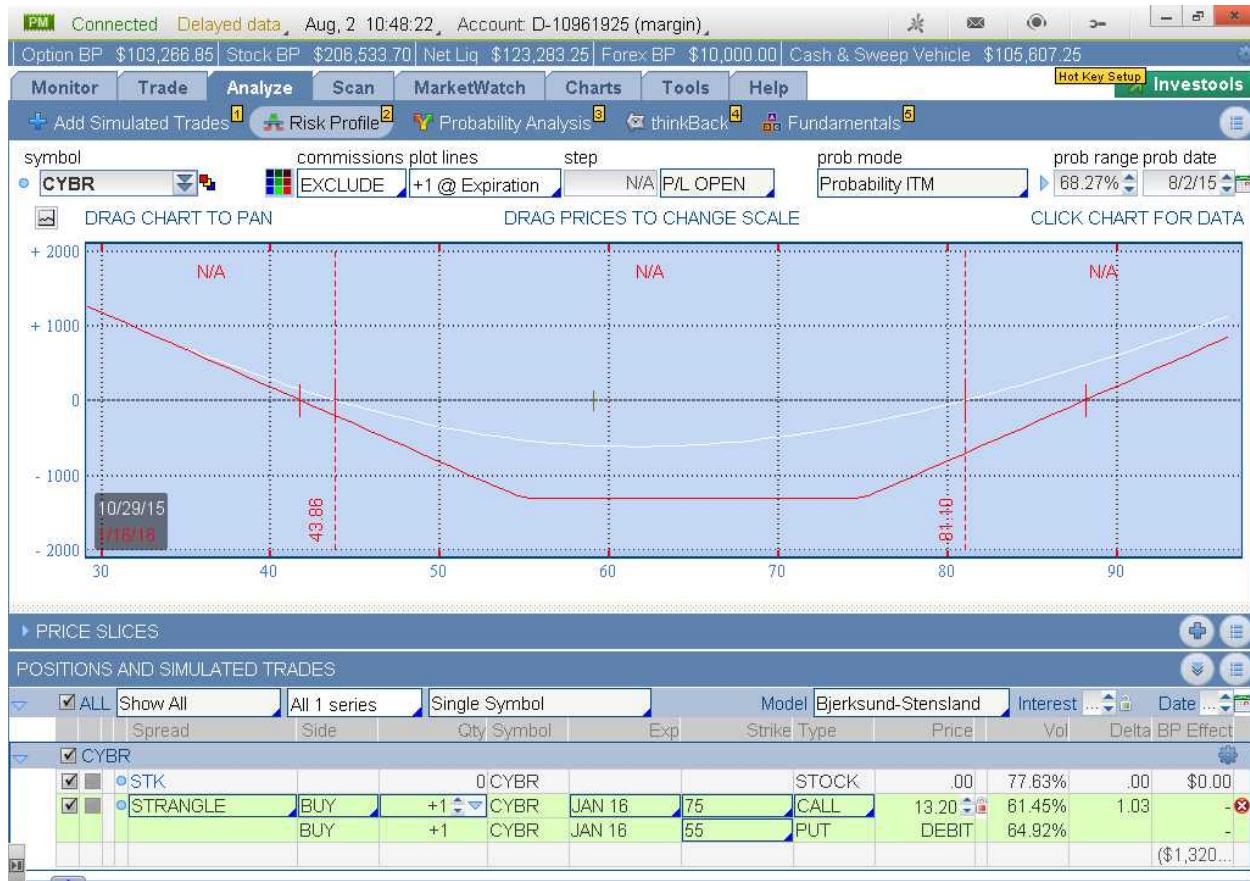
Time	Order ID	Description	Status
7/31/15 17:42:54	522982679	BUY +1 VERTICAL PANW 100 DEC 15 185/220 CALL @12.05 LMT [TO OPEN/TO OPEN]	WORKING
8/1/15 12:22:15	523082426	(Replacing #523082422) BUY +2 VERTICAL NSC 100 SEP 15 85/80 PUT @2.04 LMT [TO OPE...]	WORKING

Duplicate order Mid 12.90 and 14.20 Nat, so we are modeling 13.20 net debit



Model loss  $\frac{1}{2}$  way to expiration = -621.00 per contract, if CYBR @ 61.43 (worst case) on 10/29/2015

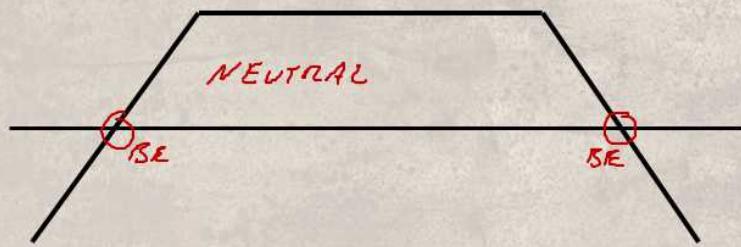
Breakevens @ expiration = 41.80 and 88.20 (see above)



Breakvens ½ way to expiration (see above) = 43.86 and 81.10. We can set the slices on the chart.

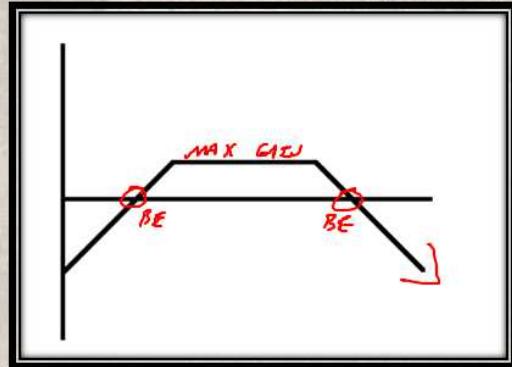
1. Max gain = unlimited
2. Max loss = net debit of 13.20 per share, or 1320.00 per contract; if CYBR between 55 and 75 @ expiration
3. Breakevens @ expiration = 41.80 and 88.20
4. Exit plans
  - a. We need to stay in through Aug and Nov earnings – maximizes our chances of stock making an abnormal
  - b. Post Nov earnings, then we must decide to either stay in, or close
5. Model loss ½ way to expiration if CYBR has not moved = -621.00
6. Position size = willing loss -500 / 621.00 model loss = 1 contract

# SHORT STRANGLE



# SHORT STRANGLE

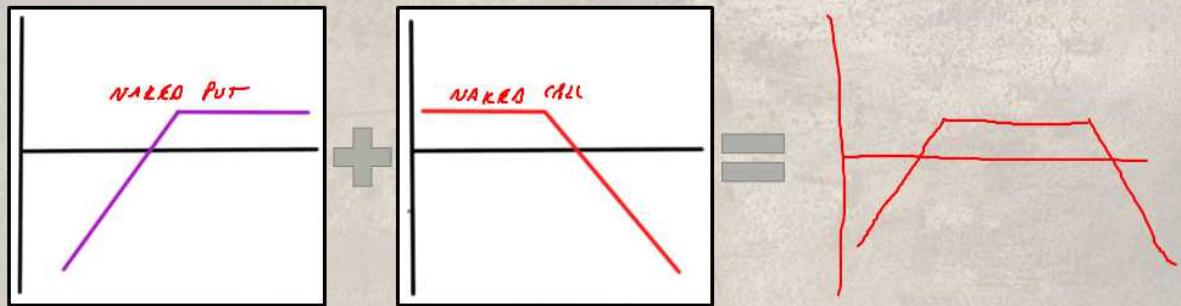
- ❖ Outlook -3-2 (-1 0 1) ± 3
  - Neutral
- ❖ Max Reward
  - Net credit > IRON CONDOR
- ❖ Risk
  - Unlimited ∞
- ❖ Probability of Profit (POP)
  - $1.00 - (\text{Delta of short put} + \text{Delta of short call})$  ≈ 80%
- ❖ Break-evens
  - Call strike + total net credit
  - Put strike - total net credit





Right now, VIX is extremely low = premiums are cheap, not a good time to sell options

# SHORT STRANGLE



# SHORT STRANGLE CASE STUDY

XYZ is trading for \$50

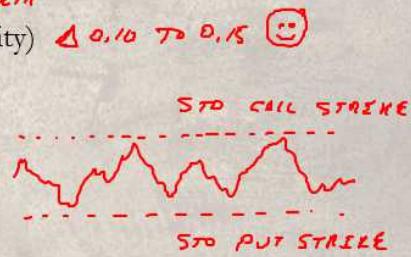
- ❖ Sell April 60 call for \$1, Delta 0.15
  - Obligation to sell @ \$60
- ❖ Sell April 40 put for \$1, Delta 0.15
  - Obligation to buy @ \$40
- ❖ Risk-Reward
  - 1. Net credit \$2
  - 2. Unlimited risk
  - 3. Two break-evens
  - 4. Probability of max gain through expiration = 70%



# SHORT STRANGLE RULES

USE IRON CONDOOR ON HIGH VOLATILITY STOCKS!

- ❖ Stock price  $\leq$  \$50
- ❖ Close to expiration
  - 2 – 60 days out
  - Time decay accelerating (+) THEM
- ❖ Contract Delta  $\leq$  0.20 (high probability)  $\Delta 0.10 \text{ TO } 0.15$  ☺
- ❖ IV higher than normal CHECK VIX
- ❖ Short put strike below support
- ❖ Short call strike above resistance
- ❖ Be aware of earnings
  - IV high – more credit
  - Stock could gap beyond strikes





## SHORT STRANGLE MARGIN

---

❖ The writing of uncovered options requires an initial deposit and maintenance of the greatest of the following three formulas:

- 20% of the underlying stock less the out-of-the-money amount, if any, plus 100% of the current market value of the option(s).
- 10% of the exercise value of the underlying stock PLUS the premium value.
- \$50 per contract plus 100% of the premium

❖ Margin held on one side only – the side that is closest to the current stock price



## SHORT STRANGLE EXAMPLE



## SHORT STRANGLE EXAMPLE

### ❖ Example with QIHU

- QIHU is announcing earnings *DANGEROUS → BREAKING RULE*
- QIHU @ 47.62
- Date: 3/9/2015
- IV is higher than normal *TEMPORAL*

STO (1) April 60 call @ <sup>ORM</sup> \$0.75 credit Delta = 0.17

STO (1) April 40 put @ <sup>ORM</sup> \$0.65 credit Delta = 0.15

Net credit = \$1.40

Net Delta = 0.02 (close to 0.00)

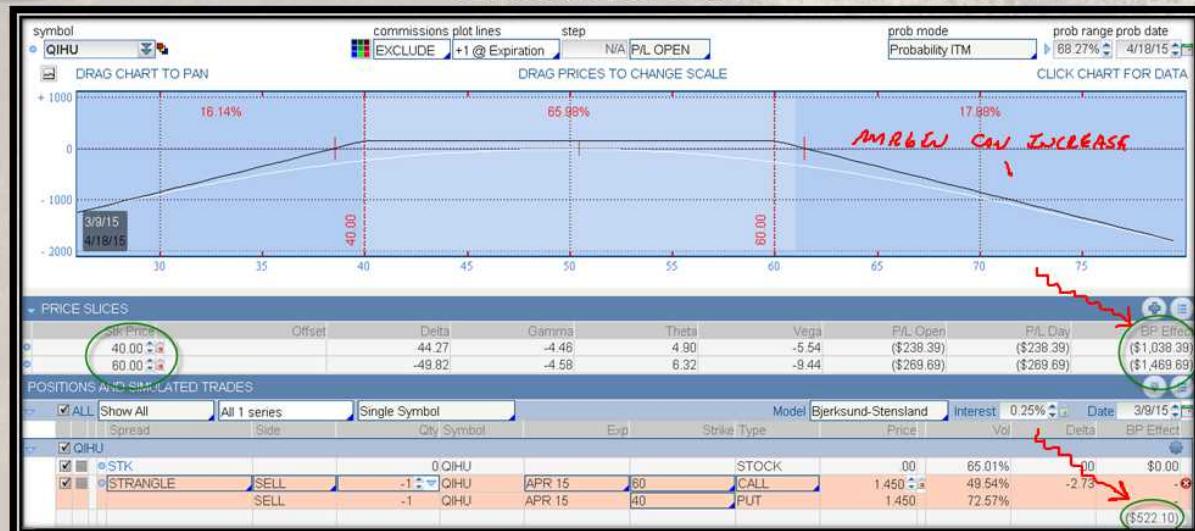
Margin required to place trade = (\$522.60)

$$ROI = \frac{\$140.00 \text{ CREDIT}}{\$522.60 \text{ COST}} = 27\%$$

*THIS CAN CHANGE*



# SHORT STRANGLE EXAMPLE



# SHORT STRANGLE EXAMPLE

- ❖ Max gain = total net credit 1.45 on 9145
  - What has to happen:
  - QIHU above 40.00 (PUT STRIKE)
  - QIHU below 60.00 (CALL STRIKE)
  - When EXP.
- ❖ Max loss = unlimited
- ❖ Breakevens @ expiration
  - Higher = 60 CALL STRIKE + 1.45 CREDIT = 61.45
  - Lower = 40 PUT - 1.45 " = 38.55
- ❖ Closing prior to expiration
  - IV drops POST EARNLBS
  - Time passes → 1/2 to EXP., OR 50% MAX GAIN



# SHORT STRANGLE EXAMPLE

- ❖ Position sizing  $\$500 \div \$269 = 2 \text{ CONTRACTS}$
- ❖ Willing loss per trade  $\div$  loss at the short strike

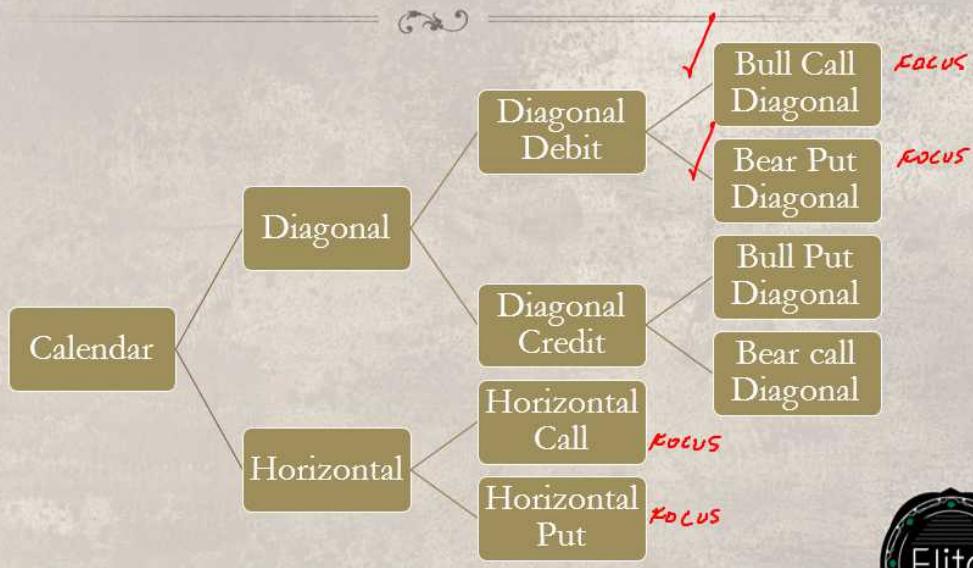


## TABLE OF SPREADS

April	May	Aug	Oct	Jan
100	100	100	100	100
105	105	105	105	105
110	110	110	110	110



# CALENDAR SPREADS

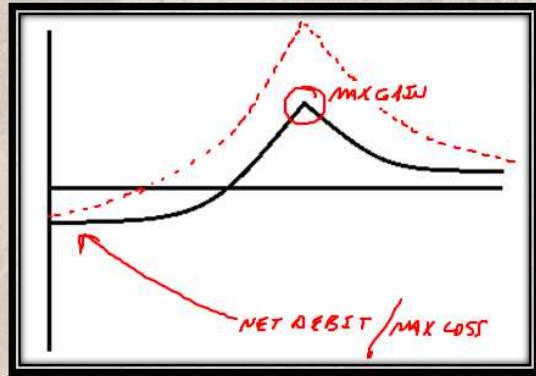


DIAGONAL CALL

COVERED CALL SUBSTITUTE

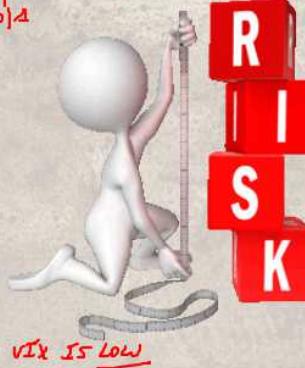
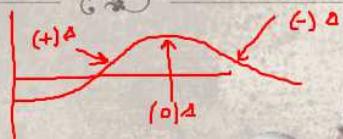
## BULL CALL DIAGONAL

- ❖ Outlook -3 -2 -1 0 1 2 3
  - Neutral to bullish
- ❖ Max Reward
  - Limited
- ❖ Risk
  - Limited to the net debit
- ❖ Break-evens
  - 1-2 break-evens
  - Use risk graph
- ❖ Probability of profit  
 $\approx 45\% - 60\%$ .



## BULL CALL DIAGONAL

- ① ♦ Positive Delta
  - Slightly bullish
- ② ♦ Positive Theta
  - Time decay helps
- ③ ♦ Neutral Gamma
  - As stock rises Delta changes slowly from (+) to (-)
- ④ ♦ Positive Vega
  - Profit as implied volatility rises
  - Function of long call



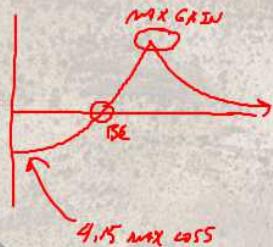
*ENTER WHEN VIX IS LOW*



# BULL CALL DIAGONAL CASE STUDY

XYZ is trading for \$100

- ❖ Date: March 9<sup>th</sup>, 2015  
*1 mo. out (OTM)*
- ❖ Sell April 105 call for \$1.85, Delta 0.15
  - Obligation to sell @ \$105
- ❖ Buy July 95 call for \$6, Delta 0.85
  - Right to buy @ \$95
- ❖ Risk-Reward
  - Net debit = \$4.15 *\$4.15.00 MX LOSS*
  - Limited reward
  - 1-2 break-evens
  - Probability of max gain through expiration = see risk graph (too complex)



# BULL CALL DIAGONAL RULES

FOCUS ON ETFs

- ✓❖ Stock over \$50
- ✓❖ STO near term + BTO long term
- ✓❖ BTO 2-12 months out and 1-2 strikes ITM
- ✓❖ STO 2-60 days out
  - STO ATM – neutral
  - STO OTM – bullish
- ✓❖ Try to enter when IV is low **VIX**
- ✓❖ Short contract premium  $\geq$  10% of long contract premium
- ✓❖ Equal number of contracts on each leg

- 1) MORE STRIKES  
2) MORE LIQUID  
3) MORE EXP.

IWM, SPY, QQQ, TLT,  
TBT



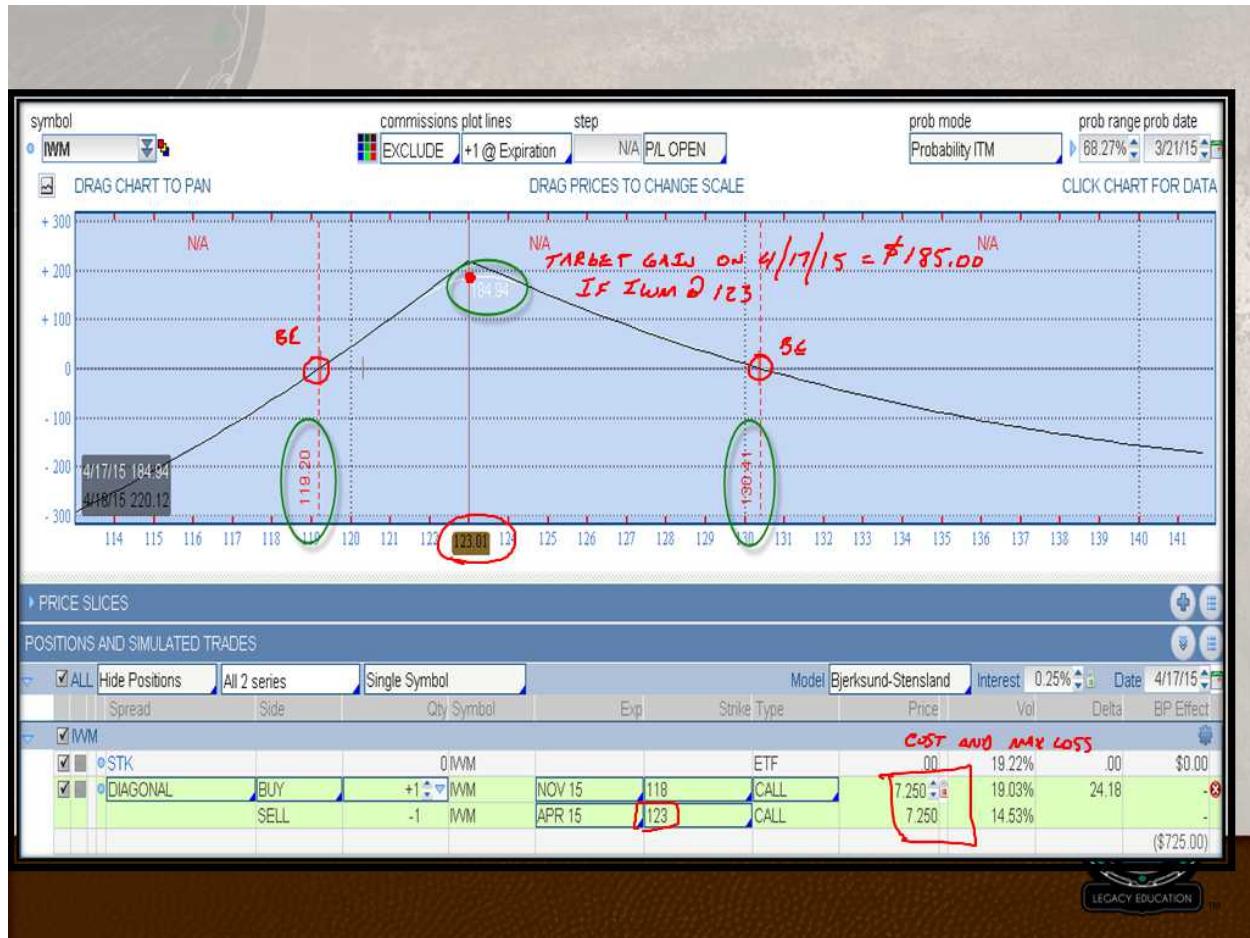


## BULL CALL DIAGONAL EXAMPLE

---

- ❖ Example with IWM **ETF**
  - IWM no earnings
  - IWM @ \$120.30
  - Date: 3/10/2015
  - IV is relatively low *GOOD DEAL ON LONG CALL*
- ❖ BTO (1) Nov 118 call @ \$8.42 debit
- ❖ STO (1) Apr 123 call @ \$1.17 credit
- ❖ Net debit = **\$7.25**
- ❖ Cost of trade = (\$725.00) per contract





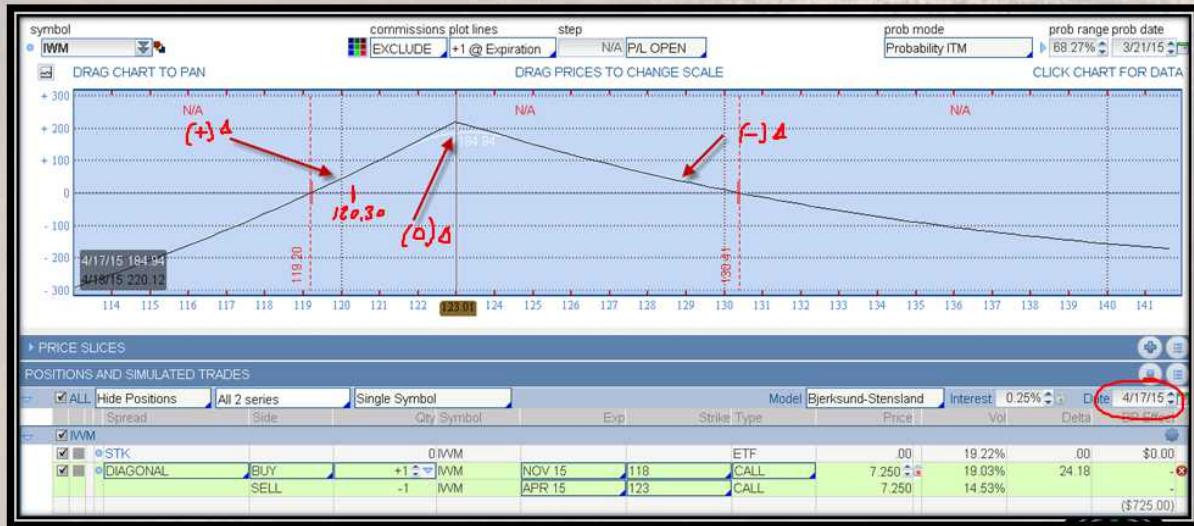
# BULL CALL DIAGONAL EXAMPLE

- ❖ Max gain
  - Stock @ short call strike *IWM 2125.00*
  - At expiration of short call *4/17/15*
- ❖ Max loss
  - Net debit of trade *\$725.00*
  - Tremendous move down prior to short call expiry
- ❖ Break-even
  - 1-2 break-evens *SEE PREVIOUS PAGE*
  - Use risk graph
- ❖ Exit plans
  - Hold to short call expiration → *SQUEEZE TIME VALUE*
  - Short call expires worthless → *LET IT GO*
  - Short call ITM → *BUY TO CLOSE*
  - STO again ?



We can sell against the long call until it is within 2 months of expiration (avoid massive time decay).

# BULL CALL DIAGONAL DELTA



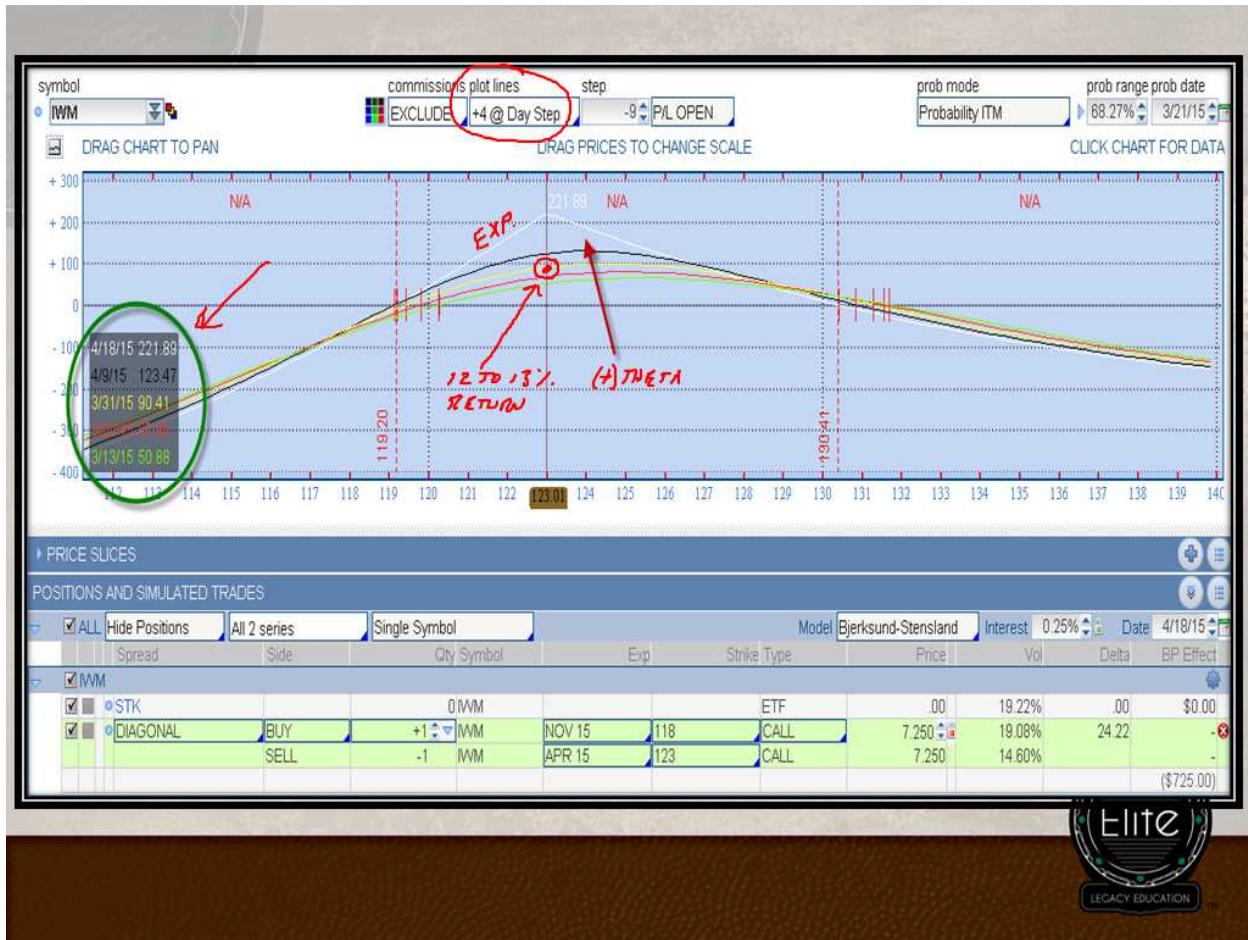
Reevaluate the trade once the stock (IWM) has hit the short call strike (123), we might have a decent gain and could close the trade.



## BULL CALL DIAGONAL VEGA



If IV spikes prior to long call expiration (VIX spikes), then we might exit for increased profit.



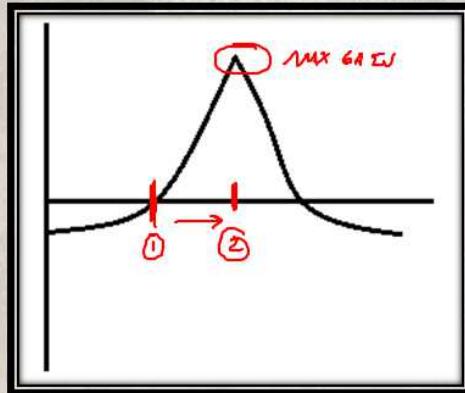
P. 188

WRONG  
GRAPH

SAME STRIKES

## HORIZONTAL CALL

- ❖ Outlook -3-2-1 0, ② ③
  - Bullish
- ❖ Max Reward
  - Limited  $\approx 100-200\%$
- ❖ Risk
  - Limited to the net debit  
*COST IS LOW*
- ❖ Break-evens
  - 2 break-evens **ALWAYS**
  - Use risk graph
- ❖ Probability of profit
  - $\approx 30\% - 50\%$



# HORIZONTAL CALL

## ❖ Positive Delta

- Bullish, but can switch to bearish *CUSTOMIZE*

## ❖ *NEUTRAL* Positive Theta

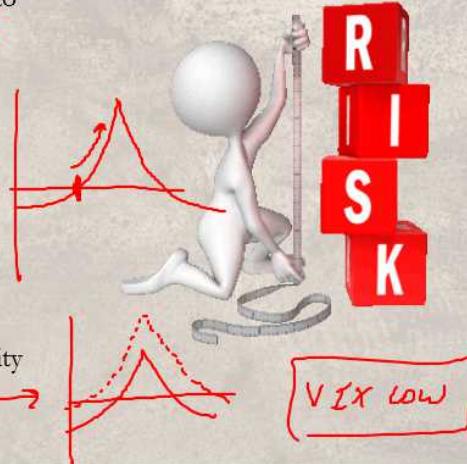
- Time decay helps

## ❖ Positive Gamma

- Delta accelerates
- Pronounced closer to expiration

## ❖ Positive Vega

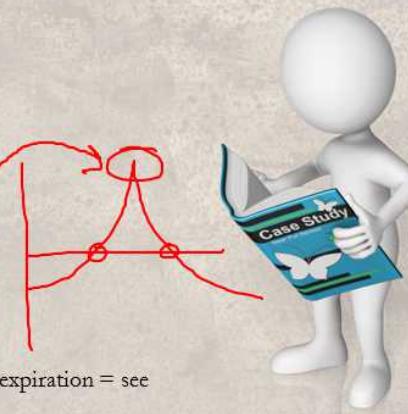
- Profit as implied volatility rises
- Function of long call



# HORIZONTAL CALL CASE STUDY

XYZ is trading for \$100

- ❖ Date: March 10<sup>th</sup>, 2015
- ❖ Target \$110
- ❖ Sell April 110 call for \$1
  - <sup>IN & OUT</sup> Obligation to sell @ \$110
- ❖ Buy May 110 call for \$2
  - Right to buy @ \$110
- ❖ Risk-Reward
  - Net debit = \$1.00
  - Limited reward
  - 2 break-evens
  - Probability of max gain through expiration = see risk graph (too complex)



## HORIZONTAL CALL RULES

- ❖ Stock over \$50
- ❖ STO near term + BTO long term
- ❖ Same strikes
- ❖ BTO 2-3 months out
  - ATM neutral
  - **OTM bullish**
- ❖ STO 2-60 days out
  - ATM – neutral
  - **OTM – bullish**
- ❖ Try to enter when IV is low **VIX IS LOW**
- ❖ Short contract premium  $\geq 10\%$  of long contract premium **EASY**
- ❖ Equal number of contracts on each leg





## HORIZONTAL CALL EXAMPLE

---

- ❖ Example with AAPL
  - AAPL no earnings through April 2015 expiration
  - AAPL @ \$124.51
  - Date: 3/10/2015
  - IV is relatively low
- ❖ BTO (1) May 135 call @ \$2.50 debit
- ❖ STO (1) Apr 135 call @ \$0.96 credit
- ❖ Net debit = \$1.54
- ❖ Cost of trade = (\$154) per contract

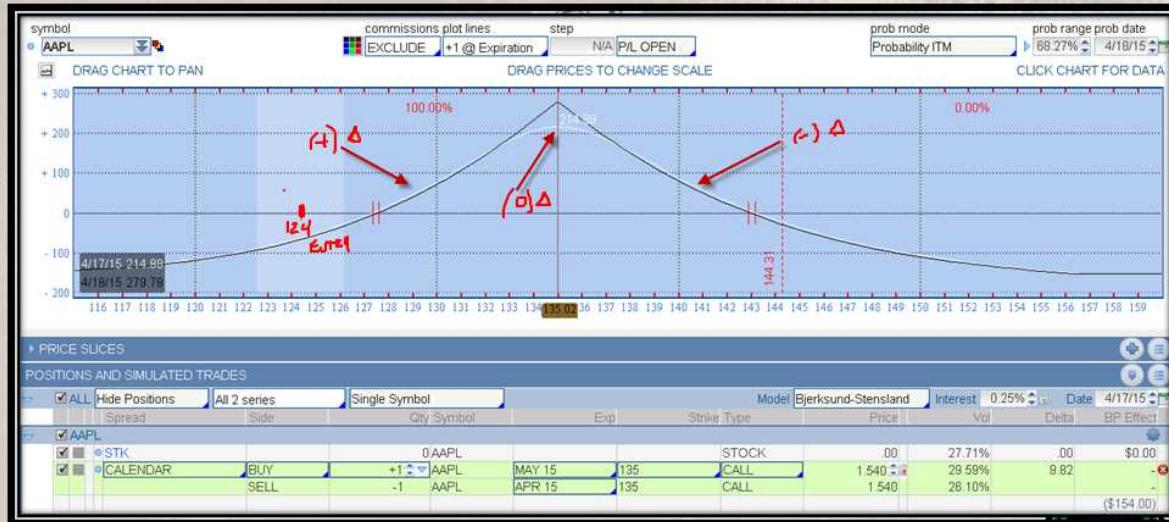


## HORIZONTAL CALL EXAMPLE

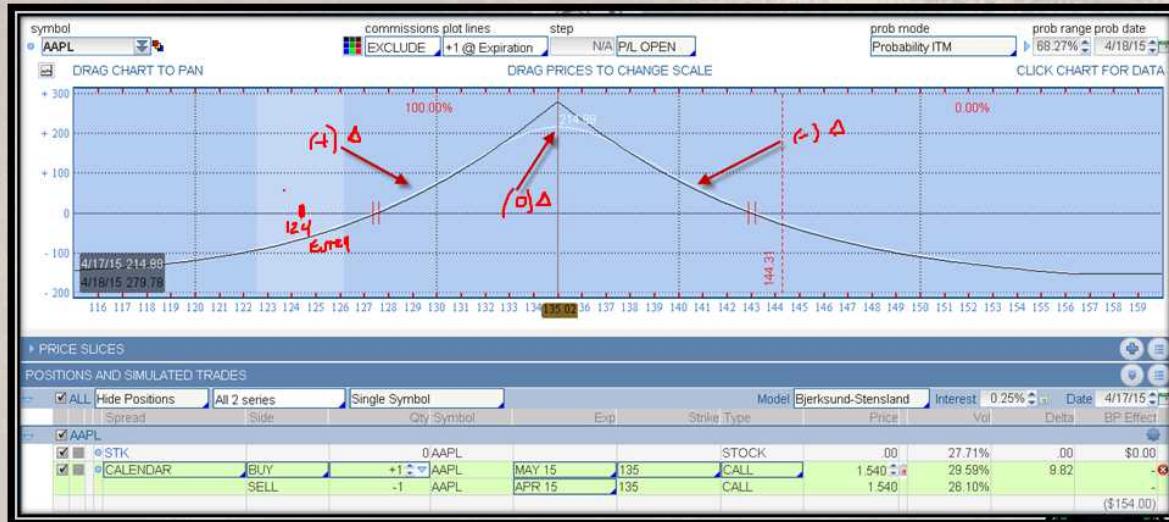
- ❖ Max gain
  - Stock @ short/long strike *AAPL 2135 on 4/17/15*
  - At expiration of short call
- ❖ Max loss
  - Net debit of trade *-1.54, or 154.00*
  - Tremendous move down/up prior to short call expiry
- ❖ Break-even
  - 2 break-evens *127.39 AND 144.31*
  - Use risk graph
- ❖ Exit plans
  - ① ▪ Close if AAPL touches the strike of spread *135.00*
  - ② ▪ Close last trading day of short call *4/17/15 TAKE 90.00 LOSS*
  - ③ ▪ Control risk through position size  
*MAXIMUM LOSS - 1500 / 154.00 ≈ 3 CONTRACTS*



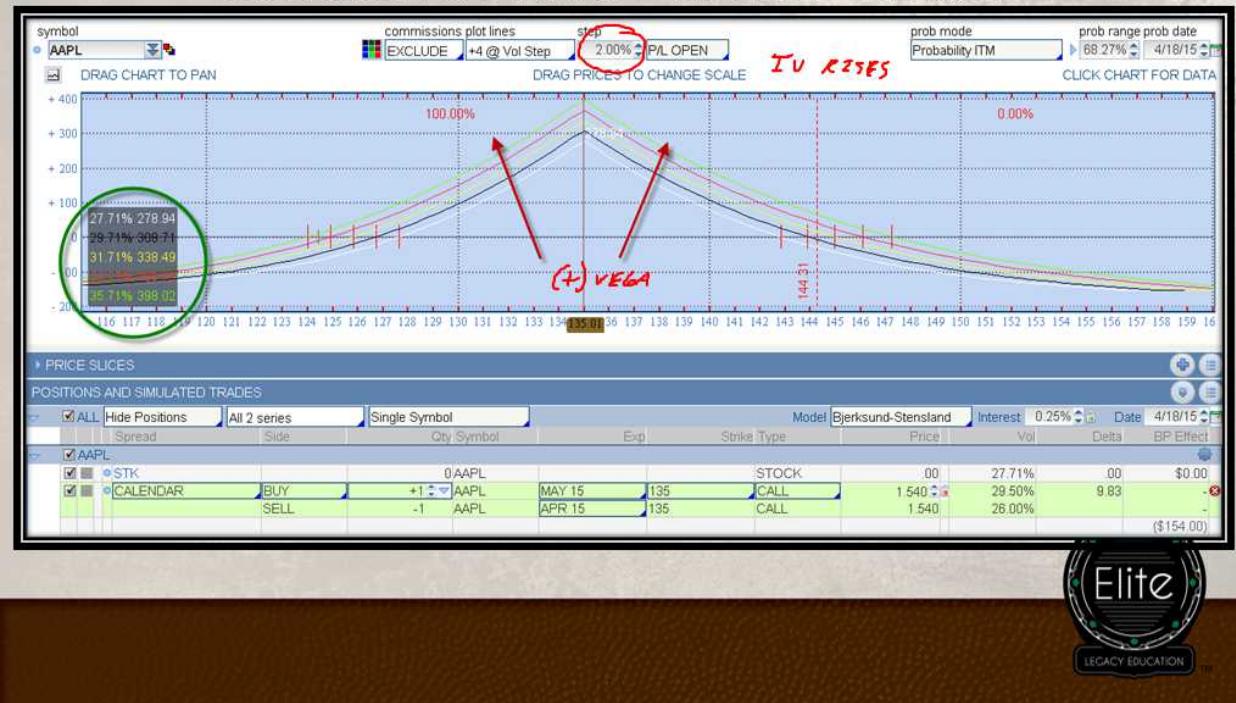
# HORIZONTAL CALL DELTA

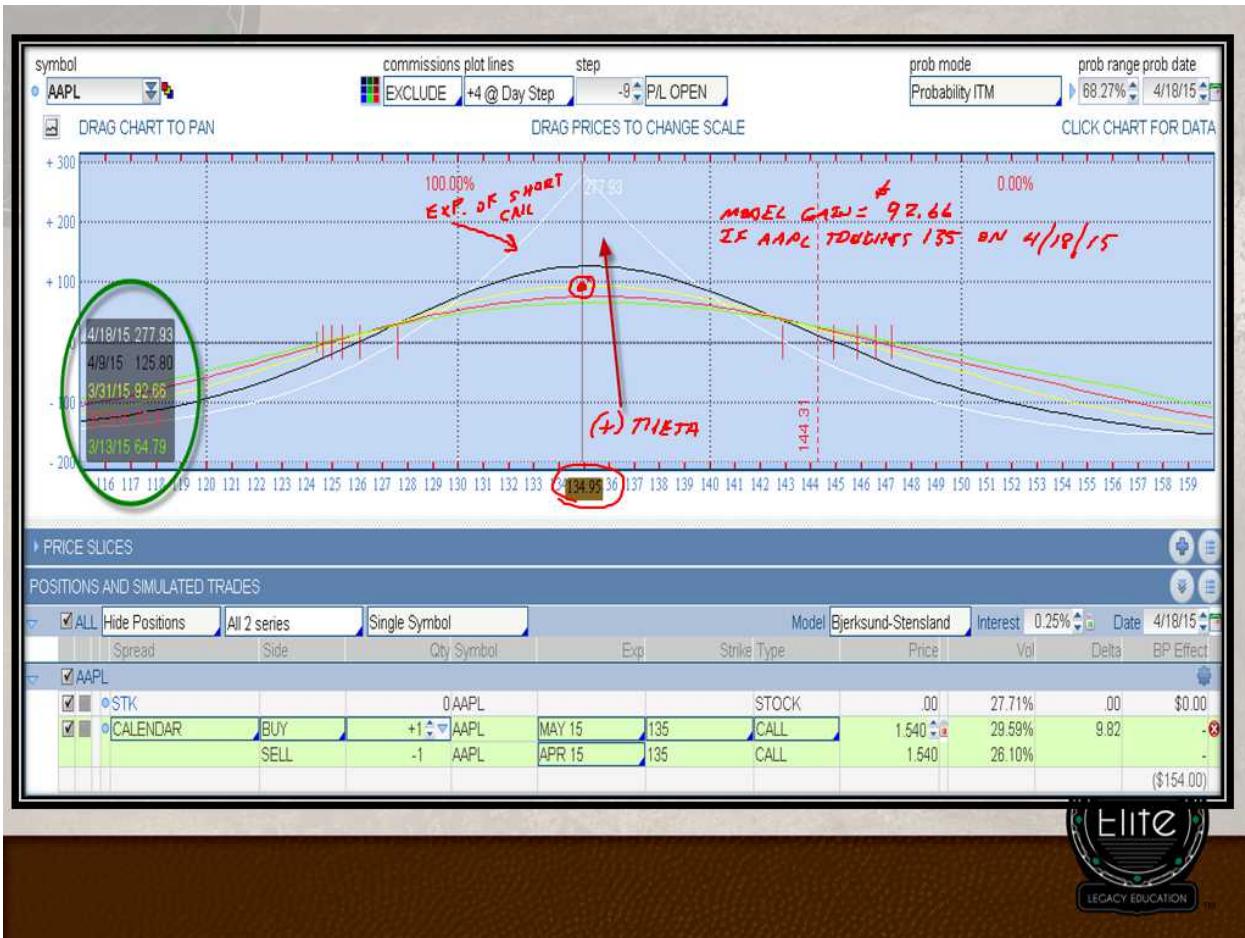


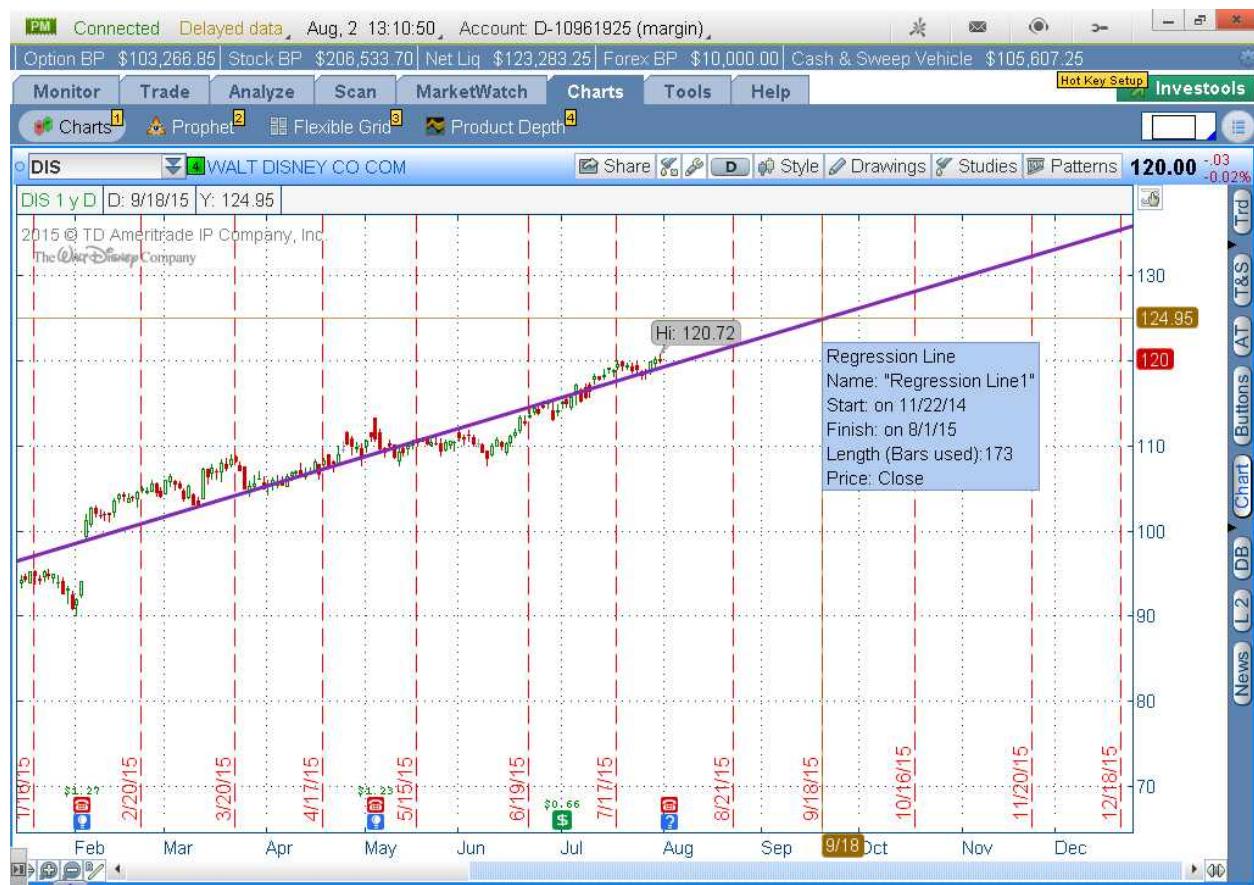
# HORIZONTAL CALL DELTA



## HORIZONTAL CALL VEGA







DIS Horizontal Call spread – target 125 by September expiration

DIS @ 120.00

8/2/15

Connected Delayed data, Aug, 2 13:12:27, Account D-10961925 (margin)

Option BP \$103,266.85 Stock BP \$206,533.70 Net Liq \$123,283.25 Forex BP \$10,000.00 Cash & Sweep Vehicle \$105,607.25

Monitor Trade Analyze Scan MarketWatch Charts Tools Help Hot Key Setup Investools

Add Simulated Trades Risk Profile Probability Analysis thinkBack Fundamentals

DIS WALT DISNEY CO COM Company Profile ±3.192 ETB B: 117.00 120.00 -0.03 A: 121.00 -0.02%

UNDERLYING

Last X	Net Chng	Bid X	Ask X	Size	Volume	Open	High	Low
120.00 N	-.03	117.00 K	121.00 K	10 x 0	5,767,280	120.12	120.72	119.5994

OPTION CHAIN Filter: Off Spread: Single Layout: Delta, Intrinsic, Extrinsic...

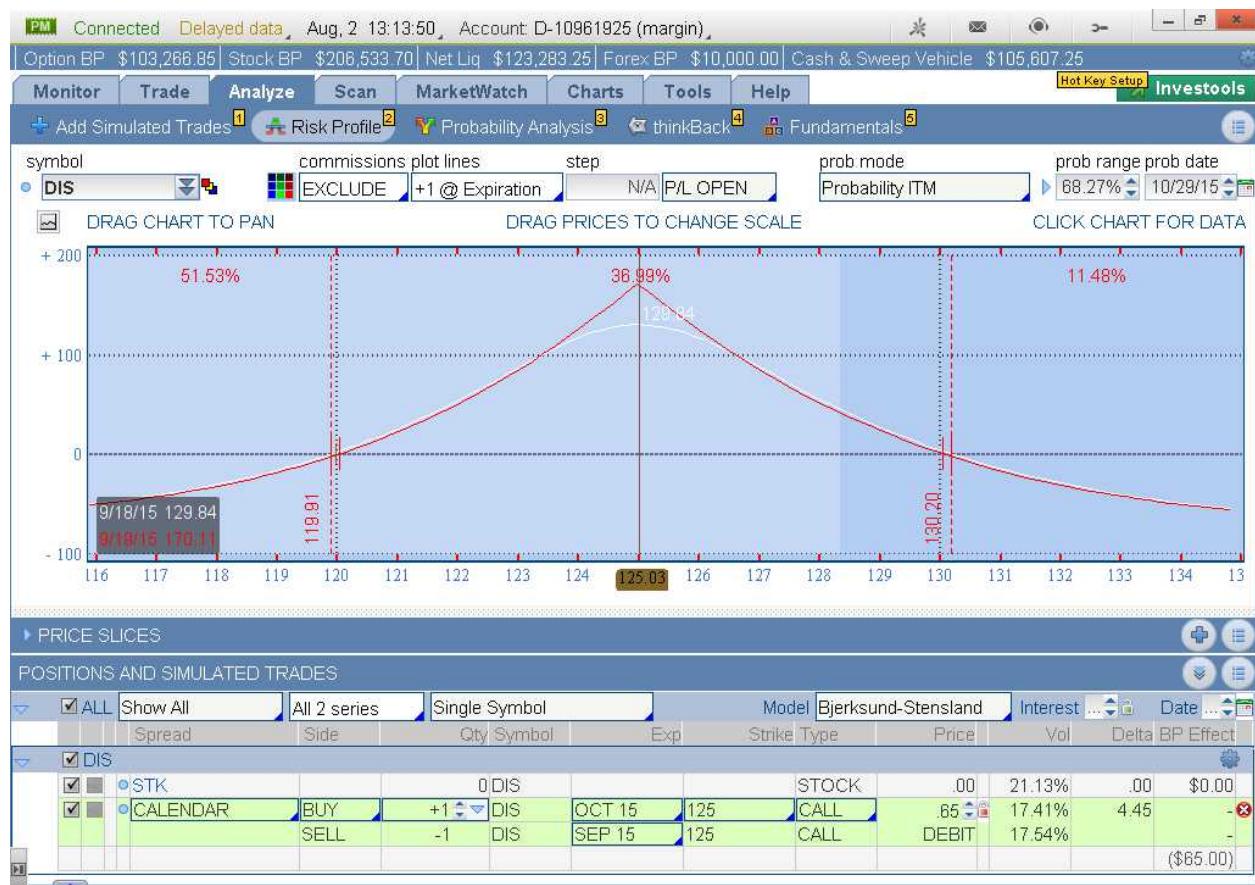
CALLS					PUTS						
Delta	Intrinsic	Extrinsic	Bid X	Ask X	Exp	Strike	Bid X	Ask X	Delta	Intrinsic	Extrinsic
OCT 15 (75) 100 20.22% (+8.95)											
.91	20.00	4.75	20.25 X	20.70 A	OCT 15	100	.28 A	.32 Z	-.05	0	.30
.88	15.00	.85	15.45 X	15.85 C	OCT 15	105	.51 A	.55 A	-.09	0	.53
.82	10.00	1.10	11.00 X	11.20 C	OCT 15	110	.97 A	1.03 M	-.18	0	1.00
.89	5.00	2.10	6.85 C	7.25 C	OCT 15	115	1.92 X	2.02 A	-.30	0	1.97
.51	0	3.925	3.85 X	4.00 X	OCT 15	120	3.75 X	3.90 A	-.49	0	3.825
.31	0	1.815	1.72 X	1.91 Z	OCT 15	125	6.65 X	6.85 X	-.71	5.00	1.75
.16	0	.81	.78 A	.84 X	OCT 15	130	9.75 A	11.15 X	-.92	10.00	.45
.08	0	.35	.33 A	.37 C	OCT 15	135	14.15 A	16.10 M	-1.00	15.00	.125
.04	0	.16	.12 X	.20 X	OCT 15	140	19.15 A	20.75 M	-1.00	20.00	0

PRICE SLICES

POSITIONS AND SIMULATED TRADES

ALL Show All	All 2 series	Single Symbol	Model	Bjerk sund-Stensland	Interest	Date	Spread	Side	Qty	Symbol	Exp	Strike	Type	Price	Vol	Delta	EP Effect
<input checked="" type="checkbox"/> DIS	<input checked="" type="checkbox"/> STK	0DIS		STOCK	.00	21.13%	.00	\$0.00									
<input checked="" type="checkbox"/> CALENDAR	<input checked="" type="checkbox"/> BUY	+1	DIS	OCT 15	125	CALL	.65	17.41%	4.45								
	<input checked="" type="checkbox"/> SELL	-1	DIS	SEP 15	125	CALL	DEBIT	17.54%		(\$65.00)							

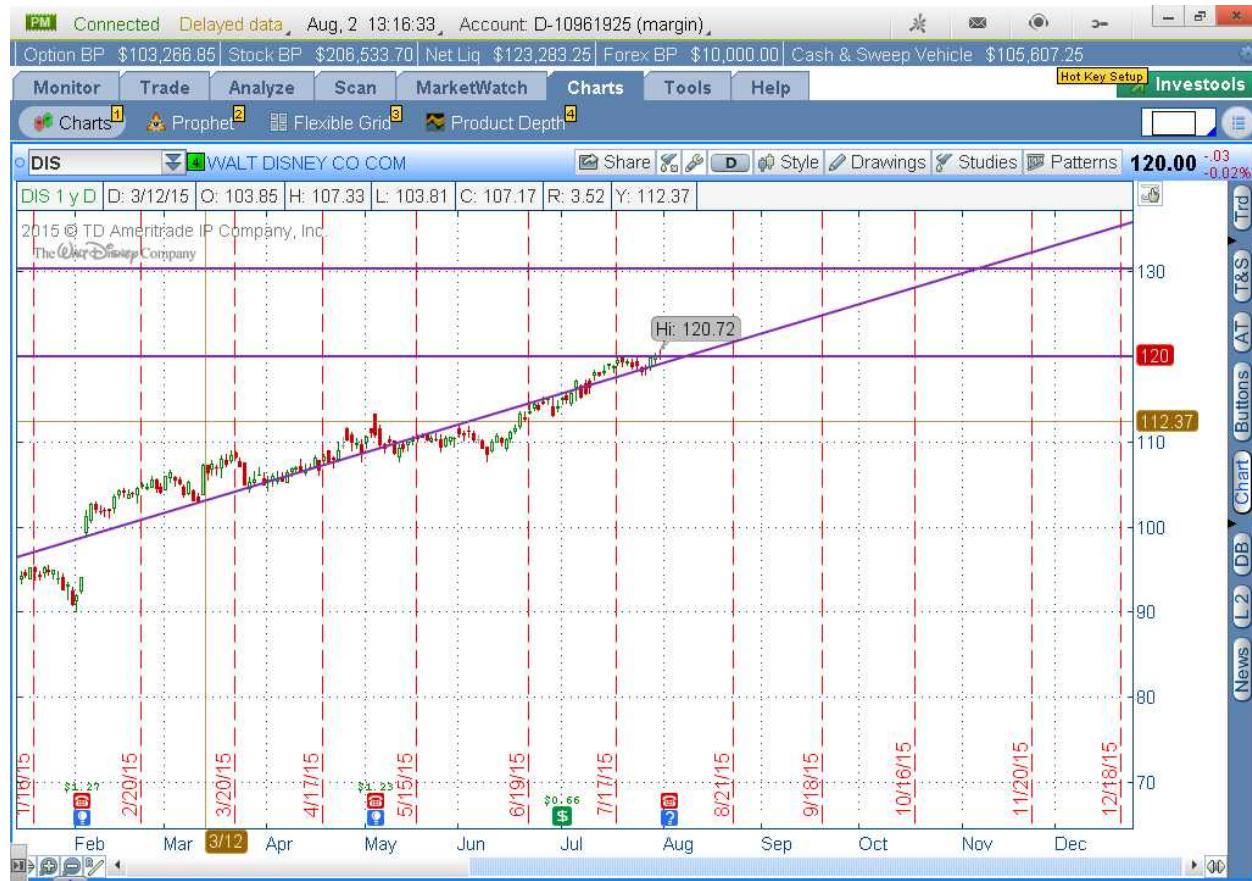
DIS Horizontal Call spread @ 0.65 (bumped the net debit by 0.02)



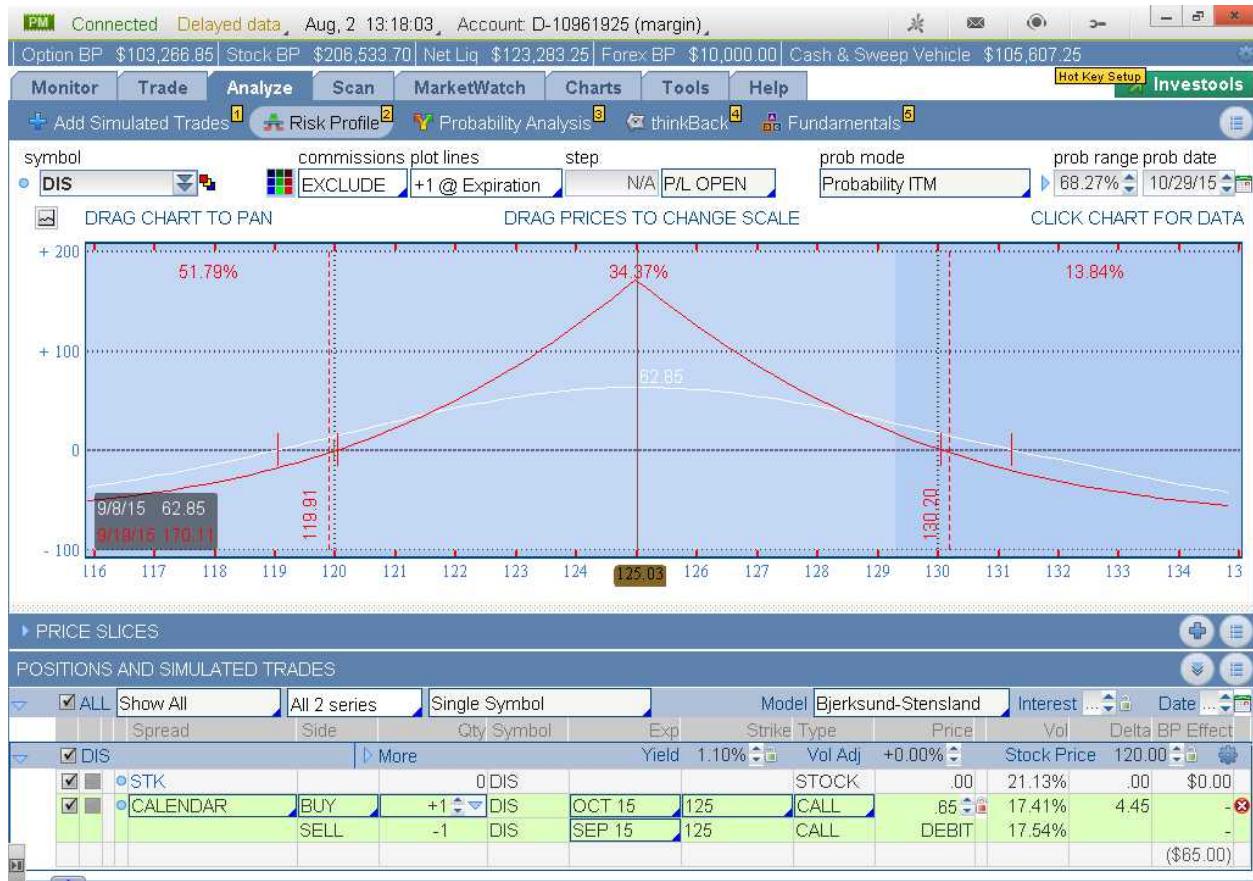
Target gain = 129.00 per contract if DIS @ 125 on 9/18 (last trading day for the short call)

ROI = 200%

Breakevens on 9/18 = 119.91 and 130.20 (see above)



We placed the price slices on the chart above – likely that DIS will move into the profit area (breakevens)

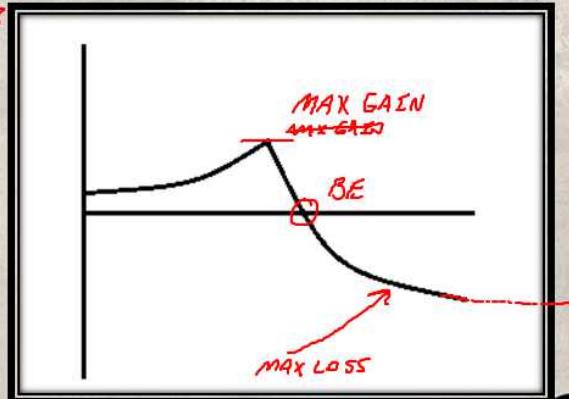


Model gain = 62.00 if DIS hits 125 on 9/8/2015

Position size = willing loss -500 / max loss of 65.00 per contract = 8 contracts in trade

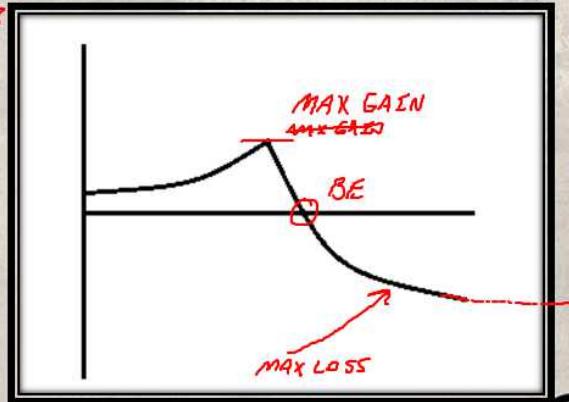
## BEAR PUT DIAGONAL

- ❖ Outlook -3 -2 (-1 0) , 23
  - Neutral to bearish
- ❖ Max Reward
  - Limited
- ❖ Risk
  - Limited to the net debit
- ❖ Break-evens
  - 1-2 break-evens
  - Use risk graph
- ❖ Probability of profit



## BEAR PUT DIAGONAL

- ❖ Outlook -3 -2 (-1 0) , 23
  - Neutral to bearish
- ❖ Max Reward
  - Limited
- ❖ Risk
  - Limited to the net debit
- ❖ Break-evens
  - 1-2 break-evens
  - Use risk graph
- ❖ Probability of profit



# BEAR PUT DIAGONAL

*NEGATIVE*

❖ ~~Positive~~ Delta

- Slightly bearish

❖ Positive Theta

- Time decay helps

❖ Neutral Gamma

- Low net Gamma
- As stock falls Delta changes slowly from (-) to (+)

✖ ❖ Positive Vega

- Profit as implied volatility rises
- Function of long put



# BEAR PUT DIAGONAL CASE STUDY

XYZ is trading for \$100

- ❖ Date: March 10<sup>th</sup>, 2015  
*1 mo. out (itm)*
- ❖ Sell April 95 put for \$1.85, Delta 0.15
  - Obligation to buy @ \$95  
*4 mos. out (itm)*
- ❖ Buy July 105 put for \$6, Delta 0.85
  - Right to sell @ \$105
- ❖ Risk-Reward
  - Net debit = \$4.15 *Max Loss*
  - Limited reward
  - 1-2 break-evens
  - Probability of max gain through expiration = see risk graph (too complex)





## BEAR PUT DIAGONAL RULES

---

### *REMEMBER ETFs*

- ❖ Stock over \$50 *NEUTRAL TO BEAR*
- ❖ STO near term + BTO long term
- ❖ BTO 2-12 months out and 1-2 strikes ITM
- ❖ STO 2-60 days out
  - STO ATM – neutral
  - STO OTM – ~~bullish~~ *BEARISH, STRIKE BELOW STOCK PRICE*
- ❖ Try to enter when IV is low *VIX*
- ❖ Short contract premium  $\geq$  10% of long contract premium
- ❖ Equal number of contracts on each leg



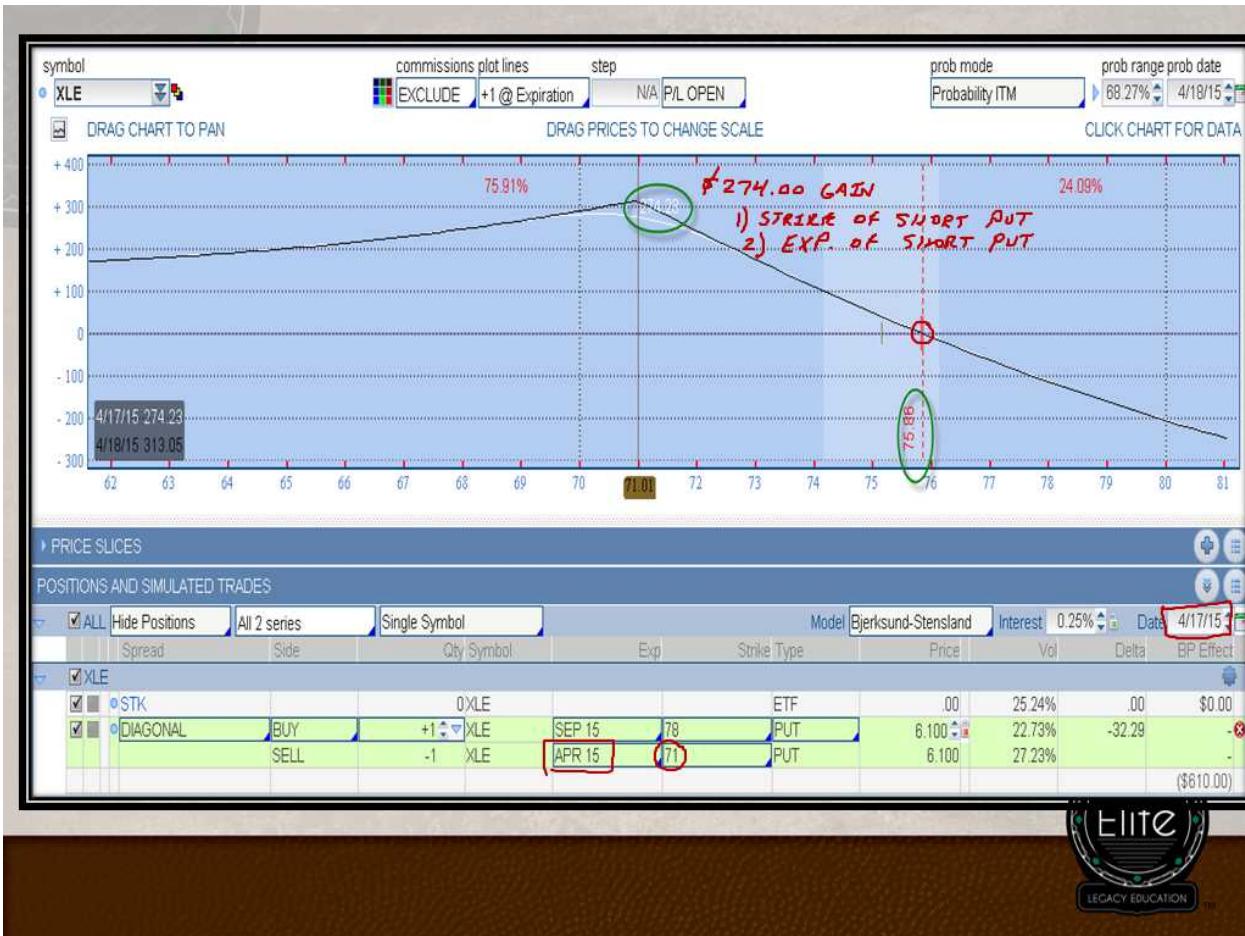


## BEAR PUT DIAGONAL EXAMPLE

---

- ❖ Example with XLE
  - XLE no earnings ETP
  - XLE @ \$75.17
  - Date: 3/10/2015
  - IV is medium – stock has been falling CHECK VIX
- ❖ BTO (1) Sep 78 put @ \$7.15 debit (ITM)
- ❖ STO (1) Apr 71 put @ \$1.05 credit (OTM)
- ❖ Net debit = \$6.10
- ❖ Cost of trade = (\$610.00) per contract (MAX LOSS)



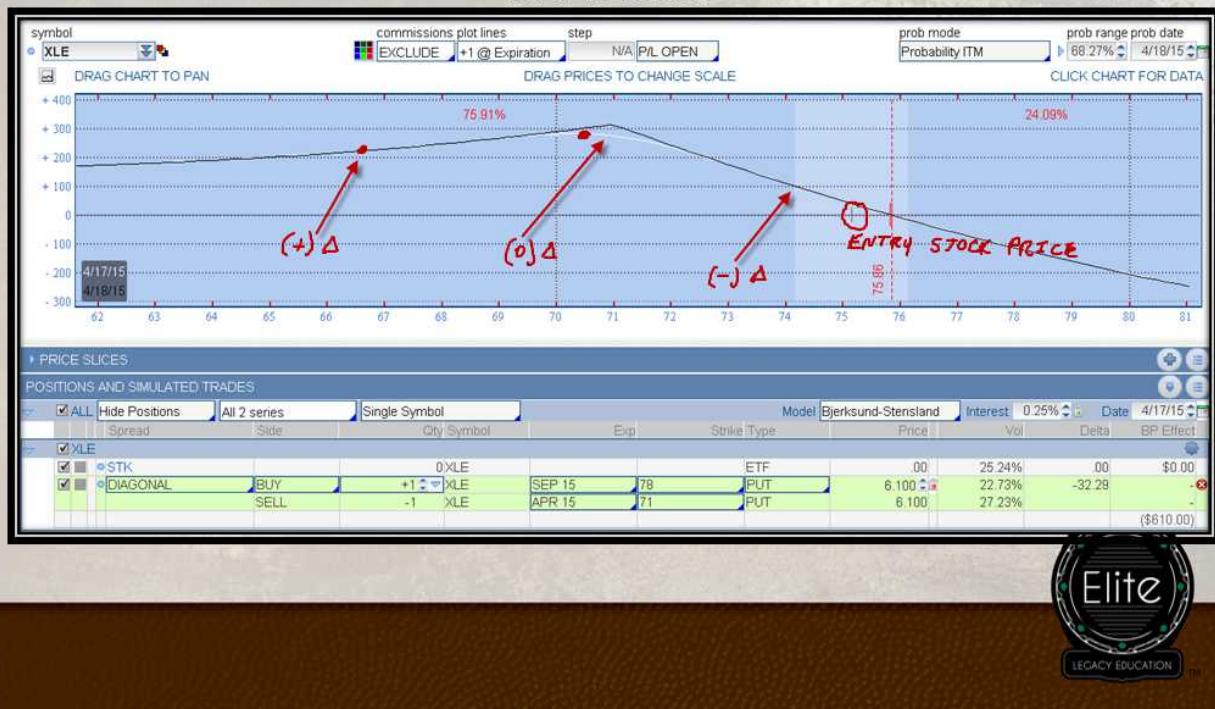


# BEAR PUT DIAGONAL EXAMPLE

- ❖ Max gain
  - Stock @ short put strike XLE  $\rightarrow$  71.00
  - At expiration of short put APRIL 2015
- ❖ Max loss
  - Net debit of trade \$6.10 OR \$610.00
  - Tremendous move up prior to short put expiry
- ❖ Break-even
  - 1-2 break-evens (1) BE  $\rightarrow$  75.86
  - Use risk graph
- ❖ Exit plans
  - ① ▪ Hold to short put expiration (H) THETA
  - ② ▪ Short put expires worthless }
  - ③ ▪ Short put ITM Buy to Close } LAST TRADING DAY OF SHORT PUT  
4/17/15
  - FINAL ▪ STO again



# BEAR PUT DIAGONAL DELTA



# BEAR PUT DIAGONAL VEGA

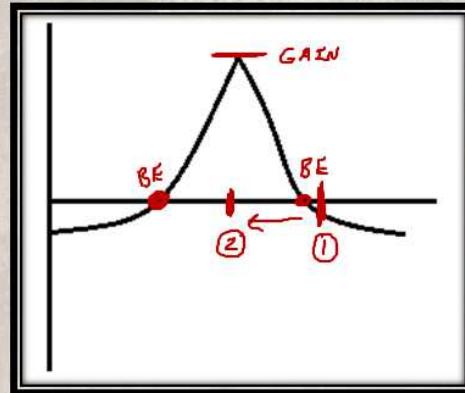


# BEAR PUT DIAGONAL THETA



## HORIZONTAL PUT

- ❖ Outlook -3[-2-1 o 1 + 3]
  - Bearish
- ❖ Max Reward
  - Limited
- ❖ Risk
  - Limited to the net debit
- ❖ Break-evens
  - 2 break-evens
  - Use risk graph
- ❖ Probability of profit



## HORIZONTAL PUT

### / ♦ Negative Delta

- Initially bearish, but can switch to bullish

### / ♦ ~~Positive Theta~~ NEUTRAL THETA

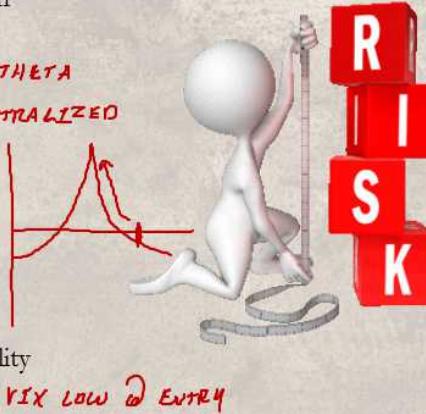
- Time decay helps NEUTRALIZED

### / ♦ Positive Gamma

- Delta accelerates
- Pronounced closer to expiration

### / ♦ Positive Vega

- Profit as implied volatility rises
- Function of long put



# HORIZONTAL PUT CASE STUDY

XYZ is trading for \$100

- ❖ Date: March 10<sup>th</sup>, 2015
- ❖ Target \$90  
*1 MO. OUT (OTM)*
- ❖ Sell April 90 put for \$1 *CREDIT*
  - Obligation to buy @ \$90
- ❖ Buy May 90 put for \$2 *DEBIT*
  - Right to sell @ \$90
- ❖ Risk-Reward
  - Net debit = \$1.00
  - Limited reward
  - 2 break-evens
  - Probability of max gain through expiration = see risk graph (too complex)



## HORIZONTAL PUT RULES

- ❖ Stock over \$50
- ❖ STO near term + BTO long term
- ❖ Same strikes
- ❖ BTO 2-3 months out
  - ATM neutral
  - OTM bearish *OTM PUT*
- ❖ STO 2-60 days out
  - ATM – neutral
  - OTM – bearish
- ❖ Try to enter when IV is low *VIX IS LOW*
- ❖ Short contract premium  $\geq$  10% of long contract premium
- ❖ Equal number of contracts on each leg



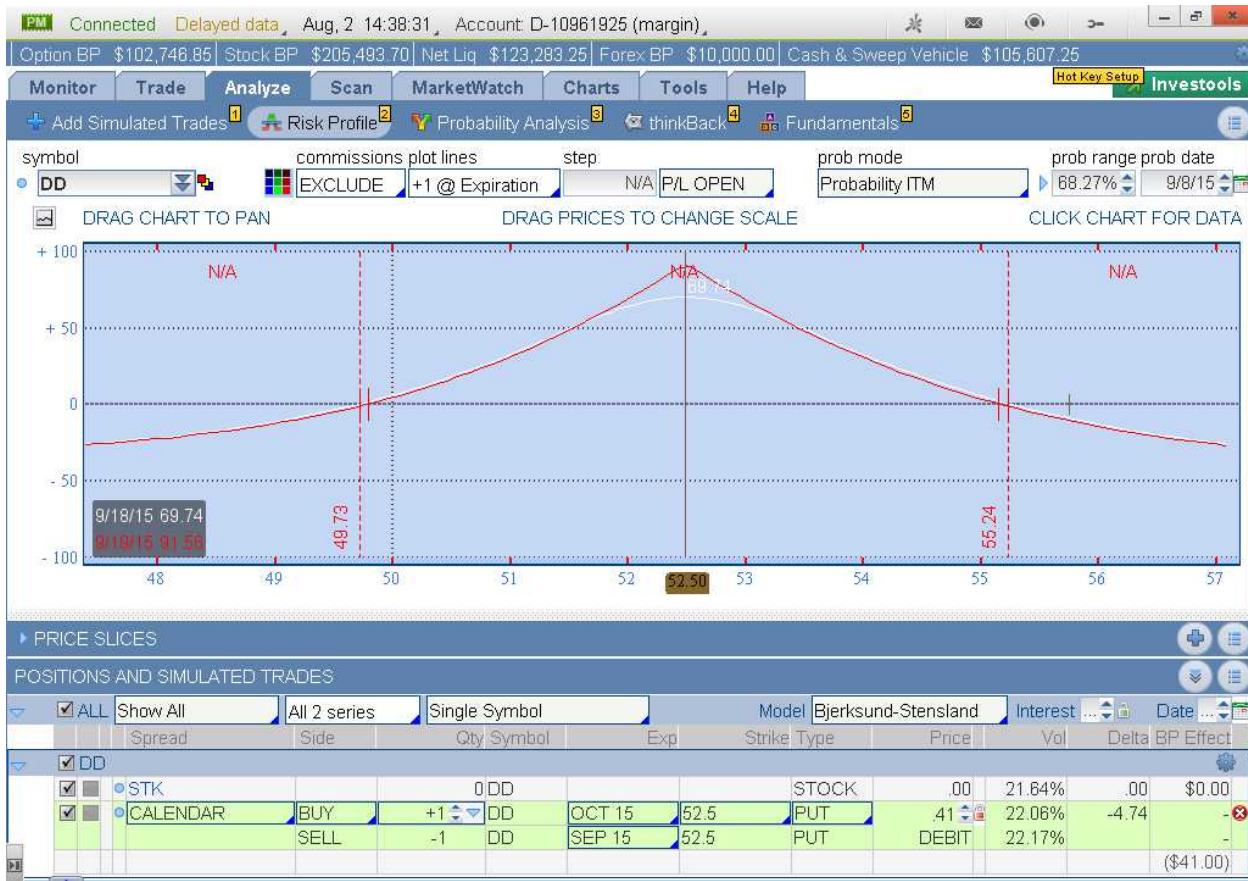


## HORIZONTAL PUT EXAMPLE

---

- ❖ Example with BIDU
  - BIDU no earnings through April 2015 expiration
  - BIDU @ 210.34
  - Date: 3/10/2015
  - IV is relatively low
- ❖ BTO (1) May 190 put @ \$4.02 debit
- ❖ STO (1) Apr 190 put @ \$1.38 credit
- ❖ Net debit = \$2.64
- ❖ Cost of trade = (\$264) per contract





Model gain = 69.00 per contract if DD @ 52.5 on 9/18/15

ROI = 69.00 target gain / 41.00 net debit = 168%

Breakevens on 9/18 = 49.73 and 55.24

1. Max loss = net debit of 41.00 per contract, it would take a large move down/up
2. Cost of trade = net debit of 41.00 per contract
3. Exit plans
  - a. Close the entire if DD touches 52.5 prior to Sep expiration – model gain 21.00 per contract if DD touches 52.5 on 9/1/2015
  - b. Or, close the entire position on 9/18/2015 (last trading day for the near term put)
  - c. No stop loss
4. Position size = willing loss 500.00 / 41.00 max loss per contract = 12 contracts

In order from least to most aggressive

Bullish

1. Bull Put
2. Horizontal Call
3. Bull Call

#### 4. Long Call

Bearish

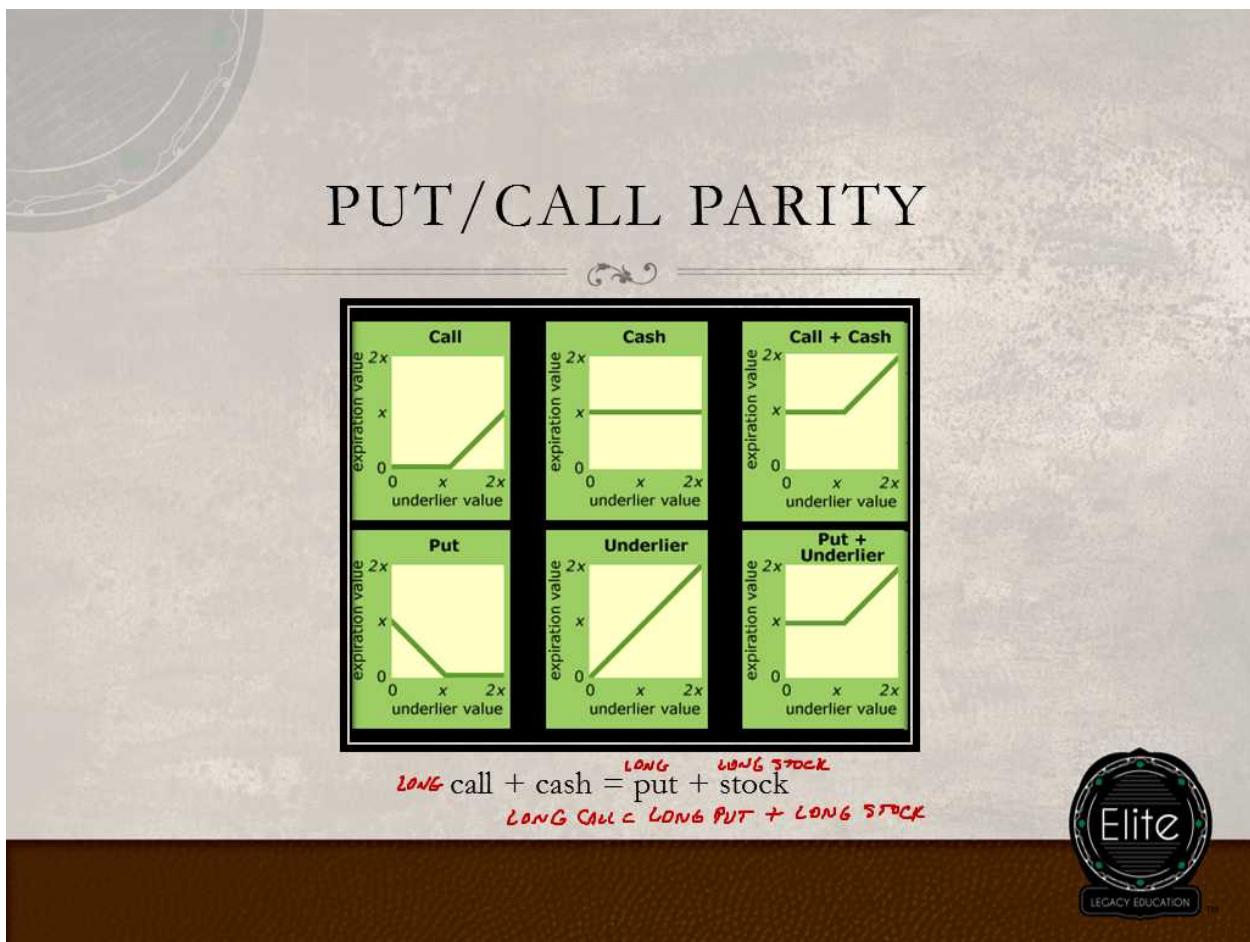
1. Bear Call
2. Horizontal Put
3. Bear Put
4. Long Put

Neutral

1. Iron Condor
2. Short Strangle
3. Iron Butterfly

Bi-directional

1. Inverted Butterfly
2. Long Strangle or Long Straddle



# PUT/CALL PARITY

## ❖ Long call example

- ❖ Long call = long stock + ~~short put~~  
❖ call + cash = put + stock

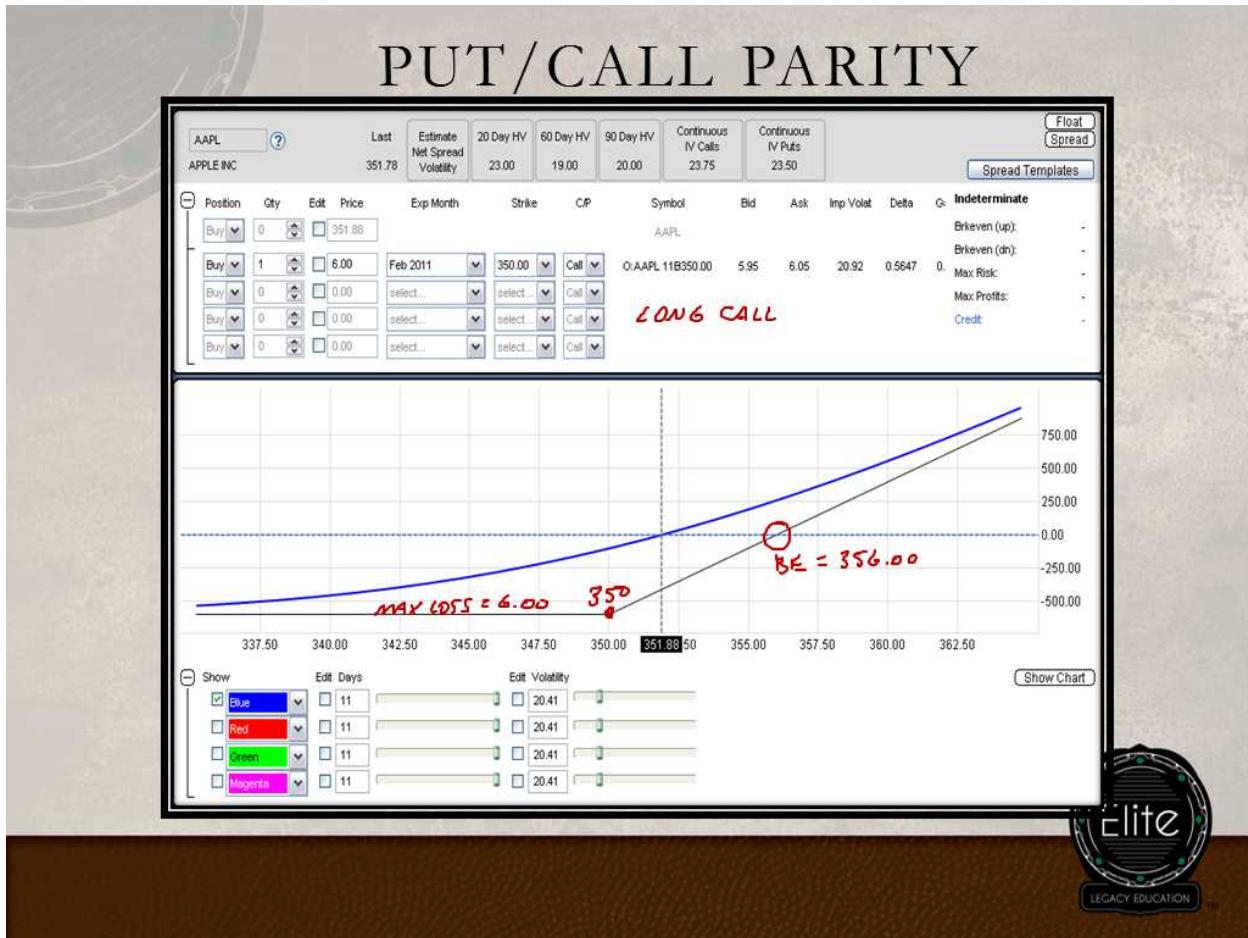
## ❖ AAPL @ \$351.78

- ❖ BTO 1 Feb 2011 350 call @ \$6.00

AAPL	(?)	Exp:	Feb 2011	Last	5 Day HV	20 Day HV	60 Day HV	90 Day HV	Continuous IV Calls	Continuous IV Puts	
APPLE INC				351.88	14.75	23.00	19.00	20.00	23.75	23.50	
Vega	Gamma	Delta	IV	OI	Volume	Net	Bid	Ask	Last	Symbol	Exp
0.0179	0.0013	0.9891	36.24	900	0	0.00	46.75	47.05	45.95	O:AAPL 11B305.00	Feb11 305.00
0.0407	0.0028	0.9710	36.85	7369	656	5.05	41.80	42.10	41.70	▲ O:AAPL 11B310.00	Feb11 310.00
0.0423	0.0033	0.9698	34.24	1461	378	5.05	36.85	37.10	36.85	▲ O:AAPL 11B315.00	Feb11 315.00
0.0474	0.0042	0.9649	30.57	13112	2075	5.10	31.95	32.15	32.10	▲ O:AAPL 11B320.00	Feb11 320.00
0.0797	0.0070	0.9326	30.51	4354	798	4.75	27.05	27.25	27.00	▼ O:AAPL 11B325.00	Feb11 325.00
0.0869	0.0089	0.9249	26.01	20092	4037	4.60	22.25	22.50	22.20	★ O:AAPL 11B330.00	Feb11 330.00
0.1261	0.0135	0.8748	24.99	8619	3060	4.35	17.60	17.85	17.60	▼ O:AAPL 11B335.00	Feb11 335.00
0.1711	0.0192	0.7998	23.90	24918	8790	3.90	13.30	13.40	13.35	▲ O:AAPL 11B340.00	Feb11 340.00
0.2107	0.0268	0.7045	21.16	14790	11525	3.30	9.25	9.45	9.40	▲ O:AAPL 11B345.00	Feb11 345.00
0.2404	0.0309	0.5647	20.92	27745	23507	2.40	5.95	6.05	6.00	▲ O:AAPL 11B350.00	Feb11 350.00



# PUT/CALL PARITY



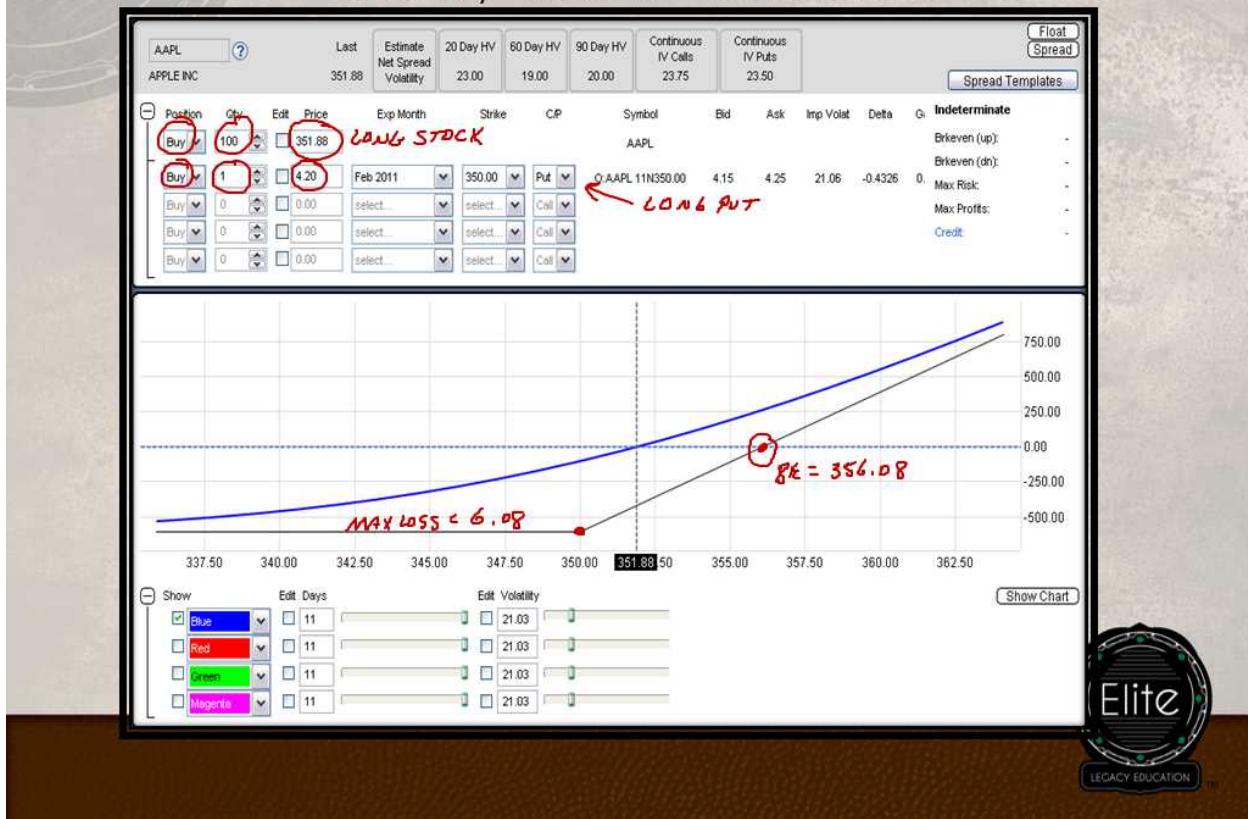
# PUT/CALL PARITY

- ❖ AAPL @ 351.88
- ❖ Buy 100 shares @ 351.88
- ❖ BTO 1 Feb 350 put @ 4.20
- ❖ Feb 18<sup>th</sup>, 2011 expiration

Symbol	Exp	Symbol	Last	Bid	Ask
O:AAPL 11B305.00	Feb11 305.00	O:AAPL 11N305.00	0.11	0.09	0.11
O:AAPL 11B310.00	Feb11 310.00	O:AAPL 11N310.00	0.14	0.13	0.15
O:AAPL 11B315.00	Feb11 315.00	O:AAPL 11N315.00	0.19	0.19	0.20
O:AAPL 11B320.00	Feb11 320.00	O:AAPL 11N320.00	0.24	0.24	0.26
O:AAPL 11B325.00	Feb11 325.00	O:AAPL 11N325.00	0.38	0.34	0.38
O:AAPL 11B330.00	Feb11 330.00	O:AAPL 11N330.00	0.59	0.55	0.59
O:AAPL 11B335.00	Feb11 335.00	O:AAPL 11N335.00	0.94	0.89	0.93
O:AAPL 11B340.00	Feb11 340.00	O:AAPL 11N340.00	1.51	1.49	1.54
O:AAPL 11B345.00	Feb11 345.00	O:AAPL 11N345.00	2.54	2.51	2.58
O:AAPL 11B350.00	Feb11 350.00	O:AAPL 11N350.00	4.25	4.15	4.25



# PUT/CALL PARITY



# PUT/CALL PARITY

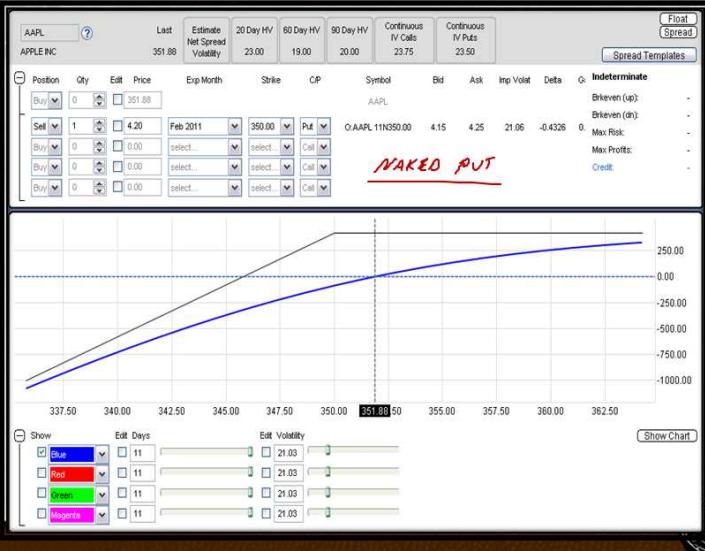
- ❖ Naked Put = Covered Call
- ❖ Put/Call parity:  
$$\text{call} + \text{cash} = \text{put} + \text{stock}$$
- ❖ Rearrange the equation:  
$$(-) \text{put} + \text{cash} = (-) \text{call} + \text{stock}$$
- ❖ AAPL @ \$351.88  
Covered call on AAPL  
Buy 100 shares @ \$351.88 + STO 1 Feb 350 call @ \$6



## PUT/CALL PARITY

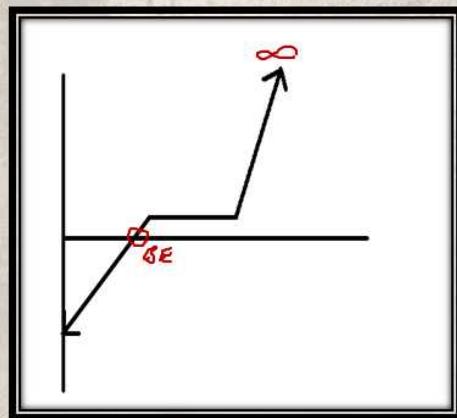


## PUT/CALL PARITY



## BULLISH RISK REVERSAL

- ❖ Outlook -3 -2 -1 □ 1 2 3 (4)
  - Extremely bullish
- ❖ Max Reward
  - Unlimited
- ❖ Risk
  - Limited by stock dropping to 0.00
  - **LESS RISK VS. LONG STOCK**
- ❖ Break-evens
  - 1 break-even
  - Short put strike – net credit
- ❖ Probability of profit



# BULLISH RISK REVERSAL

## ❖ Positive Delta

- Want stock to rise dramatically

## ❖ Negative Theta

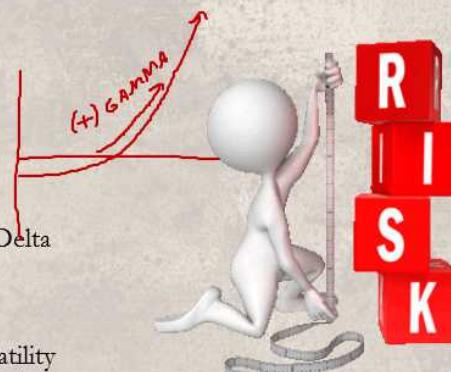
- Time decay hurts

## ❖ Positive Gamma

- As stock price rises Delta increases

## ❖ Positive Vega

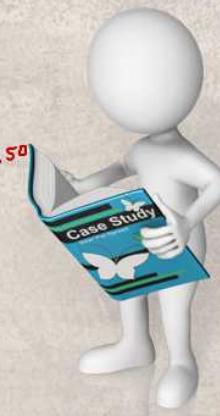
- Profit as implied volatility rises  
**CHECK VIX**
- Function of long calls



# BULLISH RISK REVERSAL CASE STUDY

XYZ is trading for \$100

- ❖ Date: March 11<sup>th</sup>, 2015
- ❖ Target \$125, or higher
- 1st ❖ Sell (1) May <sup>2 mos. out (4TM)</sup> 100 put for \$3.50 CREDIT
  - Obligation to buy @ \$100 (100 shares)
- 2nd ❖ Buy (5) May <sup>2 mos. out (OTM)</sup> 115 calls for \$0.50 each  $\times 5 \text{ CONTRACTS} = \$2.50$ 
  - Right to buy @ \$115 (500 shares)
- ❖ Risk-Reward
  - Net credit = \$1.00
  - Unlimited reward
  - 1 break-even = short put strike – net credit
  - Probability of profit through expiration  $\approx 1.00 - \text{short put Delta}$



# BULLISH RISK REVERSAL RULES

- ✓❖ Select an underlying that we believe will move up strongly
- ✓❖ STO an ATM or OTM put
  - ❖ STO ATM = more aggressive
  - ❖ STO OTM = less aggressive
- ✓❖ BTO 1, or more, OTM calls
  - Consider using a call strike around the projected target price
- ✓❖ The farther OTM put strike we STO, the less premium we have to buy calls THROUGH LOWER BREAK EVEN POINT
- ✓❖ If call(s) strike is closer to put strike, then the number of call(s) we can purchase will drop
- ✓❖ Net credit of at least \$0.01 in trade
- ✓❖ We are naked on the short put
- ✓❖ If we BTO more than 1 call for every put we STO, then try to enter when IV is low



## BULLISH RISK REVERSAL EXAMPLE

TBT @ \$40.50

Target is old support level of \$46.00

Date: 2/7/2011

STO 1 June 41 put @ \$3.22 credit

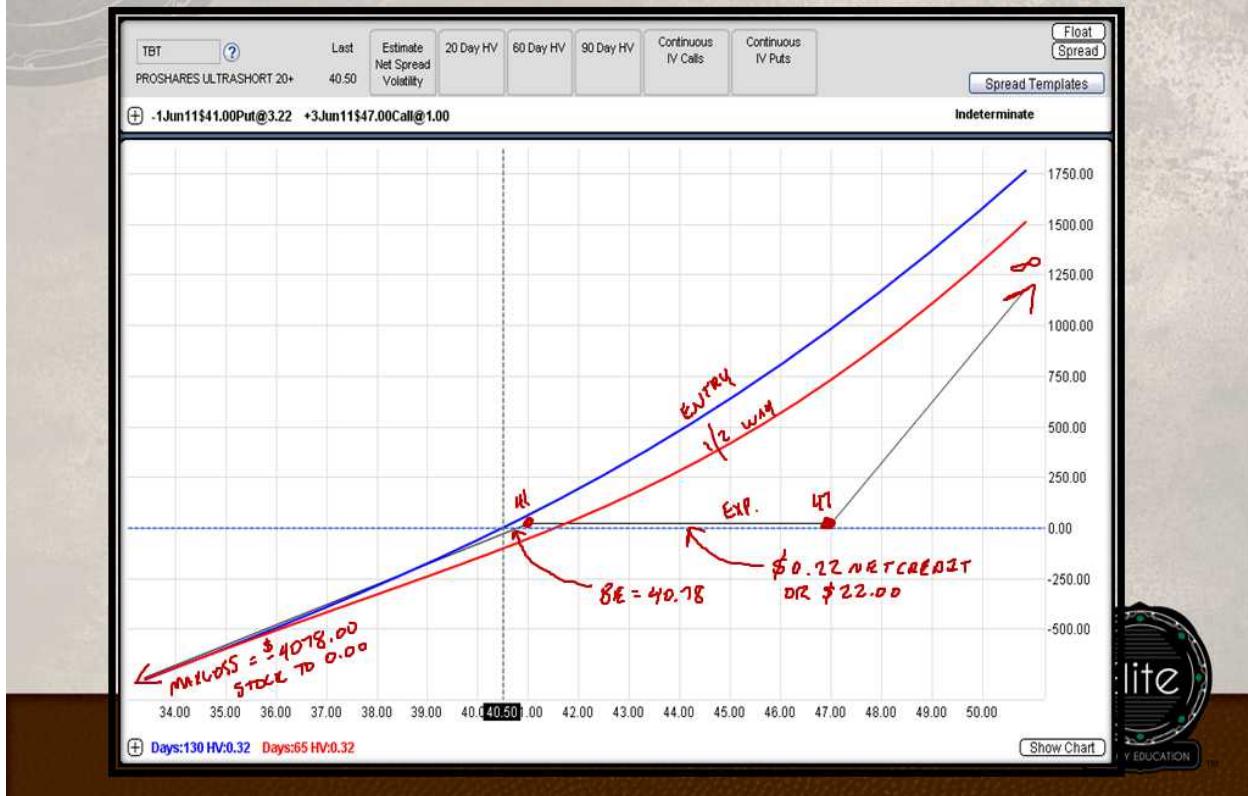
BTO 3 June 47 calls @ \$1.00 cost

Net credit on trade = \$3.22 - (\$1.00 X 3 calls) = \$0.22

- ❖ Margin required to place the trade is same as selling to open a naked put:
  - 20% of the underlying stock price – distance OTM + premium
- ❖ We also spent \$3.00 debit on the long calls
- ❖ Total buying power effect under Reg.T = \$1035.71 (based on a popular broker)



# BULLISH RISK REVERSAL EXAMPLE

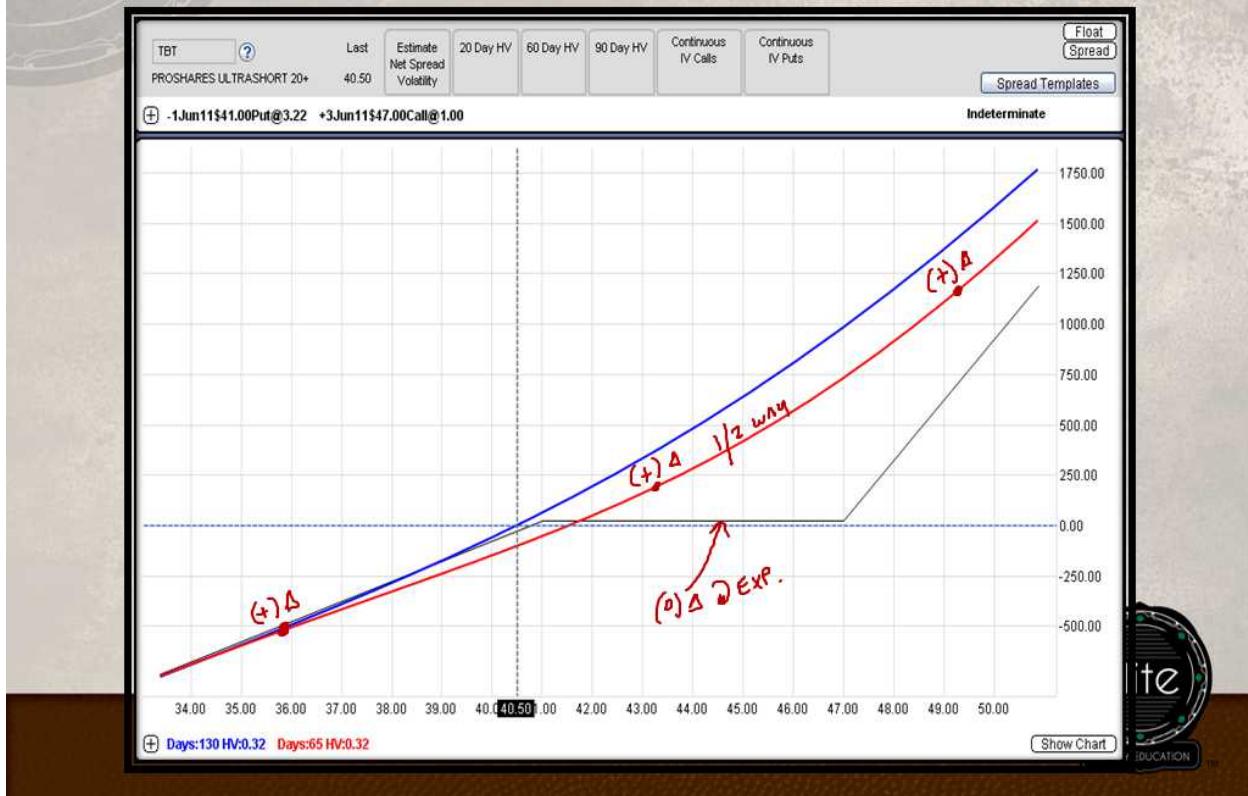


## BULLISH RISK REVERSAL EXAMPLE

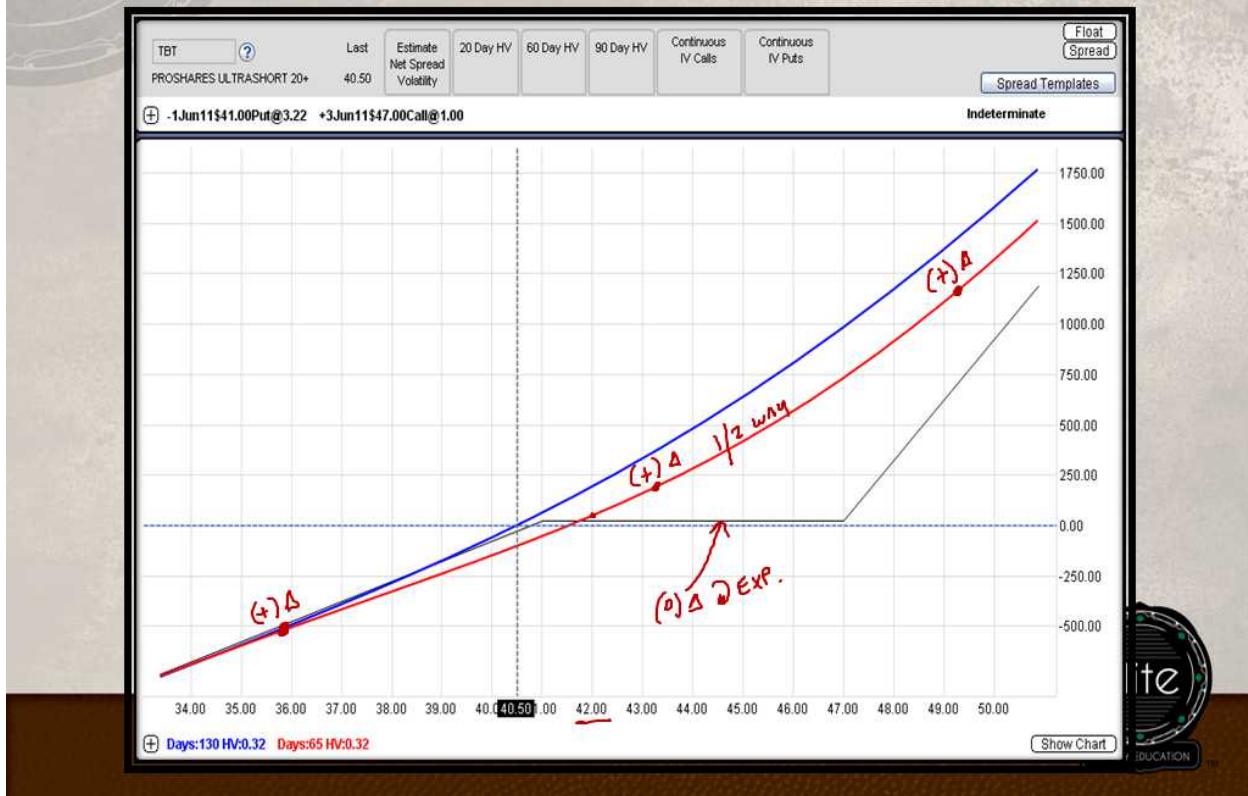
- ❖ Max gain
  - Unlimited
  - Long calls have unlimited upside
- ❖ Max loss  $41.00 - 0.22 = 40.78$ , or \$4078.00
  - Strike of put – net credit
  - Stock must drop to 0.00
- ❖ Break-even
  - 1 break-even
  - Strike of put – net credit = 40.78
- ❖ Margin required
  - Let broker calculate
  - Margin held on short put + net debit of long calls \$1075.00 *DYNAMIC*



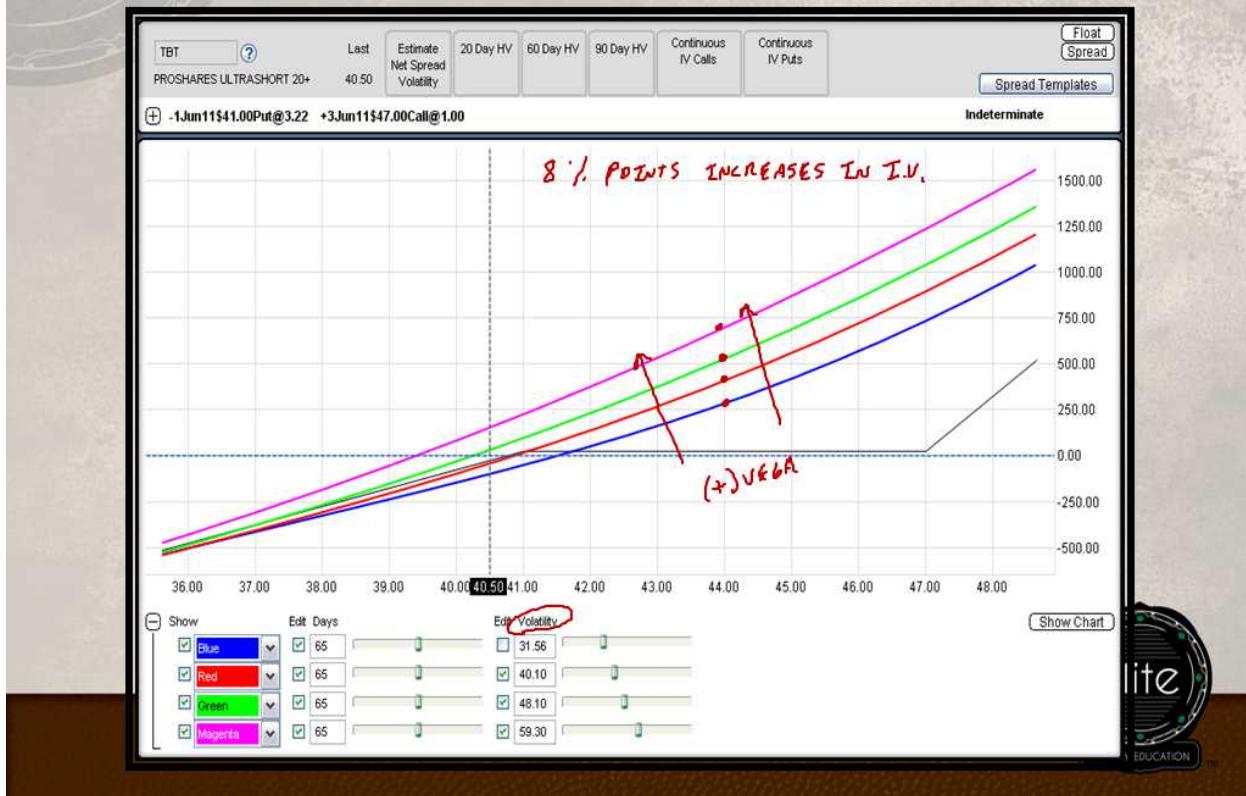
# BULLISH RISK REVERSAL DELTA



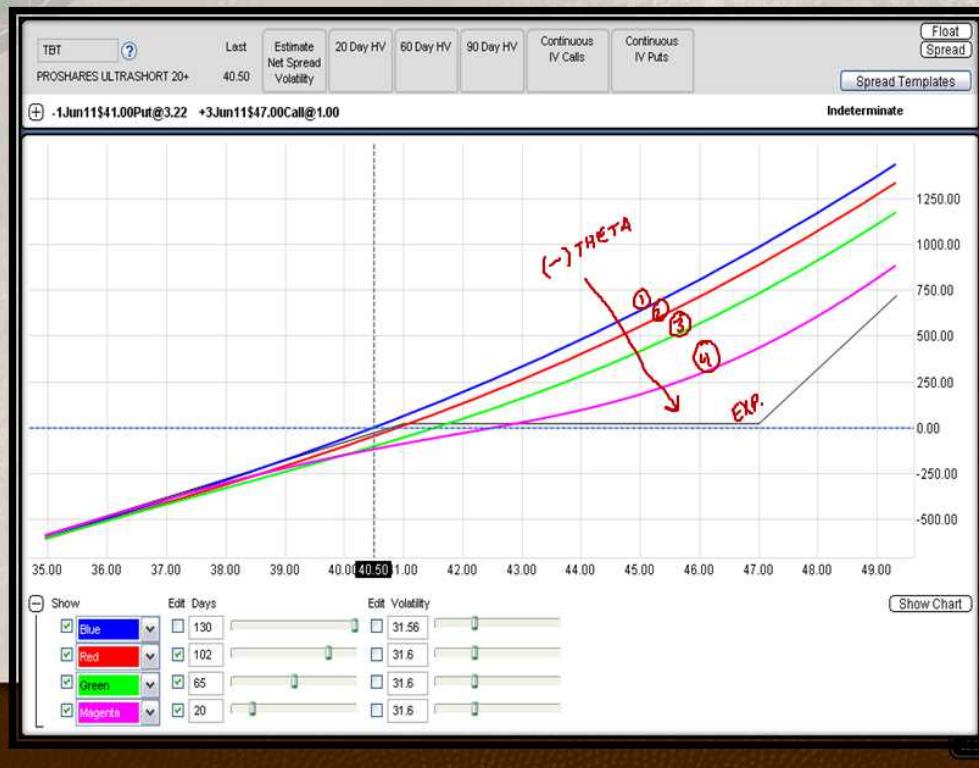
# BULLISH RISK REVERSAL DELTA



# BULLISH RISK REVERSAL VEGA



# BULLISH RISK REVERSAL THETA



We want the stock to up quickly – time decay is hurting

## BULLISH RISK REVERSALS

### ❖ Exit strategies

- ① ■ Ostrich approach, set it and forget it 😟 DANGEROUS
- ② ■ Close trade at a predetermined time (1/2 way to expiration) 😊
- ③ ■ Close trade if we hit the predetermined target (old support becomes new resistance) TBT HITS \$16.00 😊
- ④ ■ Close trade if we lose a predetermined amount (willing loss per trade) 😊
- There are adjustments...next page 😊



## BULLISH RISK REVERSALS

### ❖ Adjustments

- If the stock rises to where the short put is near worthless, then BTC the short put 
- ✓ ▪ Keep the long calls and let them run (free) 
- ✓ ▪ The risk of trade is more a function of the short put
- ✓ ▪ At a later date, we could STO another put ATM or OTM at a higher strike to further offset cost/time decay on long calls





UA Bullish Risk Reversal

UA @ 99.33

8/2/15

PM Connected Delayed data, Aug, 2 15:45:42, Account D-10961925 (margin)

Option BP \$102,746.85 Stock BP \$205,493.70 Net Liq \$123,283.25 Forex BP \$10,000.00 Cash & Sweep Vehicle \$105,607.25

Monitor Trade Analyze Scan MarketWatch Charts Tools Help Hot Key Setup Investools

Add Simulated Trades Risk Profile Probability Analysis thinkBack Fundamentals

UA UNDER ARMOUR INC COM CLASS A Company Profile ETB B: 99.20 99.33 +.05  
A: 100.00 +0.05%

UNDERLYING Last X Net Chng Bid X Ask X Size Volume Open High Low  
99.33 N + .05 99.20 K 100.00 K 0 x 0 2,358 RA? 99.20 100.00 99.70

PRICE SLICES

POSITIONS AND SIMULATED TRADES

ALL Show All All 1 series Single Symbol Model Bjerkstrand-Stensland Interest ... Date ...  
Spread Side Qty Symbol Exp Strike Type Price Vol Delta BP Eff.

ORDER ENTRY TOOLS

ORDER ENTRY AND SAVED ORDERS

ORDER ENTRY SAVED ORDERS

Spread	Side	Qty	Pos Eff.	Symbol	Exp	Strike	Type	Link	Price	Order	TIF	Exch.
CUSTOM	BUY	+2	AUTO	UA	OCT 15	110	CALL		- .55	LMT	LIMIT	DAY
	SELL	-1	AUTO	UA	OCT 15	85	PUT			CREDIT		BEST

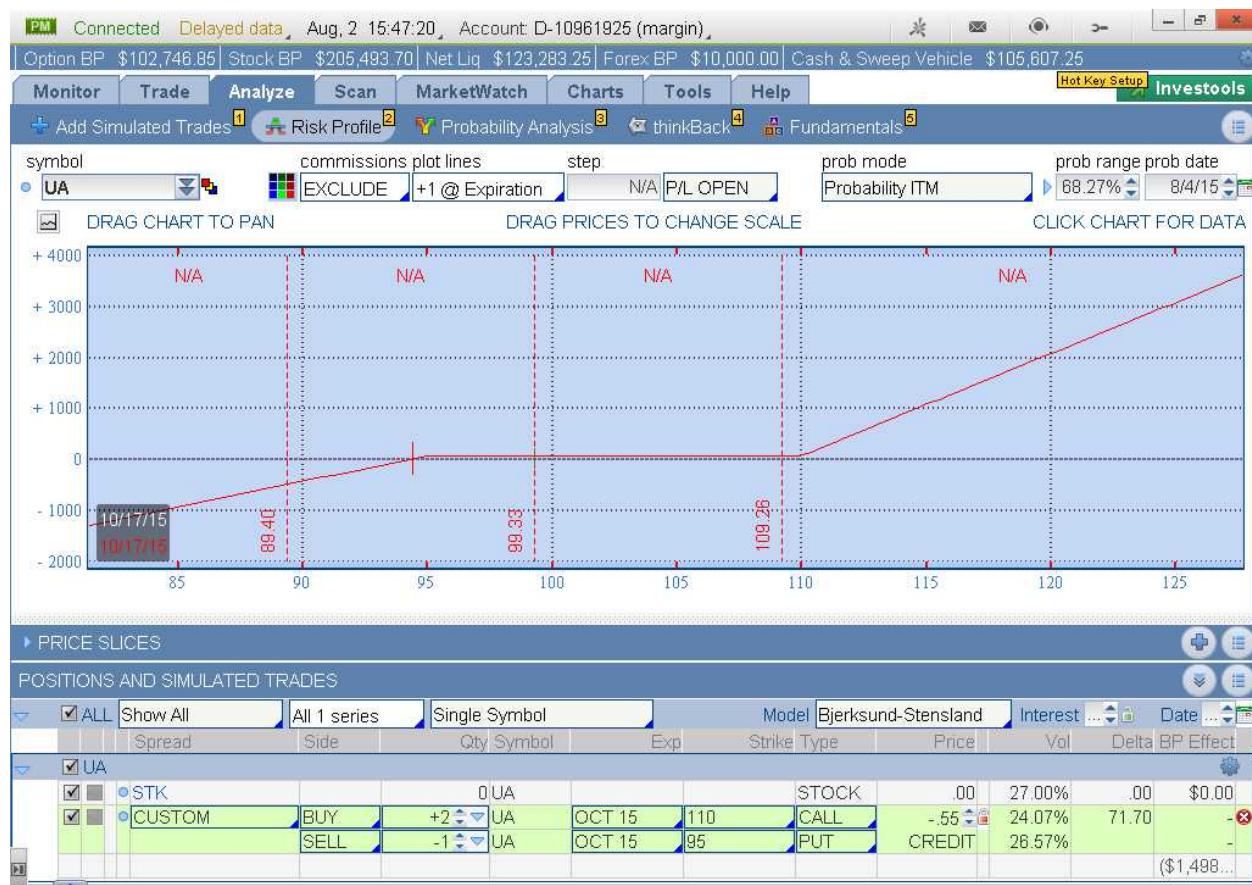
Advanced Order: Single Order Mid -.82 -.35 Nat Delete Confirm and Send

ORDER AND STRATEGY BOOK Orders: ALL 3 working, 0 filled orders, 0 total fills <>> Cancel

ORDERS STRATEGIES

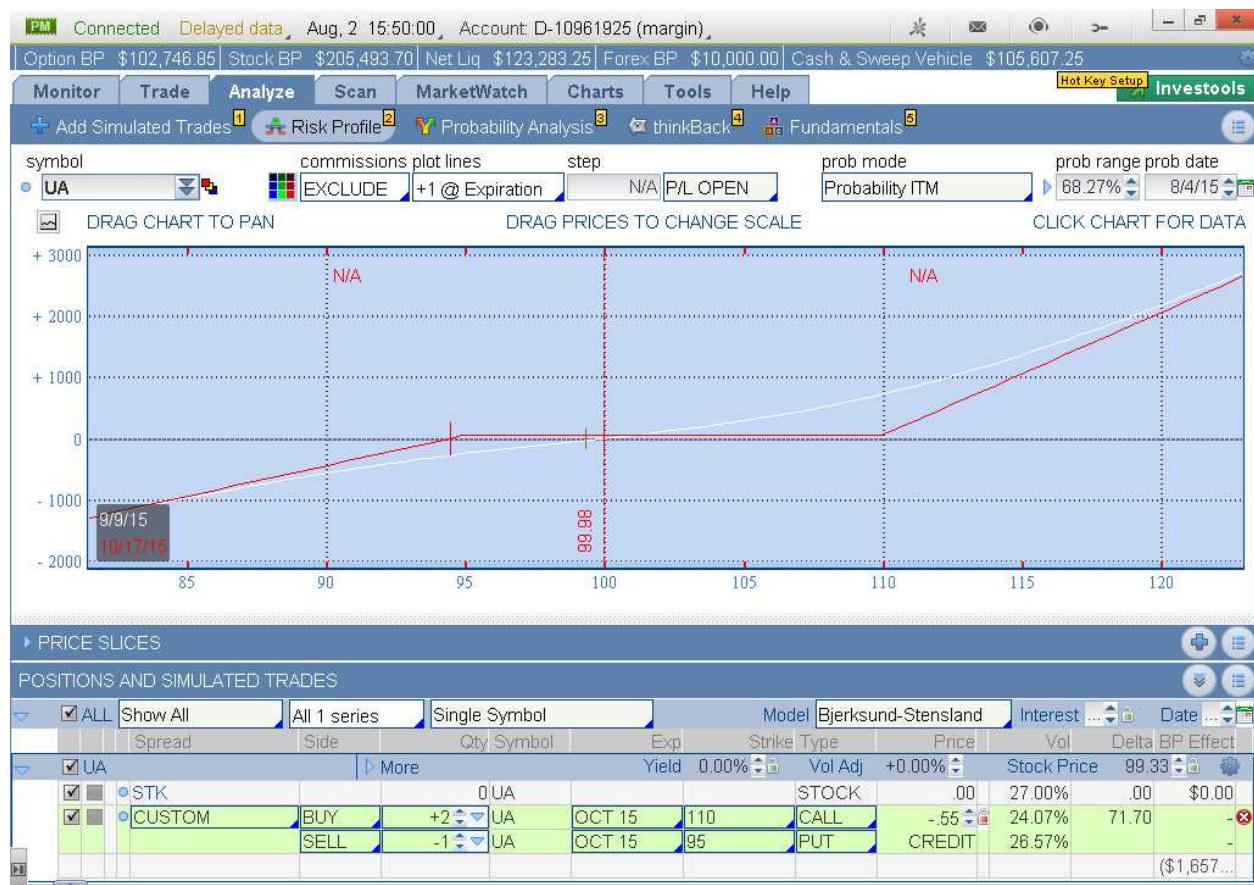
Time	Order ID	Description	Status
7/31/15 17:42:54	522982679	BUY +1 VERTICAL PANW 100 DEC 15 185/220 CALL @12.05 LMT [TO OPEN/TO OPEN]	WORKING
8/1/15 12:22:15	523082426	(Replacing #523082422) BUY +2 VERTICAL NSC 100 SEP 15 85/80 PUT @2.04 LMT [TO OPE...]	WORKING
8/2/15 13:56:43	523090724	BUY +8 CALENDAR DIS 100 OCT 15/SEP 15 125 CALL @ 85 LMT [TO OPEN/TO OPEN]	WORKING

Net credit = 0.55 (we dialed this back from 0.62 mid)

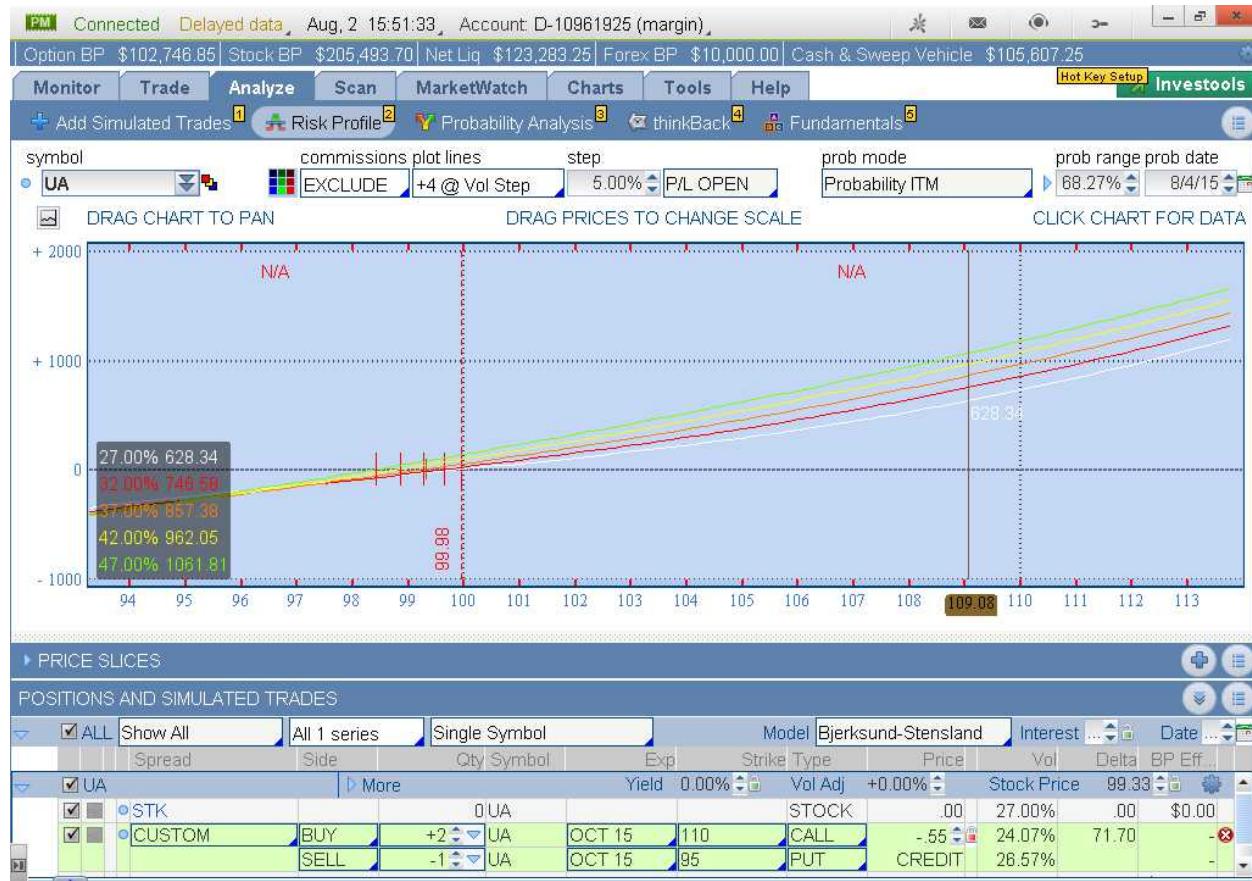


UA Bullish Risk Reversal @ 0.55 net credit

Risk graph above is at October expiration



Model date is 9/8/15 – breakeven is 99.98, and the current stock price is 99.33



If IV increases, then we can model the results using the Vol steps (see above)

**Order Confirmation Dialog**

Account:	D-10961925 (margin)	<b>paper money</b>	Auto send with shift click	Single Account	Save last used mode
Order Description	BUY +1 2/-1 CUSTOM UA 100 OCT 15/OCT 15 110/95 CALL/PUT @-.55...				
Break Even Stock Prices	94.45				
Max Profit	Infinite				
Max Loss	\$8,445.00 (not including possible dividend risk)				
Cost of Trade including commissions	credit \$55.00 - \$4.50 = credit \$50.50				
Buying Power Effect	(\$1,781.10)				
Resulting Buying Power for Stock	\$201,931.50				
Resulting Buying Power for Options	\$100,965.75				
Note:					
<b>SAVE</b>		<b>EDIT</b>	<b>DELETE</b>	<b>SEND</b>	

Confirmation of order

Connected Delayed data, Aug, 2 15:54:21, Account D-10961925 (margin)

Option BP \$100,965.75 Stock BP \$201,831.50 Net Liq \$123,283.25 Forex BP \$10,000.00 Cash & Sweep Vehicle \$105,607.25

**Monitor Trade Analyze Scan MarketWatch Charts Tools Help Hot Key Setup Investools**

Activity and Positions 1 Account Statement 2 FX Statements 3 Strategy Roller 4

Today's Trade Activity

**Working Orders: 4 orders**

	Time Placed	Spread	Side	Qty	Pos Ef	Symbol	Exp	Strike	Type	Price	TIF	Mark Status
8/2/15 15:53:36	CUSTOM		BUY	+2 TO OP...	UA	OCT ...	110	CALL	.55	LMT	DAY	.625 WORKING
			SELL	-1 TO OP...	UA	OCT ...	95	PUT	CRE...			
8/2/15 13:56:43	CALENDAR		BUY	+8 TO OP...	DIS	OCT ...	125	CALL	.85	LMT	DAY	.625 WORKING
			SELL	-8 TO OP...	DIS	SEP 15	125	CALL	DEBIT			
8/1/15 12:22:15	VERTICAL RE #523082422		BUY	+2 TO OP...	NSC	SEP 15	85	PUT	2.04	LMT	DAY	2.00 WORKING
			SELL	-2 TO OP...	NSC	SEP 15	80	PUT	DEBIT			
7/31/15 17:42:00	VERTICAL		BUY	+1 TO OP...	PANW	DEC ...	185	CALL	12.05	LMT	DAY	11.90 WORKING
			SELL	-1 TO OP...	PANW	DEC ...	220	CALL	DEBIT			

**Filled Orders** Show average fill prices >><<

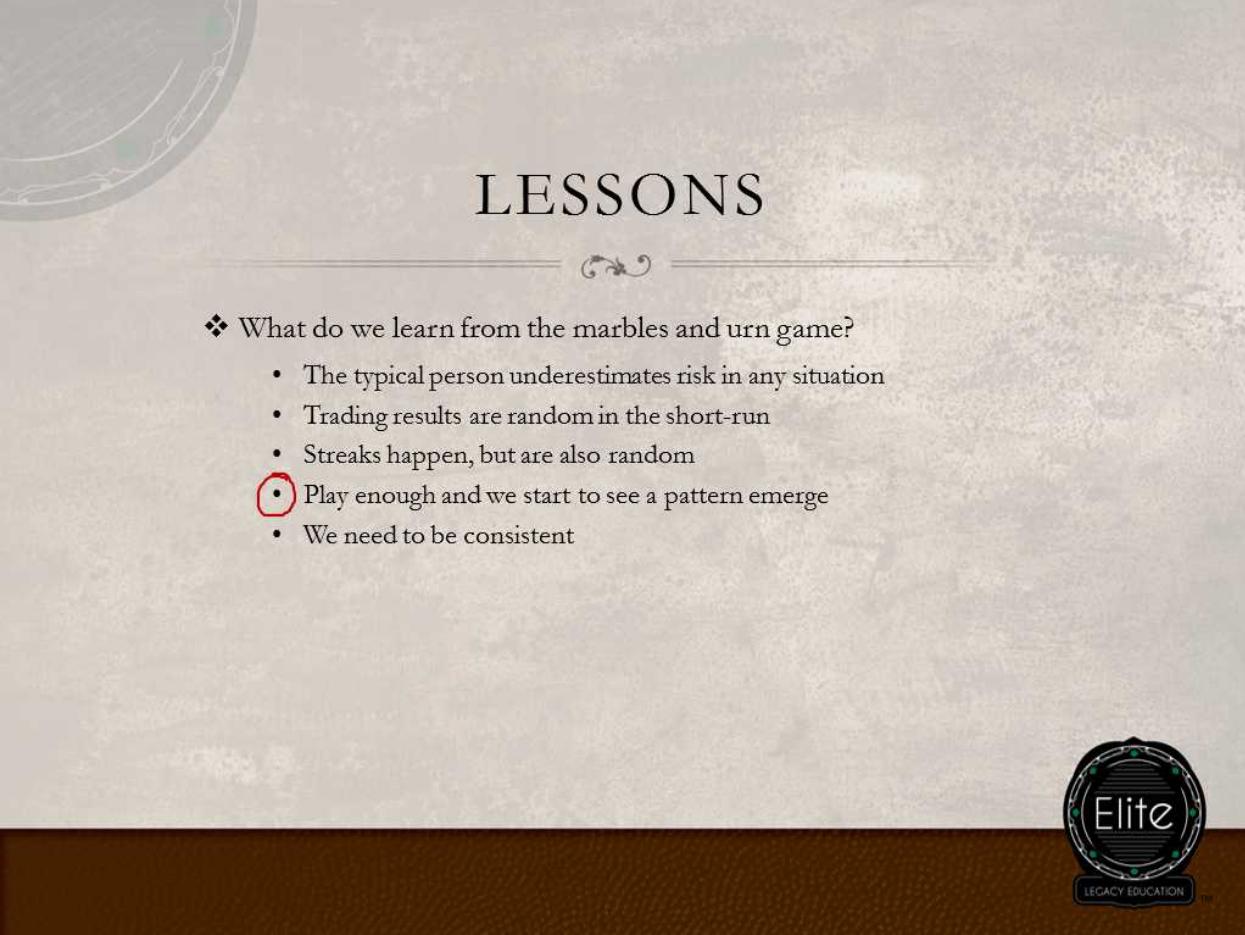
**Cancelled Orders: 1 order** >><<

**Rolling Strategies** >><<

**Position Statement** adjust account Beta Weighting NOT WEIGHTED

**None**

Instrument	Qty	Days	Mark	Mrk Chng	% Change	P/L Open	P/L Day	EP Effect
AAPL	\$				-0.87%	(\$32.50)	\$0.00	\$0.00
CBI					-0.02%	(\$10.00)	\$0.00	\$0.00
CSIQ	400		26.855	0	+0.32%	(\$858.00)	\$0.00	\$5,371.00
CTRP					+1.26%	(\$82.50)	\$0.00	\$0.00
DIS					-0.02%	\$0.00	\$0.00	(\$520.00)
FEYE					-6.85%	(\$87.50)	\$0.00	(\$2,559.90)
FSLR					-2.23%	\$297.50	\$0.00	\$0.00
GS	\$				-1.03%	(\$410.00)	\$0.00	\$0.00
ILMN					+0.20%	\$0.00	\$0.00	\$0.00
IVM					+0.55%	\$82.50	\$0.00	(\$1,000.00)
NSC	\$				-1.71%	\$0.00	\$0.00	(\$408.00)



# LESSONS

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- ❖ What do we learn from the marbles and urn game?
  - The typical person underestimates risk in any situation
  - Trading results are random in the short-run
  - Streaks happen, but are also random
  - Play enough and we start to see a pattern emerge
    - We need to be consistent

