

AAII San Diego Options Trading SIG

Calendar Spreads II & High Probability SPX Put Credit Spread

November 18, 2023

- Previous meetings: www.aaisandiego.com/sub-groups/options-trading/

Flexible Meeting Fees

- Voluntary contributions pay for our expenses.
- Many generous, voluntary online contributions were made during COVID
- Thank You.
- Ways contribute:
 - Cash or check
 - https://www.paypal.com/donate/?hosted_button_id=2M5F9F7L4C2HU
 - Use this QR code



Presentation Outline

Market Description

Calendar Spreads

SPX Put Credit Spread

Why Options?

Options allow an investor to achieve a variety of objectives:

- Risk Reduction: protect stock holdings from a decline in market price (long puts).
- Generate income (calendars, credit spreads).
- Stock acquisition at a lower price (short puts).
- Market speculation at lower risk and greater reward (long calls).



Underlying Assets

- Stock (TSLA, AAPL, AMZN)
- ETF (SPY, QQQ, IWN)
- Index (SPX, VIX, RUT, NDX)
- Futures (/ES, /MES, /NQ)

The Market

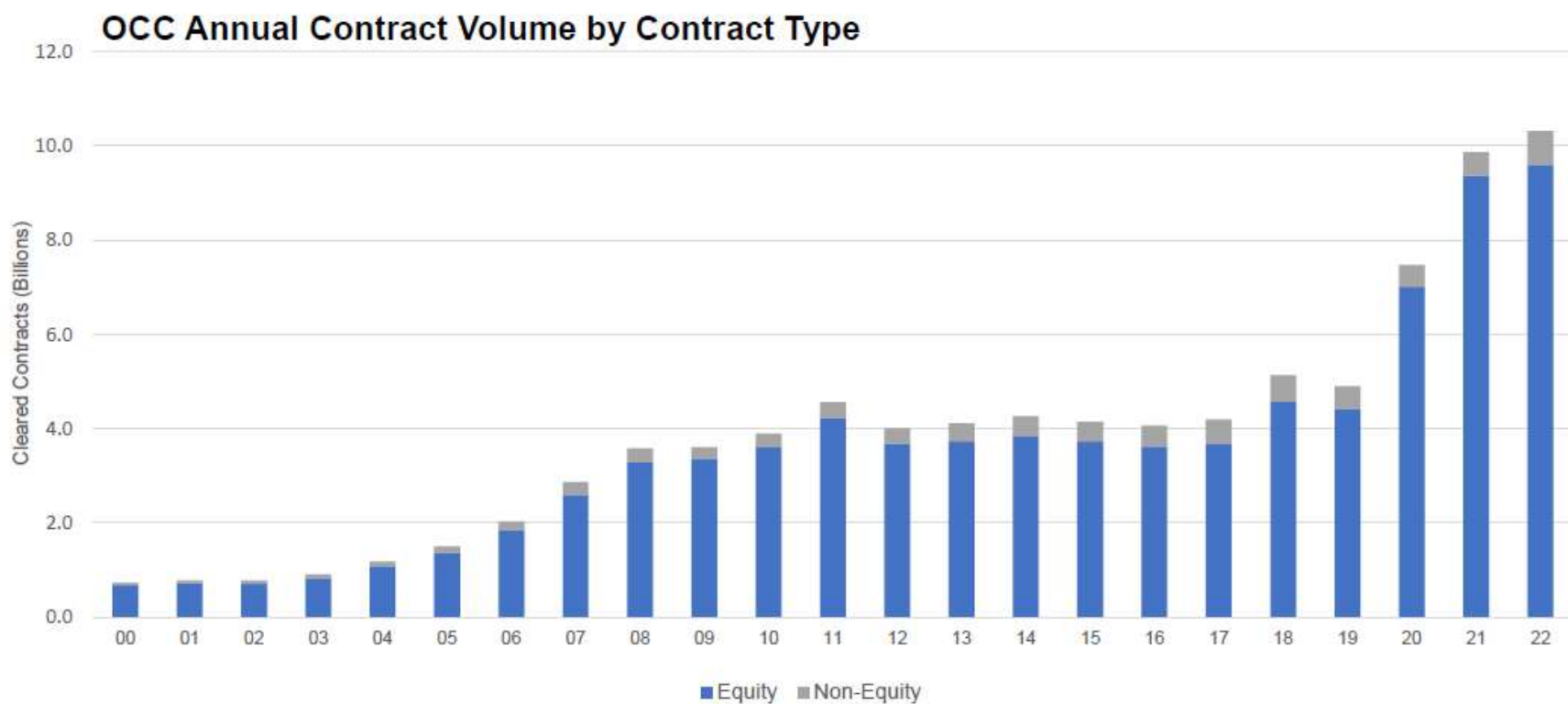
Options are traded through your **brokerage firm** at **Exchanges**. Trade transactions are cleared through the Options Clearing Corporation (**OCC**).

- Markets are fragmented, anonymous and 90% electronic.
- Every trade has a buyer and a seller, but one initiator.
- There is information in every quote and every trade.

Options Clearing Corporation (OCC)

- Established in 1973
- Owned by the major exchanges (*i.e.* CBOE, AMEX, PHLX, PSE)
- Regulated by the SEC
- Main role: to act as a performance guarantor for all options

Annual Options Volume 2000-2022



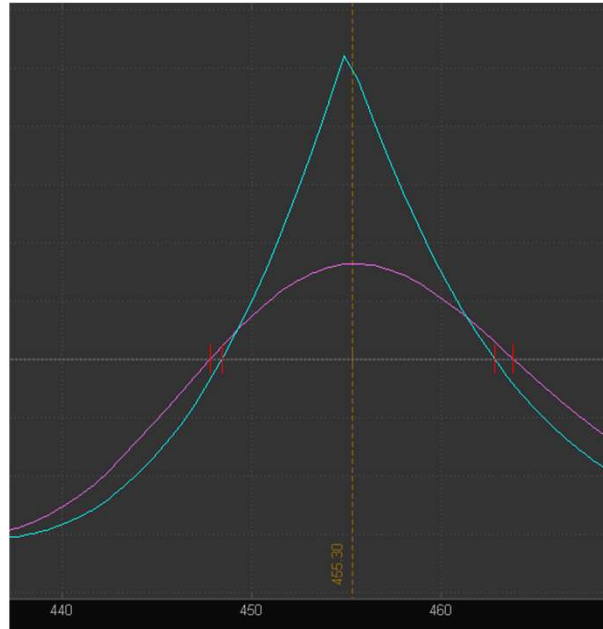
Calendar Spread

1. Uses options with **different** expirations but **same** strike.
2. Sell the near-term option, buy the longer-term option.
 - short strike in front month
 - long strike in back month
3. Both options are the same type (call or put).
4. Best used in a sideways market with low volatility.
5. Profit from time decay and increased implied volatility.

Trade Setup Parameters

- Strike (usually ATM)
- Front Month Expiration
- Calendar Width: time between expirations

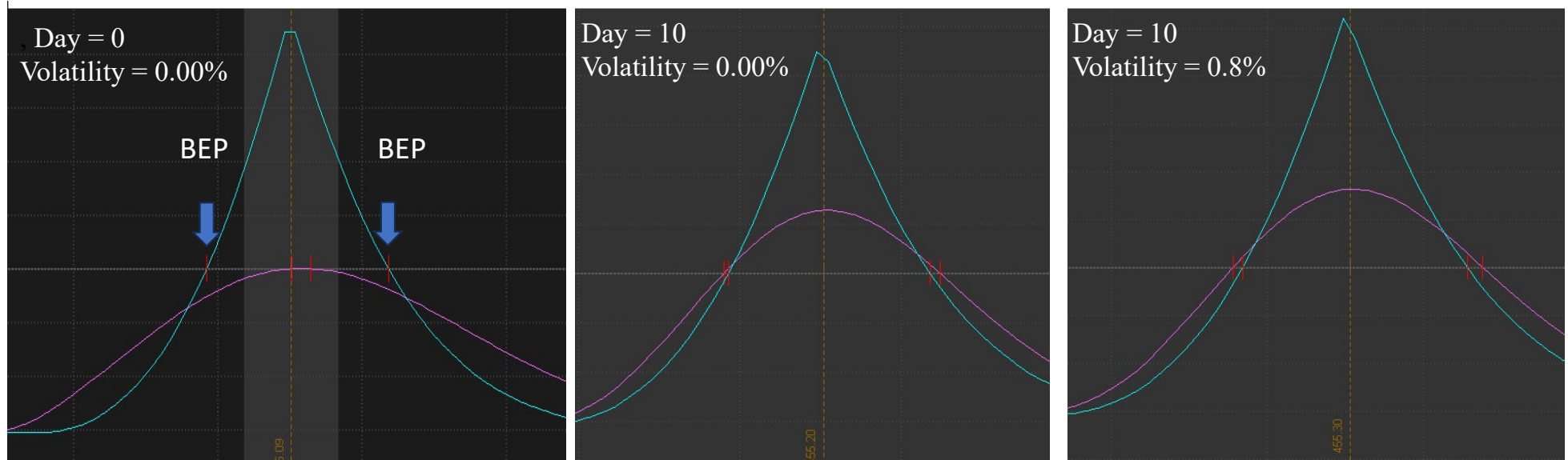
SPY Put Calendar (at Day 10 with volatility increase)



Theta: 14.09
 Date: 7-29-23, Day = 10
 Volatility adjustment = 0.80%
 P/L = \$81.62 (170X)

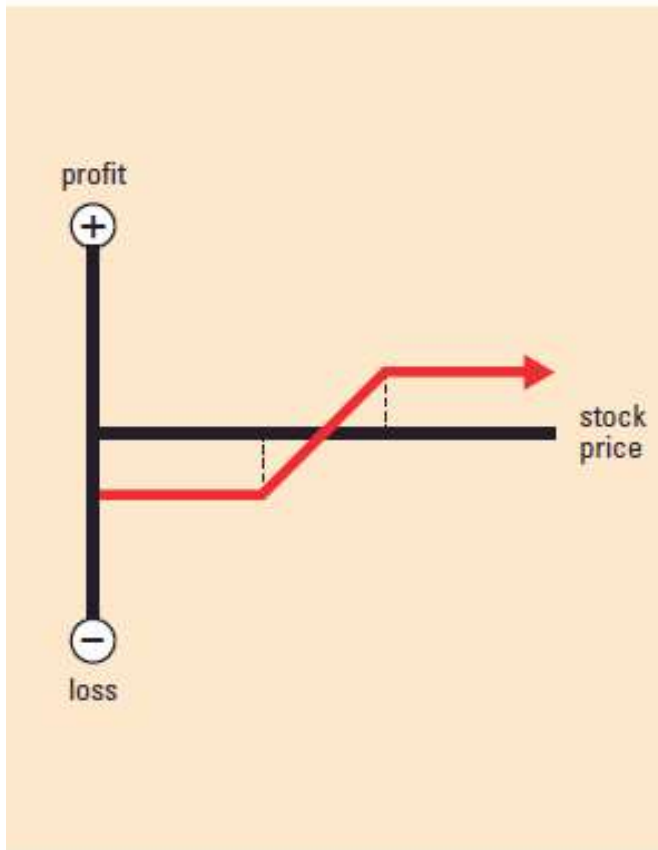
Price Slices													
Stk Price	Offset	Delta	Gamma	Theta	Vega	P/L Open	P/L Day	BP Effect					
455.31	\$0	.43	-3.19	14.09	22.04	\$81.62	\$81.62	\$0.00					
Positions and Simulated Trades													
Model: Bjerkund-Stensland Interest: 5.00% Date: 07/29/2023													
SPY	STK	Side	Qty	Symbol	Exp	Strike	Type	Price	Yield	Vol	Vol Adj	Delta	BP Effect
✓	SPY	BUY	+1	SPY	18 AUG 23	455	PUT	DEBIT	-0.12%	12.43%	+0.80%	.62	(\$5,432.72)
✓	SPY	SELL	-1	SPY	2 AUG 23 (Week)	455	PUT	1.54	0.18%	12.20%	+0.80%	.62	(\$5,432.72)
✓	SPY	BUY	+1	SPY	18 AUG 23	455	PUT	1.54	-0.12%	12.43%	+0.80%	.62	(\$5,432.72)

Calendar spreads profit from: 1) time decay and 2) increased volatility
if the underlying price remains between the BEPs.



Basic Guidelines for Calendar Spreads

1. Avoid trading through earnings and ExDiv date (for stocks).
2. Buy the spread ATM.
3. The short options (front month) should expire in 7 to 40 days.
4. The long options (back month) should expire 7 to 14 days later.
5. Use the expiration or P/L graph throughout the trade.
6. Always have an exit plan and a profit target. Use a mental or real stop loss.
7. Adjust the trade at or near the break-even point:
 - a) Open a second calendar spread at the current price, converting trade to a double calendar.
 - b) Close the trade.

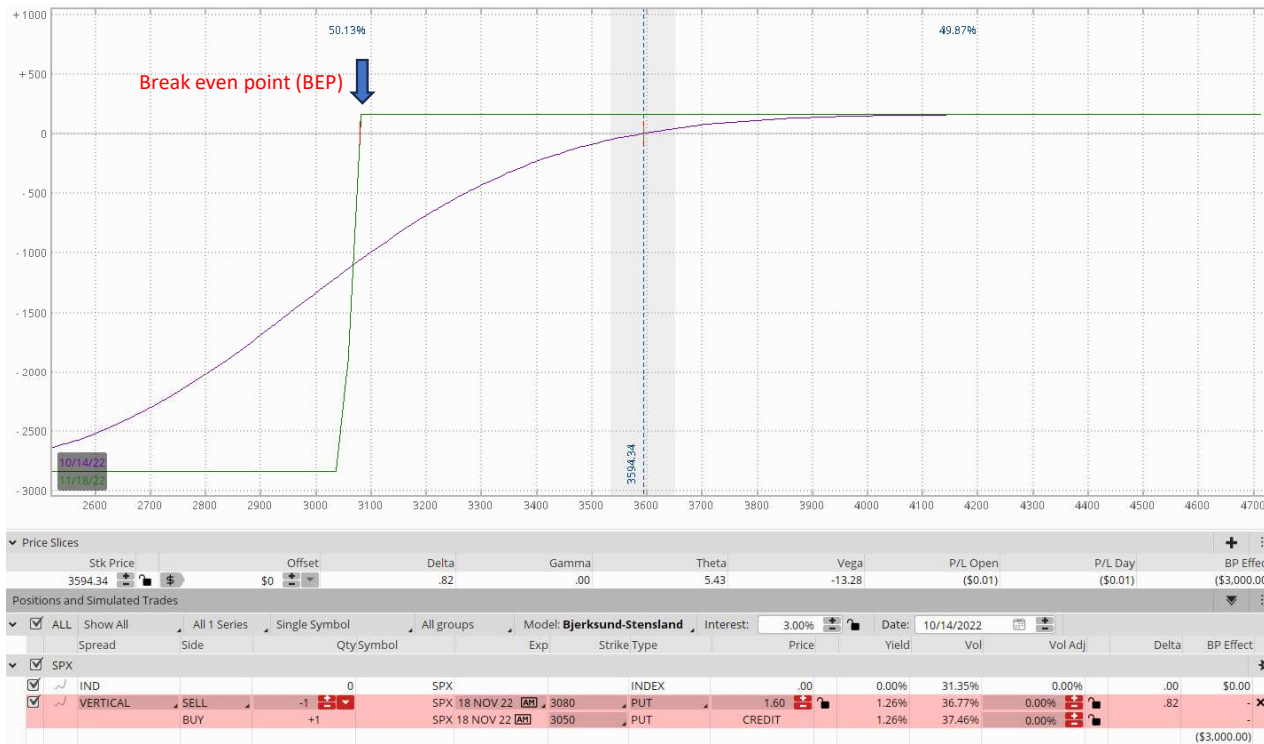


Put Credit Spread

- Sell put and buy another put at lower strike with same expiration
- Market sentiment: neutral to bullish
- Limited risk and limited reward
- Time decay and stock price increase helps position

Put Credit Spread

price-short strike = pts to BEP
 3594-3080 = 514 pts to BEP



High Probability Put Credit Spreads in SPX

Sell a put and buy another put at lower strike with same expiration

Sell far OTM puts, (ex. 4Δ)

Buy puts 40-50 points lower

Start trade after a market sell-off

Pay attention to the “Expected Move” and ...

consider the distance between the current price and the short strike:
how many points until the short is ITM (i.e. at the BEP)?

SPX 6 Month Daily Chart



SPX Daily Price Chart (11-15-23) and Put Credit Spread Durations



SPX Option Chain (on 11-15-23)

SPX S&P 500 INDEX 4502.88 +7.18 (+0.16%) B: 4474.23 A: 4516.88											
Underlying											Expected Move
Last X	Net Chng	Bid X	Ask X	Size	Volume	Open	High	Low	Shares	Beta	
4502.88	+7.18	4474.23	4516.68	N/A	N/A	4505.30	4521.17	4495.31	0	1.0	
Last Size	Yield	PE	Div	Div.Freq	Ex.Div.Date	52High	52Low	Shares			
0	N/A	N/A	N/A	-	N/A	4607.07	3764.49	0			
Trade Grid											
Option Chain Filter: Off Spread: Single Layout: Open Interest, Volume, Impl Vol, Theta,...											
Month	Day	Open Int	Volume	Impl Vol	Theta	Expected Move					
>	15 NOV 23	(0)	100	(Weekly)		8.39% (±2.277)					
>	16 NOV 23	(1)	100	(Weekly)		14.65% (±25.358)					
>	17 NOV 23	(1)	100	(Weekly)		12.51% (±29.44)					
>	17 NOV 23	(2)	100	(Weekly)		14.47% (±36.985)					
>	20 NOV 23	(5)	100	(Weekly)		10.95% (±45.338)					
>	21 NOV 23	(6)	100	(Weekly)		11.34% (±51.57)					
>	22 NOV 23	(7)	100	(Weekly)		11.70% (±57.578)					
>	24 NOV 23	(9)	100	(Weekly)		11.31% (±63.269)					
>	27 NOV 23	(12)	100	(Weekly)		11.16% (±72.246)					
>	28 NOV 23	(13)	100	(Weekly)		11.59% (±78.133)					
>	29 NOV 23	(14)	100	(Weekly)		11.98% (±83.849)					
>	30 NOV 23	(15)	100	(Weekly)		12.31% (±89.218)					
>	1 DEC 23	(16)	100	(Weekly)		12.59% (±94.272)					
>	4 DEC 23	(19)	100	(Weekly)		12.27% (±100.199)					
>	5 DEC 23	(20)	100	(Weekly)		12.52% (±104.92)					
>	6 DEC 23	(21)	100	(Weekly)		12.75% (±109.509)					
>	7 DEC 23	(22)	100	(Weekly)		12.94% (±113.778)					
>	8 DEC 23	(23)	100	(Weekly)		13.31% (±119.684)					
>	11 DEC 23	(26)	100	(Weekly)		13.04% (±124.721)					
>	12 DEC 23	(27)	100	(Weekly)		13.36% (±130.235)					
>	13 DEC 23	(28)	100	(Weekly)		13.79% (±136.914)					
>	14 DEC 23	(29)	100	(Weekly)		13.94% (±140.87)					
>	15 DEC 23	(29)	100	(Weekly)		13.70% (±140.158)					
>	15 DEC 23	(30)	100	(Weekly)		14.07% (±144.631)					
>	18 DEC 23	(33)	100	(Weekly)		13.76% (±148.387)					
>	19 DEC 23	(34)	100	(Weekly)		13.98% (±153.043)					
>	20 DEC 23	(35)	100	(Weekly)		14.10% (±156.624)					
>	21 DEC 23	(36)	100	(Weekly)		14.18% (±159.761)					

SPX Weekly Option Chain 30 DTE (on 11-15-23)

Strikes: ALL		PUTS								
Exp	Strike	Bid X	Ask X	Open Int	Volume	Impl Vol	Theta	Delta		
									14.22% (±146.125)	
15 DEC 23	4045	4.00 C	4.10 C	203	N/A	21.97%	-34	-04		
15 DEC 23	4050	4.00 C	4.20 C	1,744	N/A	21.82%	-34	-04		
15 DEC 23	4055	4.10 C	4.20 C	232	N/A	21.67%	-34	-04		
15 DEC 23	4060	4.10 C	4.30 C	596	N/A	21.51%	-35	-04		
15 DEC 23	4065	4.20 C	4.40 C	220	N/A	21.41%	-35	-04		
15 DEC 23	4070	4.30 C	4.50 C	565	N/A	21.29%	-36	-04		
15 DEC 23	4075	4.40 C	4.50 C	884	N/A	21.14%	-36	-04		
15 DEC 23	4080	4.40 C	4.60 C	2,082	N/A	20.98%	-36	-04		
15 DEC 23	4085	4.50 C	4.70 C	461	N/A	20.86%	-37	-04		
15 DEC 23	4090	4.60 C	4.80 C	444	N/A	20.74%	-37	-04		
15 DEC 23	4095	4.70 C	4.90 C	229	N/A	20.62%	-38	-04		
15 DEC 23	4100	4.80 C	5.00 C	3,685	N/A	20.50%	-38	-04		
15 DEC 23	4105	4.90 C	5.10 C	346	N/A	20.37%	-38	-05		
15 DEC 23	4110	5.00 C	5.20 C	428	N/A	20.25%	-39	-05		
15 DEC 23	4115	5.10 C	5.30 C	193	N/A	20.12%	-39	-05		
15 DEC 23	4120	5.20 C	5.40 C	536	N/A	19.99%	-40	-05		
15 DEC 23	4125	5.30 C	5.60 C	4,735	N/A	19.89%	-40	-05		
15 DEC 23	4130	5.40 C	5.70 C	910	N/A	19.76%	-41	-05		
15 DEC 23	4135	5.50 C	5.80 C	989	N/A	19.62%	-41	-05		
15 DEC 23	4140	5.60 C	5.90 C	395	N/A	19.48%	-42	-05		
15 DEC 23	4145	5.70 C	6.00 C	395	N/A	19.34%	-42	-05		
15 DEC 23	4150	5.90 C	6.20 C	2,089	N/A	19.26%	-43	-06		
15 DEC 23	4155	6.00 C	6.30 C	305	N/A	19.11%	-43	-06		
15 DEC 23	4160	6.10 C	6.40 C	244	N/A	18.97%	-44	-06		
15 DEC 23	4165	6.20 C	6.60 C	152	N/A	18.85%	-44	-06		
15 DEC 23	4170	6.40 C	6.70 C	354	N/A	18.73%	-45	-06		
15 DEC 23	4175	6.50 C	6.90 C	1,184	N/A	18.61%	-45	-06		

SPX Monthly Chain 29 DTE AM settled (on 11-15-23)

Strikes: ALL		PUTS							
Exp	Strike	Bid X	Ask X	Open Int	Volume	Impl Vol	Theta	Delta	
									14.11% (±144.301)
15 DEC 23	4045	3.80 C	4.00 C	3,322	N/A	21.92%	-33	-03	
15 DEC 23	4050	3.90 C	4.10 C	33,620	N/A	21.82%	-34	-04	
15 DEC 23	4055	3.90 C	4.20 C	786	N/A	21.67%	-34	-04	
15 DEC 23	4060	4.00 C	4.20 C	1,175	N/A	21.51%	-34	-04	
15 DEC 23	4065	4.10 C	4.30 C	1,175	N/A	21.41%	-35	-04	
15 DEC 23	4070	4.20 C	4.40 C	3,317	N/A	21.30%	-35	-04	
15 DEC 23	4075	4.20 C	4.40 C	12,397	N/A	21.09%	-35	-04	
15 DEC 23	4080	4.30 C	4.50 C	1,776	N/A	20.98%	-36	-04	
15 DEC 23	4085	4.40 C	4.60 C	1,439	N/A	20.87%	-36	-04	
15 DEC 23	4090	4.50 C	4.70 C	2,510	N/A	20.75%	-37	-04	
15 DEC 23	4095	4.50 C	4.80 C	676	N/A	20.59%	-37	-04	
15 DEC 23	4100	4.60 C	4.90 C	69,552	N/A	20.46%	-37	-04	
15 DEC 23	4105	4.70 C	5.00 C	553	N/A	20.34%	-38	-04	
15 DEC 23	4110	4.80 C	5.10 C	5,959	N/A	20.22%	-38	-05	
15 DEC 23	4115	4.90 C	5.20 C	354	N/A	20.09%	-39	-05	
15 DEC 23	4120	5.00 C	5.30 C	1,612	N/A	19.96%	-39	-05	
15 DEC 23	4125	5.10 C	5.40 C	11,974	N/A	19.83%	-40	-05	
15 DEC 23	4130	5.20 C	5.50 C	5,850	N/A	19.69%	-40	-05	
15 DEC 23	4135	5.30 C	5.60 C	2,440	N/A	19.56%	-41	-05	
15 DEC 23	4140	5.40 C	5.70 C	4,346	N/A	19.42%	-41	-05	
15 DEC 23	4145	5.60 C	5.80 C	1,957	N/A	19.31%	-42	-05	
15 DEC 23	4150	5.70 C	5.90 C	36,476	N/A	19.17%	-42	-05	
15 DEC 23	4155	5.80 C	6.10 C	3,697	N/A	19.06%	-43	-06	
15 DEC 23	4160	6.00 C	6.20 C	7,343	N/A	18.95%	-43	-06	
15 DEC 23	4165	6.10 C	6.30 C	5,337	N/A	18.80%	-44	-06	
15 DEC 23	4170	6.20 C	6.50 C	3,410	N/A	18.68%	-44	-06	
15 DEC 23	4175	6.40 C	6.60 C	12,329	N/A	18.56%	-45	-06	

30-day Weekly vs 29-day Monthly Open Interest SPX @ 4502 on 11-15-23

Strike	Weekly	Monthly (AM settled)	Delta
	Open.Int	Open.Int	
4045	203	3,322	-03
4050	1,744	33,620	-04
4055	232	786	-04
4060	596	1,175	-04
4065	220	1,175	-04
4070	565	3,317	-04
4075	884	12,397	-04
4080	2,082	1,776	-04
4085	461	1,439	-04
4090	444	2,510	-04
4095	229	676	-04
4100	3,685	69,552	-04
4105	346	553	-04
4110	428	5,959	-05
4115	193	354	-05
4120	536	1,612	-05
4125	4,735	11,974	-05
4130	910	5,850	-05
4135	989	2,440	-05
4140	395	4,346	-05
4145	395	1,957	-05
4150	2,089	36,476	-05
4155	305	3,697	-06
4160	244	7,343	-06
4165	152	5,337	-06
4170	354	3,410	-06
4175	1,184	12,329	-06

Start: SPX 17 NOV PCS on 10-20-23

28 DTE, SPX down 53.84 (-1.26%)



Exp	Strike	Bid X	Ask X	Open Int	Volume	Impl Vol	Theta	Delta	
									21.83% (±204.202)
17 NOV 23	3575	5.60 C	5.70 C	20,658	39	34.72%	-52	-03	
17 NOV 23	3580	5.60 C	5.80 C	321	180	34.54%	-52	-03	
17 NOV 23	3590	5.80 C	5.90 C	363	267	34.23%	-53	-04	
17 NOV 23	3600	6.00 C	6.10 C	1,877	383	33.97%	-54	-04	
17 NOV 23	3610	6.10 C	6.30 C	201	145	33.65%	-55	-04	POS
17 NOV 23	3620	6.30 C	6.50 C	223	N/A	33.38%	-56	-04	
17 NOV 23	3625	6.40 C	6.60 C	398	129	33.24%	-56	-04	
17 NOV 23	3630	6.50 C	6.70 C	282	137	33.10%	-57	-04	
17 NOV 23	3640	6.70 C	6.90 C	184	48	32.81%	-58	-04	
17 NOV 23	3650	6.90 C	7.10 C	3,149	331	32.51%	-59	-04	POS
17 NOV 23	3660	7.10 C	7.30 C	206	138	32.21%	-60	-04	
17 NOV 23	3670	7.40 C	7.50 C	301	89	31.94%	-61	-05	
17 NOV 23	3675	7.50 C	7.70 C	301	223	31.83%	-62	-05	
17 NOV 23	3680	7.60 C	7.80 C	317	71	31.67%	-63	-05	
17 NOV 23	3690	7.80 C	8.00 C	370	289	31.35%	-63	-05	
17 NOV 23	3700	8.10 C	8.30 C	1,811	822	31.10%	-65	-05	
17 NOV 23	3710	8.40 C	8.60 C	193	114	30.84%	-66	-05	
17 NOV 23	3720	8.60 C	8.90 C	305	99	30.54%	-67	-06	
17 NOV 23	3725	8.80 C	9.00 C	725	155	30.40%	-68	-06	
17 NOV 23	3730	8.90 C	9.20 C	370	35	30.26%	-69	-06	
17 NOV 23	3735	9.10 C	9.30 C	154	91	30.12%	-69	-06	
17 NOV 23	3740	9.20 C	9.50 C	224	92	29.98%	-70	-06	
17 NOV 23	3745	9.40 C	9.70 C	255	149	29.87%	-71	-06	

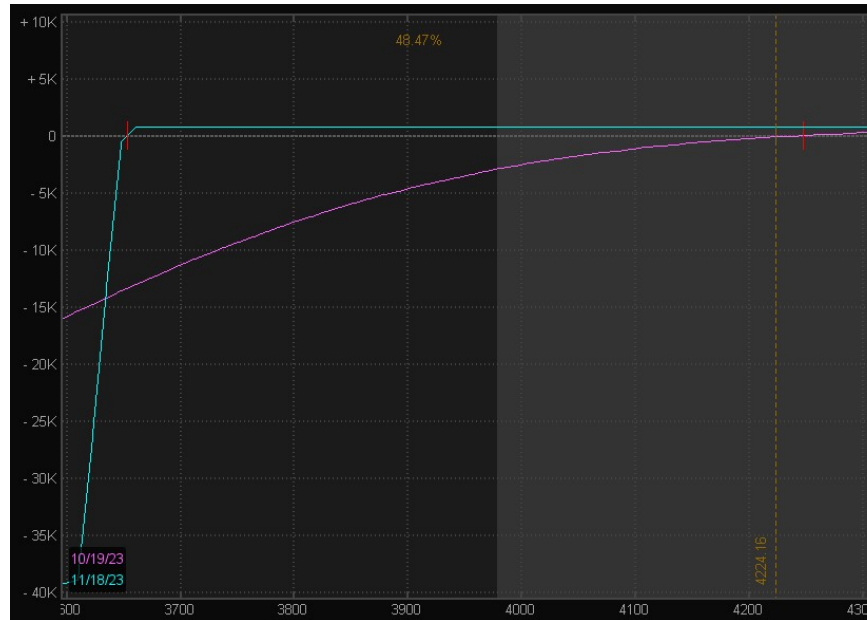
Nov 17 SPX PCS at Open

SPX @4224 (-53.84)
 credit \$726.40
 Short put @ 4Δ

Expected move 205pts

Price-Short Strick = points to BEP
 $4224 - 3650 = 574$

Points to BEP-Expected move=
 $574 - 205 = 369\text{pts} > \text{expected move}$



Price Slices												
Stk Price	Offset	Delta	Gamma	Theta	Vega	P/L Open	P/L Day	BP Effect				
4224.16	\$0	5.84	-03	40.82	-119.60	(\$130.69)	(\$130.69)	(\$17,605.86)				
Positions and Simulated Trades												
ALL	Show All	All 1 Series	Single Symbol	All groups	Model: Bjerkund-Stensland	Interest: 5.25%	Date: 10/19/2023					
Spread	Side	Qty/Symbol	Exp	Strike/Type	Price	Yield	Vol	Vol Adj	Delta	BP Effect		
SPX												
IND		0	SPX	INDEX	.00	0.00%	21.69%	0.00%	.00	\$0.00		
OPT	LONG	+10	SPX 17 NOV 23 (W...	3610 PUT	6.20	1.59%	33.45%	0.00%	-38.19	\$138,562.31		
OPT	SHORT	-10	SPX 17 NOV 23 (W...	3650 PUT	6.95	1.59%	32.30%	0.00%	43.50	(\$156,168....)	(\$17,605.86)	

Close: 17 Nov SPX PCS, 11 Days in Trade

SPX @4182 (+15.60,
+37%)

Credit \$726.40

Cost to close \$272.62

Profit \$453.78

Short put @ 2Δ



Strikes: ALL		PUTS							
Exp	Strike	Bid X	Ask X	Open.Int	Volume	Impl Vol	Theta	Delta	
									18.94% (±136.966)
17 NOV 23	3600	1.55 C	1.65 C	2,190	11	32.93%	-30	-01	
17 NOV 23	3610	1.65 C	1.70 C	237	10	32.63%	-31	-02	
17 NOV 23	3620	1.70 C	1.75 C	354	4	32.24%	-32	-02	
17 NOV 23	3625	1.70 C	1.80 C	500	N/A	32.05%	-32	-02	
17 NOV 23	3630	1.75 C	1.80 C	460	N/A	31.85%	-32	-02	
17 NOV 23	3640	1.80 C	1.85 C	188	4	31.46%	-33	-02	
17 NOV 23	3645	1.85 C	1.90 C	61	N/A	31.32%	-34	-02	
17 NOV 23	3650	1.85 C	1.95 C	3,524	14	31.12%	-34	-02	
17 NOV 23	3655	1.90 C	1.95 C	104	1	30.92%	-34	-02	
17 NOV 23	3660	1.95 C	2.00 C	321	N/A	30.77%	-35	-02	
17 NOV 23	3665	1.95 C	2.05 C	121	11	30.57%	-35	-02	

Start: SPX 24 NOV PCS on 10-26-23

29 DTE, SPX down 51.27



Strikes: ALL		PUTS						
Exp	Strike	Bid X	Ask X	Open Int	Volume	Impl Vol	Theta	Delta
								21.65% (±202.274)
24 NOV 23	3000	1.30 C	1.00 C	442	N/A	45.01%	-20	-0.1
24 NOV 23	3100	1.90 C	2.00 C	329	91	45.92%	-24	-0.1
24 NOV 23	3200	2.35 C	2.50 C	447	26	42.76%	-28	-0.1
24 NOV 23	3250	2.65 C	2.75 C	247	N/A	41.16%	-30	-0.2
24 NOV 23	3300	2.95 C	3.10 C	363	40	39.58%	-32	-0.2
24 NOV 23	3350	3.30 C	3.50 C	238	22	38.02%	-35	-0.2
24 NOV 23	3400	3.70 C	3.90 C	228	6	36.41%	-38	-0.2
24 NOV 23	3450	4.30 C	4.40 C	1,330	N/A	34.92%	-41	-0.3
24 NOV 23	3500	4.90 C	5.10 C	3,738	18	33.43%	-45	-0.3
24 NOV 23	3550	5.70 C	5.90 C	20,865	13	31.97%	-49	-0.4
24 NOV 23	3600	6.70 C	6.90 C	20,961	3	30.55%	-54	-0.4
24 NOV 23	3625	7.40 C	7.60 C	0	59	29.94%	-58	-0.5
24 NOV 23	3650	8.10 C	8.30 C	545	16	29.27%	-61	-0.5
24 NOV 23	3675	8.90 C	9.20 C	13	N/A	28.65%	-65	-0.6
24 NOV 23	3690	9.50 C	9.70 C	0	N/A	28.28%	-67	-0.6
24 NOV 23	3700	9.90 C	10.10 C	1,415	155	28.03%	-68	-0.7
24 NOV 23	3710	10.30 C	10.60 C	0	1	27.81%	-70	-0.7
24 NOV 23	3720	10.80 C	11.00 C	11	4	27.57%	-72	-0.7
24 NOV 23	3725	11.00 C	11.30 C	49	359	27.47%	-73	-0.8
24 NOV 23	3730	11.20 C	11.50 C	2	39	27.32%	-74	-0.8
24 NOV 23	3740	11.80 C	12.00 C	8	42	27.12%	-76	-0.8
24 NOV 23	3750	12.30 C	12.50 C	462	327	26.87%	-77	-0.8

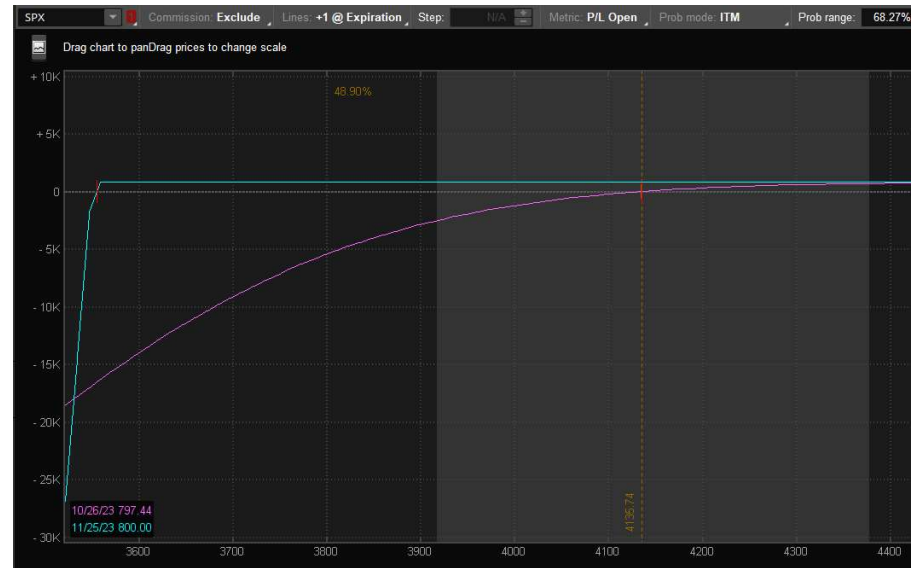
Nov 24 SPX PCS at Open

SPX @4135 (-51.27)
 credit \$776.4
 Short put @ 4Δ

Expected move 202pts

Price - Short Strick = points to BEP
 4135-3550 = 585

Points to BEP - Expected move =
 585-202 = 383pts > expected move



Price Slices											+	☰
Stk Price	Offset	Delta	Gamma	Theta	Vega	P/L Open	P/L Day	BP Effect				
4134.36	\$0	5.86	-0.04	43.84	-124.24	\$0.07	\$0.07	(\$20,201.75)				
Positions and Simulated Trades												
ALL	Show All	All 2 Series	Single Symbol	All groups	Model: Bjerkund-Stensland	Interest: 5.25%	Date: 10/26/2023					
Spread	Side	Qty	Symbol	Exp	Strike	Type	Price	Yield	Vol	Vol Adj	Delta	BP Effect
SPX												
<input type="checkbox"/>	<input checked="" type="checkbox"/>	IND	LONG	0	SPX	INDEX	.00	0.00%	22.11%	0.00%	.00	-
<input type="checkbox"/>	<input checked="" type="checkbox"/>	OPT	LONG	+10	SPX 17 NOV 23 (W...	3610 PUT	6.20	2.00%	32.44%	0.00%	-38.56	-
<input type="checkbox"/>	<input checked="" type="checkbox"/>	OPT	SHORT	-10	SPX 17 NOV 23 (W...	3650 PUT	6.95	2.00%	31.14%	0.00%	45.38	-
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	OPT	LONG	+10	SPX 24 NOV 23 (W...	3500 PUT	5.00	1.68%	33.24%	0.00%	-31.71	\$119,359.97
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	OPT	SHORT	-10	SPX 24 NOV 23 (W...	3550 PUT	5.80	1.68%	31.82%	0.00%	38.02	(\$139,561...)
											(\$20,201.75)	

Close: 24 Nov SPX PCS, 11 Days in Trade

Credit \$776.4

Cost to close \$121.80

Profit \$654.60

Total profit \$654.60 + 453.78 = \$1,108.38



Underlying		Last X	Net Chng	Bid X	Ask X	Size	Volume	Open	High	Low									
S&P 500 INDEX		4349.19	-9.15	4348.15	4349.98	N/A	N/A	4364.27	4372.21	4347.53									
Option Chain		Filter: Off	Spread: Single	Layout: Open Interest, Volume, Impl Vol, Theta,...															
CALLS										PUTS									
Open.Int	Volume	Impl Vol	Theta	Delta	Bid X	Ask X	Exp	Strike	Bid X	Ask X	Open.Int	Volume	Impl Vol	Theta	Delta				
24 NOV 23 (18) 100 (Weeklys) 14.73% (±113.934)																			
0	N/A	--	-47	1.00	1051.10	1057.10	24 NOV 23	3300	.40 C	.50 C	454	1	46.74%	-11	.00				
0	N/A	--	-48	1.00	1001.30	1007.30	24 NOV 23	3350	.50 C	.55 C	498	N/A	45.16%	-12	.00				
10	N/A	--	-49	1.00	951.50	957.50	24 NOV 23	3400	.55 C	.60 C	4,173	1	43.28%	-13	.00				
0	N/A	--	-49	1.00	901.70	907.70	24 NOV 23	3450	.60 C	.70 C	1,358	N/A	41.54%	-15	.00				
0	N/A	--	-50	1.00	851.90	857.90	24 NOV 23	3500	.70 C	.75 C	3,746	60	39.73%	-16	-.01				
0	N/A	--	-51	1.00	802.90	808.90	24 NOV 23	3550	.75 C	.85 C	27,923	10	37.86%	-17	-.01				
0	N/A	--	-51	1.00	778.00	784.00	24 NOV 23	3575	.80 C	.90 C	52	N/A	36.97%	-18	-.01				
1	N/A	--	-52	1.00	752.40	758.30	24 NOV 23	3600	.85 C	.95 C	26,174	51	36.06%	-19	-.01				
50	N/A	--	-52	1.00	727.60	733.60	24 NOV 23	3625	.90 C	1.00 C	199	10	35.14%	-19	-.01				

THE END

Written and Directed by Bruce W. Ennis, PhD

Produced by AAI San Diego

Assistant Producer James Hoffman, USMC