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Interactive Brokers Webcast

Strategies with Weeklys

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Strategies with Weeklys

Outline

- **Markets with Weeklys**
- **The Greeks**
- **Stock Replacement Trades**
- **Index Option Trading**
- **Questions / Contact**

Equity Weeklys

Overview

- ▶ **Short dated options on stocks were introduced in May 2010 on just 5 stocks**
- ▶ **There are now 370 individual stocks with Weeklys available for trading**
- ▶ **The contract specifications for Equity Weeklys are the same as standard (3rd Friday) options**
- ▶ **The only difference is they expire on non third Fridays of the month**

Equity Weeklys

Available Expirations

AAPL as of August 2, 2017

8/4/2017	12/15/2017
8/11/2017	1/19/2018
8/18/2017	2/16/2018
8/25/2017	4/20/2018
9/1/2017	6/15/2018
9/8/2017	9/21/2018
10/20/2017	1/18/2019
11/17/2017	

Weeklys in Blue

Source: LiveVol Pro

Exchange Traded Products

Overview

- **Weeklys on exchange traded funds and exchange traded notes were introduced shortly after those on stocks**
- **There are now 76 ETPs that have short dated options available for trading**
- **The contract specifications for these Weeklys is exactly the same as the standard contracts**
- **Recently Wednesday Weeklys were introduced on SPY**

Exchange Traded Products

Available Expirations

IWM as of August 2, 2017

8/4/2017	12/29/2017
8/11/2017	1/18/2018
8/18/2017	2/16/2018
8/25/2017	3/16/2018
9/1/2017	3/29/2018
9/8/2017	5/18/2018
9/15/2017	6/15/2018
9/29/2017	6/29/2018
10/20/2017	9/21/2018
11/17/2017	1/18/2019
12/15/2017	

Weeklys in Blue

Quarter End in Red

Source: LiveVol Pro

Exchange Traded Products

Available Expirations

SPY as of August 2, 2017

8/2/2017	9/8/2017	6/15/2018
8/4/2017	9/15/2017	6/29/2018
8/9/2017	9/29/2017	7/20/2018
8/11/2017	10/20/2017	9/21/2018
8/16/2017	11/17/2017	12/21/2018
8/18/2017	12/15/2017	1/18/2019
8/25/2017	12/29/2017	3/15/2019
8/30/2017	1/19/2018	6/21/2019
9/1/2017	3/16/2018	12/20/2019
9/6/2017	3/29/2018	

Weeklys in Blue / Month End in Purple

Wednesday in Orange / Standard in Black

Source: LiveVol Pro

Indexes

Overview

- **The first Weeklys were introduced in 2005 on the S&P 500 (SPX) Index**
- **They were not heavily traded until Equity Weeklys came along in 2010**
- **There are 7 indexes with Weeklys available – two (RUT and SPX) dominate the volume in this area**
- **In addition to Friday expirations, SPX has Monday and Wednesday series available for trading**

Indexes

Available Expirations

RUT as of August 2, 2017

8/4/2017	9/29/2017	1/31/2018
8/11/2017	10/20/2017	3/16/2018
8/18/2017	10/31/2017	3/29/2018
8/25/2017	11/17/2017	6/15/2018
8/31/2017	11/30/2017	6/29/2018
9/1/2017	12/15/2017	12/21/2018
9/8/2017	12/30/2017	1/21/2019
9/15/2017	1/19/2018	12/20/2019

Weeklys in Blue

Month End* in Red

Standard Expirations are AM Settled

Source: LiveVol Pro

Indexes

Available Expirations

SPX as of August 9, 2017

8/9/2017	8/30/2017	9/22/2017	1/19/2018
8/11/2017	8/31/2017	9/29/2017	1/31/2018
8/14/2017	9/1/2017	10/6/2017	3/16/2018
8/16/2017	9/5/2017	10/20/2017	3/29/2018
8/18/2017	9/6/2017	10/31/2017	6/15/2018
8/21/2017	9/8/2017	11/17/2017	6/29/2018
8/23/2017	9/11/2017	11/30/2017	12/21/2018
8/25/2017	9/13/2017	12/15/2017	6/21/2019
8/28/2017	9/15/2017	12/29/2017	12/20/2019

Weeklys in Blue

Month End* in Red

Monday Weeklys in Purple

Wednesday Weeklys in Orange

Source: LiveVol Pro

Why Trade Weeklys

Some Ideas

- **Trading specific events – earnings for equities – economic numbers for ETP, Index, or VIX**
- **Time decay – ATM time decay accelerates when expiration approaches**
- **Lack of time value – ITM options often have very little time value as expiration approaches**

Greeks Near Expiration

Example

AAPL @ 114.00 5-Day Options

IV	Delta	Gamma	Theta	Vega	Price	Strike	Price	IV	Delta	Gamma	Theta	Vega
19.28%	0.96	0.03	-0.02	0.01	5.13	109	0.08	20.62%	-0.05	0.03	-0.03	0.02
17.47%	0.94	0.05	-0.03	0.02	4.15	110	0.12	19.12%	-0.08	0.05	-0.03	0.02
16.77%	0.88	0.07	-0.04	0.03	3.23	111	0.19	17.89%	-0.13	0.08	-0.04	0.03
16.93%	0.79	0.11	-0.06	0.05	2.40	112	0.33	16.85%	-0.21	0.11	-0.06	0.05
16.03%	0.67	0.14	-0.07	0.06	1.63	113	0.57	16.22%	-0.33	0.14	-0.07	0.06
15.71%	0.52	0.16	-0.07	0.06	1.03	114	0.95	15.63%	-0.48	0.16	-0.07	0.06
15.67%	0.36	0.15	-0.07	0.06	0.60	115	1.53	15.76%	-0.64	0.15	-0.07	0.06
15.79%	0.22	0.12	-0.05	0.05	0.32	116	2.26	16.00%	-0.77	0.12	-0.05	0.05
16.14%	0.13	0.08	-0.04	0.03	0.17	117	3.10	16.28%	-0.87	0.08	-0.04	0.04
16.70%	0.07	0.05	-0.03	0.02	0.09	118	4.03	17.10%	-0.92	0.05	-0.03	0.02
17.43%	0.04	0.03	-0.02	0.01	0.05	119	5.00	18.94%	-0.95	0.04	-0.02	0.02

Source: LiveVol Pro

Greeks Near Expiration

Example

Delta

IV	Delta	Gamma	Theta	Vega	Price	Strike	Price	IV	Delta	Gamma	Theta	Vega
19.28%	0.96	0.03	-0.02	0.01	5.13	109	0.08	20.62%	-0.05	0.03	-0.03	0.02
17.47%	0.94	0.05	-0.03	0.02	4.15	110	0.12	19.12%	-0.08	0.05	-0.03	0.02
16.77%	0.88	0.07	-0.04	0.03	3.23	111	0.19	17.89%	-0.13	0.08	-0.04	0.03
16.93%	0.79	0.11	-0.06	0.05	2.40	112	0.33	16.85%	-0.21	0.11	-0.06	0.05
16.03%	0.67	0.14	-0.07	0.06	1.63	113	0.57	16.22%	-0.33	0.14	-0.07	0.06
15.71%	0.52	0.16	-0.07	0.06	1.03	114	0.95	15.63%	-0.48	0.16	-0.07	0.06
15.67%	0.36	0.15	-0.07	0.06	0.60	115	1.53	15.76%	-0.64	0.15	-0.07	0.06
15.79%	0.22	0.12	-0.05	0.05	0.32	116	2.26	16.00%	-0.77	0.12	-0.05	0.05
16.14%	0.13	0.08	-0.04	0.03	0.17	117	3.10	16.28%	-0.87	0.08	-0.04	0.04
16.70%	0.07	0.05	-0.03	0.02	0.09	118	4.03	17.10%	-0.92	0.05	-0.03	0.02
17.43%	0.04	0.03	-0.02	0.01	0.05	119	5.00	18.94%	-0.95	0.04	-0.02	0.02

Deep in the money very close to |1|

Source: LiveVol Pro

Greeks Near Expiration

Delta

- Delta for a 5 point ITM call 0.96
- Delta for a 5 point ITM put -0.95

Each option price was close to 5.00

**Basically you can get 1 for 1
exposure for 5.00 on a 114.00 stock**

Greeks Near Expiration

Example

Gamma

IV	Delta	Gamma	Theta	Vega	Price	Strike	Price	IV	Delta	Gamma	Theta	Vega
19.28%	0.96	0.03	-0.02	0.01	5.13	109	0.08	20.62%	-0.05	0.03	-0.03	0.02
17.47%	0.94	0.05	-0.03	0.02	4.15	110	0.12	19.12%	-0.08	0.05	-0.03	0.02
16.77%	0.88	0.07	-0.04	0.03	3.23	111	0.19	17.89%	-0.13	0.08	-0.04	0.03
16.93%	0.79	0.11	-0.06	0.05	2.40	112	0.33	16.85%	-0.21	0.11	-0.06	0.05
16.03%	0.67	0.14	-0.07	0.06	1.63	113	0.57	16.22%	-0.33	0.14	-0.07	0.06
15.71%	0.52	0.16	-0.07	0.06	1.03	114	0.95	15.63%	-0.48	0.16	-0.07	0.06
15.67%	0.36	0.15	-0.07	0.06	0.60	115	1.53	15.76%	-0.64	0.15	-0.07	0.06
15.79%	0.22	0.12	-0.05	0.05	0.32	116	2.26	16.00%	-0.77	0.12	-0.05	0.05
16.14%	0.13	0.08	-0.04	0.03	0.17	117	3.10	16.28%	-0.87	0.08	-0.04	0.04
16.70%	0.07	0.05	-0.03	0.02	0.09	118	4.03	17.10%	-0.92	0.05	-0.03	0.02
17.43%	0.04	0.03	-0.02	0.01	0.05	119	5.00	18.94%	-0.95	0.04	-0.02	0.02

ATM Gamma Very High

Deltas Will Change Dramatically With Stock Price Change

Source: LiveVol Pro

Time Decay

Example

Theta

IV	Delta	Gamma	Theta	Vega	Price	Strike	Price	IV	Delta	Gamma	Theta	Vega
19.28%	0.96	0.03	-0.02	0.01	5.13	109	0.08	20.62%	-0.05	0.03	-0.03	0.02
17.47%	0.94	0.05	-0.03	0.02	4.15	110	0.12	19.12%	-0.08	0.05	-0.03	0.02
16.77%	0.88	0.07	-0.04	0.03	3.23	111	0.19	17.89%	-0.13	0.08	-0.04	0.03
16.93%	0.79	0.11	-0.06	0.05	2.40	112	0.33	16.85%	-0.21	0.11	-0.06	0.05
16.03%	0.67	0.14	-0.07	0.06	1.63	113	0.57	16.22%	-0.33	0.14	-0.07	0.06
15.71%	0.52	0.16	-0.07	0.06	1.03	114	0.95	15.63%	-0.48	0.16	-0.07	0.06
15.67%	0.36	0.15	-0.07	0.06	0.60	115	1.53	15.76%	-0.64	0.15	-0.07	0.06
15.79%	0.22	0.12	-0.05	0.05	0.32	116	2.26	16.00%	-0.77	0.12	-0.05	0.05
16.14%	0.13	0.08	-0.04	0.03	0.17	117	3.10	16.28%	-0.87	0.08	-0.04	0.04
16.70%	0.07	0.05	-0.03	0.02	0.09	118	4.07	17.10%	-0.92	0.05	-0.03	0.02
17.43%	0.04	0.03	-0.02	0.01	0.05	119	5.05	18.94%	-0.95	0.04	-0.02	0.02

**ITM / OTM Options have very little time value
ATM is another story**

Source: LiveVol Pro

Time Decay

Example

5 Day Option Time Values

Call Price	Time Value	Strike	Put Price	Time Value
5.13	0.13	109	0.08	0.08
4.15	0.14	110	0.12	0.12
3.23	0.23	111	0.19	0.19
2.40	0.40	112	0.33	0.33
1.63	0.63	113	0.57	0.57
1.03	1.03	114	0.95	0.95
0.60	0.60	115	1.53	0.53
0.32	0.32	116	2.26	0.26
0.17	0.17	117	3.10	0.10
0.09	0.09	118	4.07	0.07
0.05	0.05	119	5.05	0.05

5 Trading Day ITM / OTM Time Decay

Source: LiveVol Pro

Time Decay

Example

5 Day Option Time Values

Call Price	Time Value	Strike	Put Price	Time Value
5.13	0.13	109	0.08	0.08
4.15	0.14	110	0.12	0.12
3.23	0.23	111	0.19	0.19
2.40	0.40	112	0.33	0.33
1.63	0.63	113	0.57	0.57
1.03	1.03	114	0.95	0.95
0.60	0.60	115	1.53	0.53
0.32	0.32	116	2.26	0.26
0.17	0.17	117	3.10	0.10
0.09	0.09	118	4.07	0.07
0.05	0.05	119	5.05	0.05

5 Trading Day ATM Time Decay

Source: LiveVol Pro

Implied Volatility Vega

Example

Vega

IV	Delta	Gamma	Theta	Vega	Price	Strike	Price	IV	Delta	Gamma	Theta	Vega
19.28%	0.96	0.03	-0.02	0.01	5.13	109	0.08	20.62%	-0.05	0.03	-0.03	0.02
17.47%	0.94	0.05	-0.03	0.02	4.15	110	0.12	19.12%	-0.08	0.05	-0.03	0.02
16.77%	0.88	0.07	-0.04	0.03	3.23	111	0.19	17.89%	-0.13	0.08	-0.04	0.03
16.93%	0.79	0.11	-0.06	0.05	2.40	112	0.33	16.85%	-0.21	0.11	-0.06	0.05
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15.71%	0.52	0.16	-0.07	0.06	1.03	114	0.95	15.63%	-0.48	0.16	-0.07	0.06
15.67%	0.36	0.15	-0.07	0.06	0.60	115	1.53	15.76%	-0.64	0.15	-0.07	0.06
15.79%	0.22	0.12	-0.05	0.05	0.32	116	2.26	16.00%	-0.77	0.12	-0.05	0.05
16.14%	0.13	0.08	-0.04	0.03	0.17	117	3.10	16.28%	-0.87	0.08	-0.04	0.04
16.70%	0.07	0.05	-0.03	0.02	0.09	118	4.03	17.10%	-0.92	0.05	-0.03	0.02
17.43%	0.04	0.03	-0.02	0.01	0.05	119	5.00	18.94%	-0.95	0.04	-0.02	0.02

IV is more 'smile like'

Vega is relatively high for ATM options

Source: LiveVol Pro

Long Stock Replication

Overview

- **Many short term stock traders have started trading short dated options as a substitute for long stock trades**
- **We saw in the previous section how ITM options have very little time value and a high delta**
- **Buying a call option with a delta over 0.90 is very similar to putting on a short term trade using a high amount of leverage**
- **However, there is a limit to the potential losses when options are used**

Long Stock Replication

Example

5 Day Call Options with GOOGL @ 800.00

Strike Price	Call Price	Delta	Time Value
760	40.60	0.97	0.60
765	36.45	0.95	1.45
770	31.50	0.94	1.50
775	26.70	0.91	1.70
780	21.80	0.89	1.80
785	16.95	0.85	1.95
790	12.85	0.76	2.85
795	9.30	0.65	4.30
800	6.10	0.52	6.10

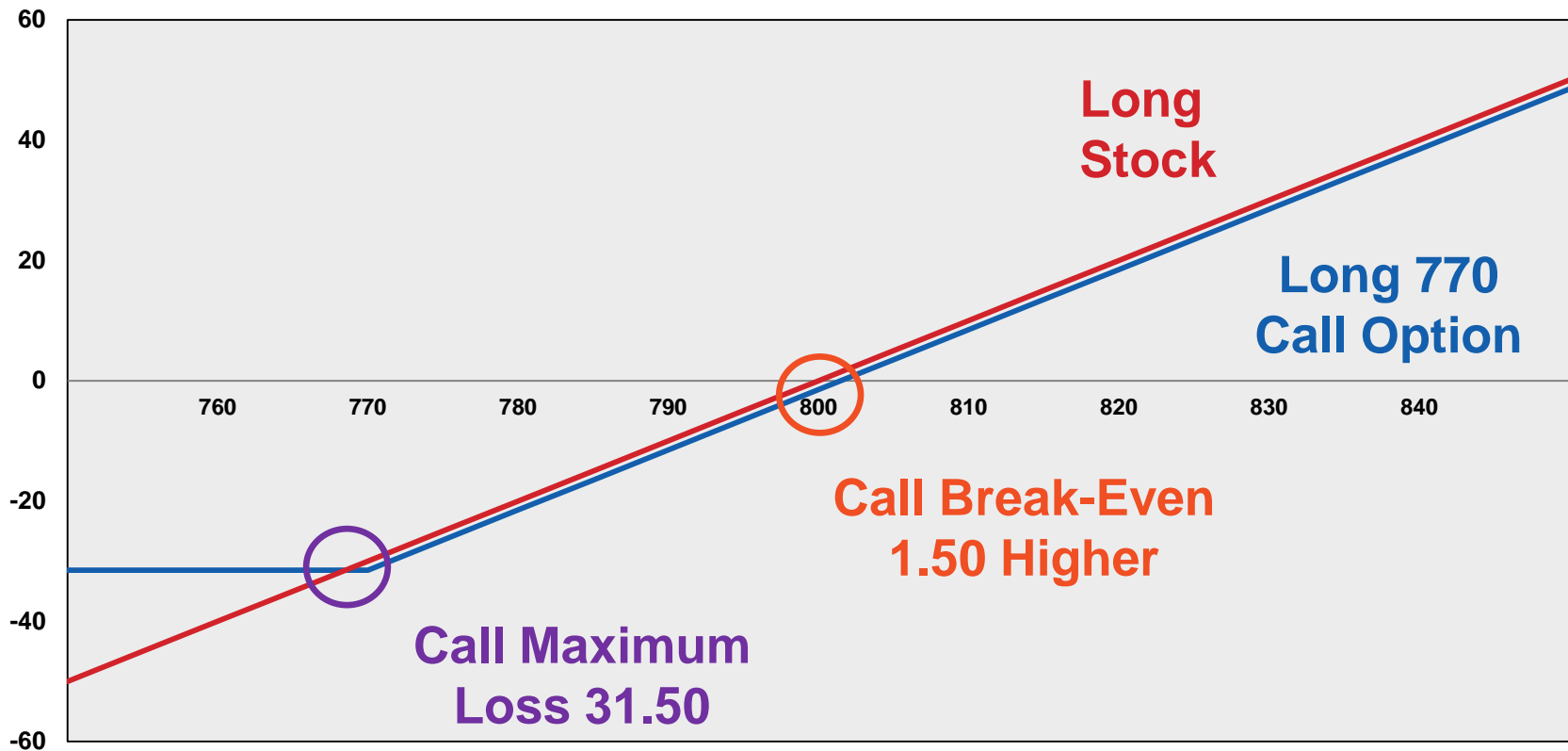
Buy 1 GOOGL 5-Day 770 Call for 31.50

Source: LiveVol Pro

Long Stock Replication

Example

Long 1 GOOGL 5-Day 770 Call at 31.50



Short Stock Replication

Overview

- **In the money puts will have deltas close to -1 and very little time value**
- **This combination results in them being a good substitute for shorting a stock**
- **Another benefit is the limited risk of buying a put relative to selling a stock short**

Short Stock Replication

Example

5 Day Put Options with LOW at 71.30

Strike Price	Put Price	Delta	Time Value
71	0.60	-0.42	0.60
72	1.10	-0.65	0.40
73	1.85	-0.84	0.15
74	2.80	-0.94	0.10
75	3.75	-0.99	0.05

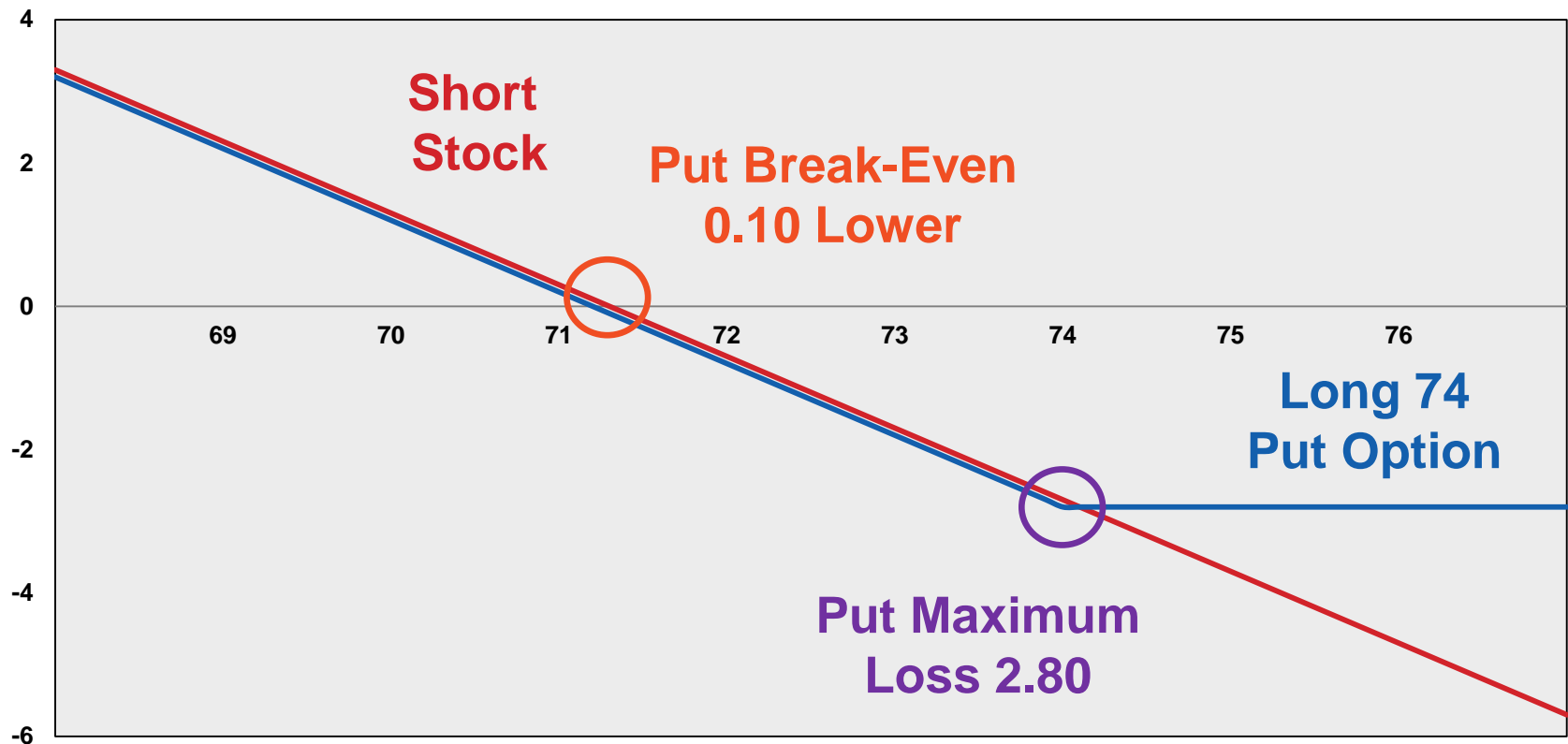
Buy 1 LOW 5-Day 74 Put at 2.80

Source: LiveVol Pro

Short Stock Replication

Example

Long 1 LOW 5-Day 74 Put at 2.80



Index Options

Fed Trade

- **Tuesday September 20, 2016 – day before fed announcement**
- **Bullish on the reaction (because when Janet speaks the market rallies)**

S&P 500 at 2139.75

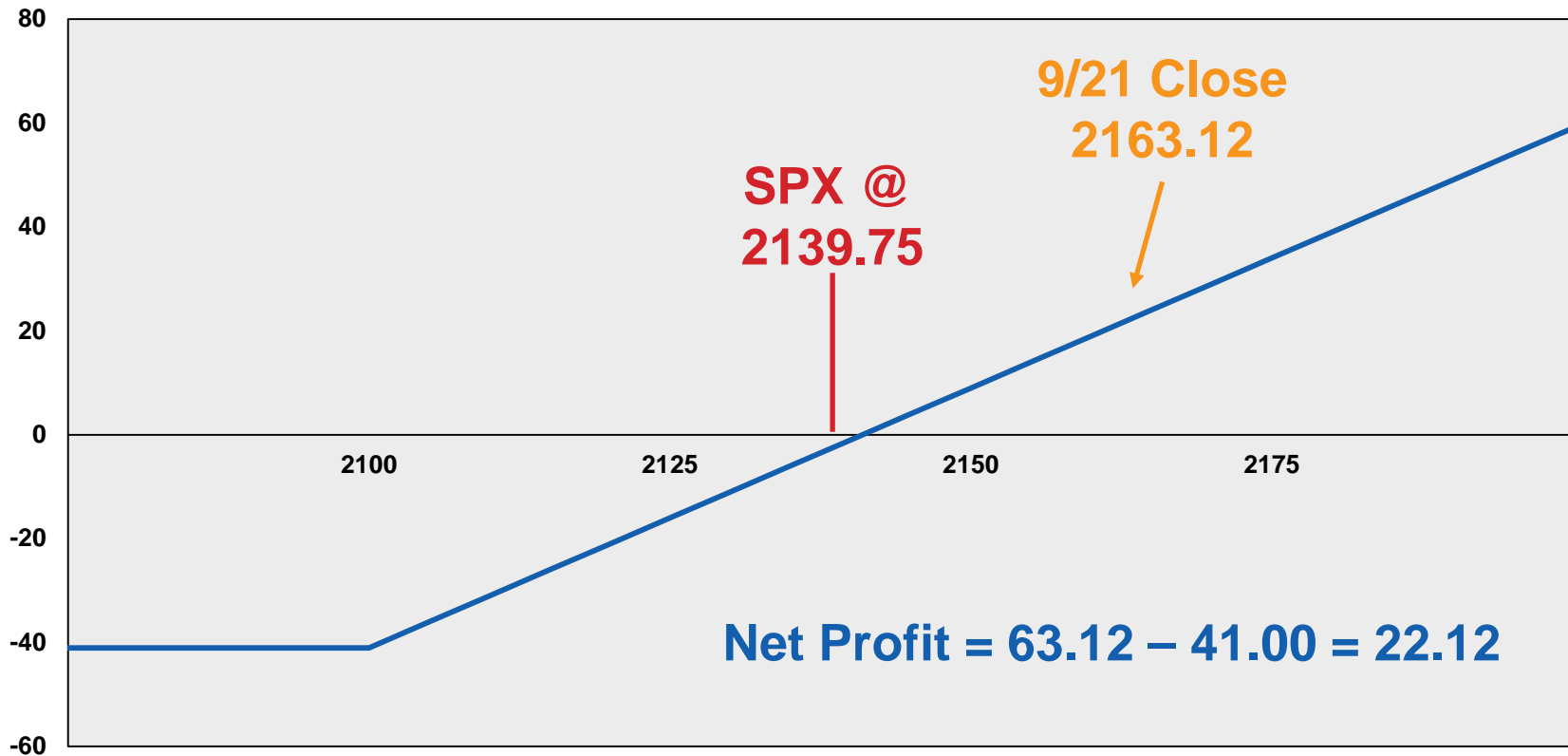
Buy 1 SPX Sep 21st 2100 Call at 41.00

Time Value of 1.25

Index Options

Fed Trade

Long 1 SPX Sep 21st 2100 Call at 41.00



Index Options

Fed Trade

Futures Comparison

	Futures Trade	Option Trade
Trade	Buy 1 ES at 2132.75	Buy 1 SPX 2100 Call at 41.00
Cost	\$4500 Maintenance Margin	\$4100 Cost of Option
Risk	Unknown	\$4100 Cost of Option
Exit	Sold 1 ES at 2156.25	Settled at 2163.22
Point Profit	23.50	22.12
Dollar Profit	\$1,175	\$2,212

Index Options

Fed Trade

- You can also reduce your option cost by selling another option
- Tuesday September 20, 2016 – day before fed announcement
- Bullish on the reaction (because when Janet speaks the market rallies)

S&P 500 at 2139.75

Buy 1 SPX Sep 21st 2100 Call at 41.00

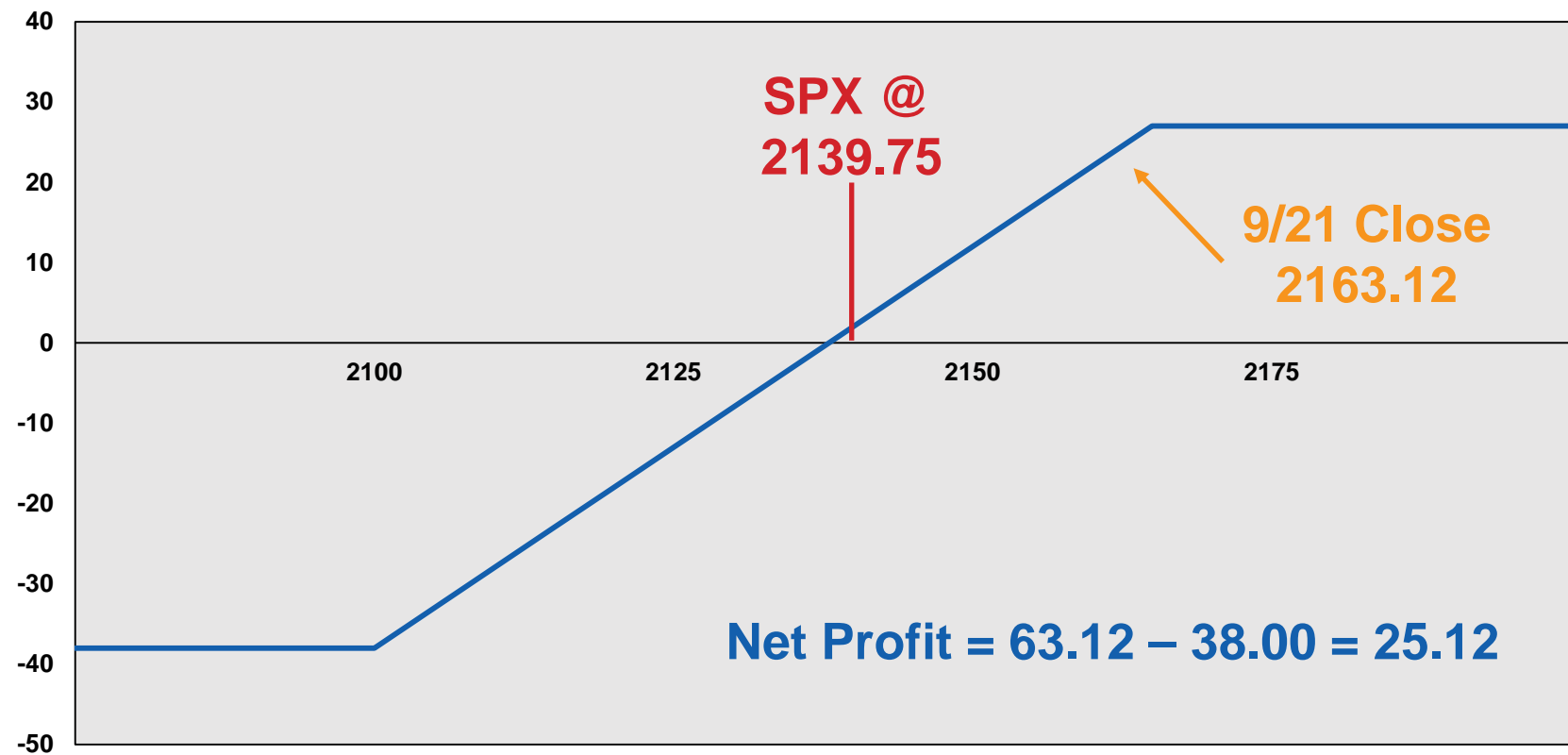
Sell 1 SPX Sep 21st 2165 Call at 3.00

Net Cost = 38.00

Index Options

Fed Trade

Long 1 SPX Sep 21st 2100 Call at 41.00 + Short 2165 Call at 3.00



Index Options

Fed Trade Number 2

Tuesday March 15th

SPX @ 2015

Bullish on SPX into FOMC

Buy 1 SPX Mar 16th 2015 Call at 9.00

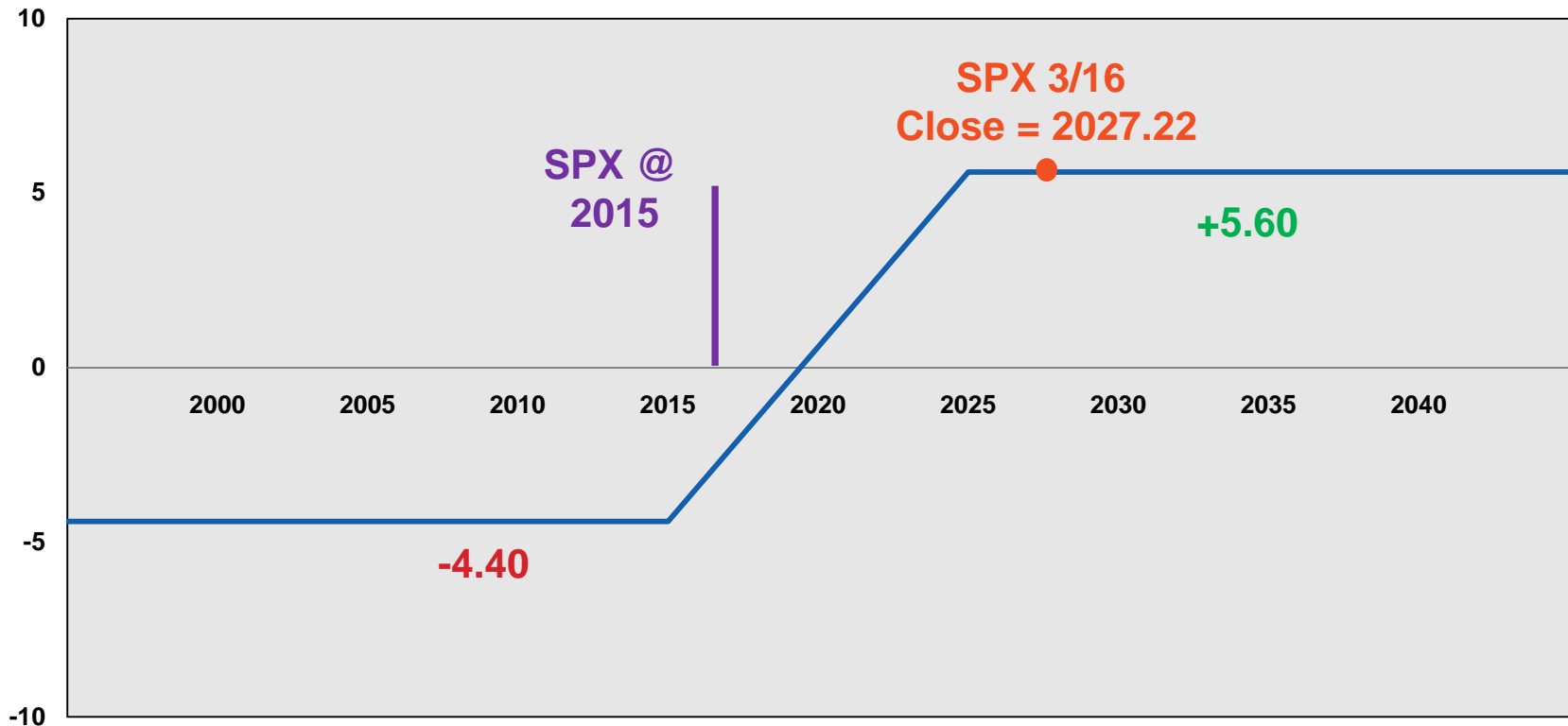
Sell 1 SPX Mar 16th 2025 Call at 4.60

Net Cost = 4.40

Index Options

Fed Trade Number 2

Long SPX 2015 Call + Short SPX 2025 Call



Index Options

Fed Trade Number 3

FOMC Minutes Trade –

About 12:00 April 6th

SPX at 2058

Bullish into FOMC Minutes

Buy SPX Apr 6th 2055 Put at 1.80

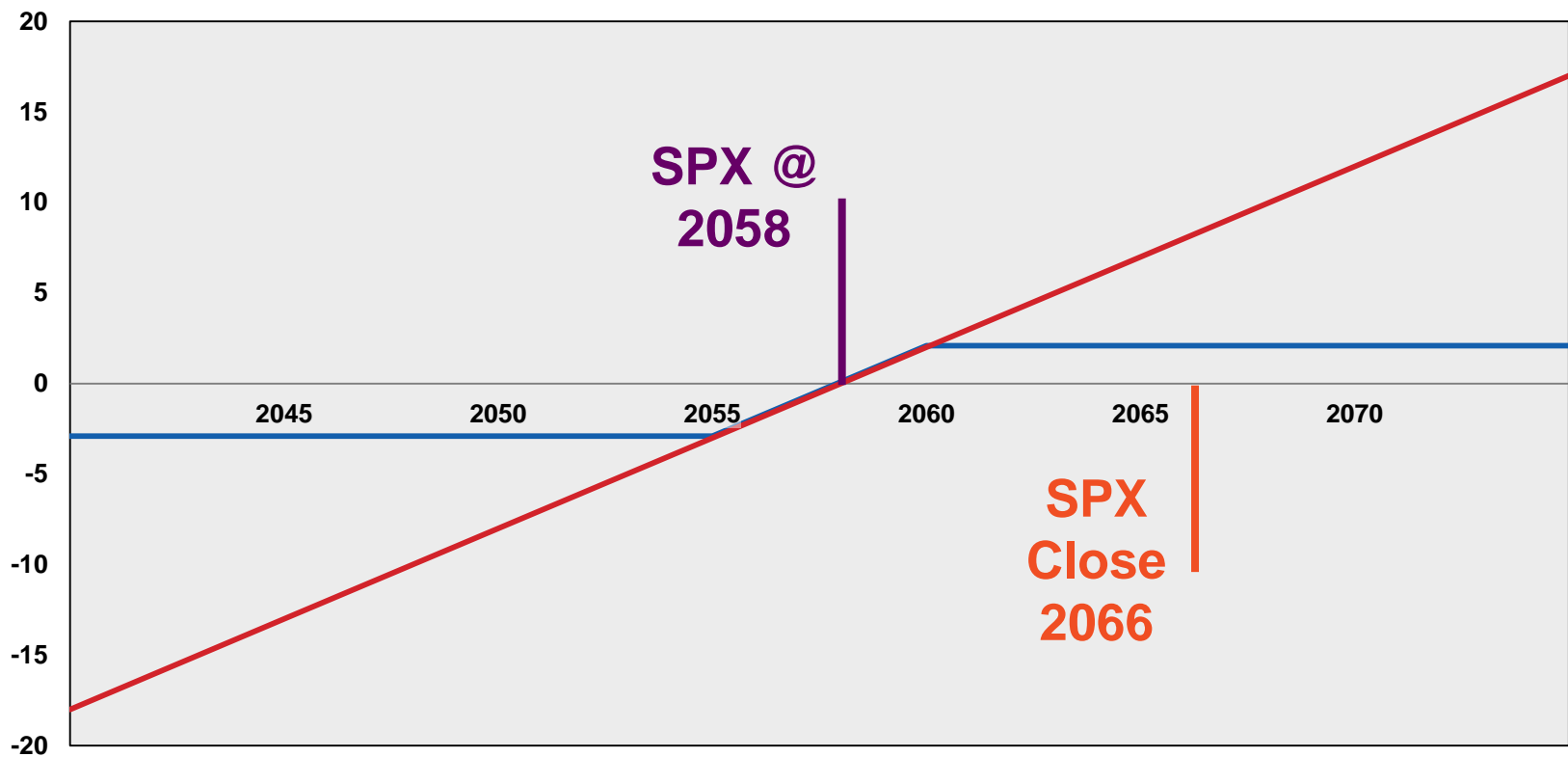
Sell SPX Apr 6th 2060 Put at 3.90

Credit = 2.10

Index Options

Fed Trade Number 3

Payoff Diagram –



Strategies with Weeklys

Questions / Contact

Questions?

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