

EARNINGS TRADES

2018-05-23

RDO SFFxO Traders Meetup (Raleigh
Durham Open Stocks Futures FX
Options Traders)

Dan Queen— Background

- Product Management for ITT, Alcatel-Lucent
 - (Electrical Engineer by training-Marketing)
- Retired 2012, started trading full time
- Tried various trading or studied methods
 - IBD canslim, Dailygraphs, Vectorvest, Wisetrade, OptionMONSTER ...
 - Opened Datek Margin Acct 2002=>TDA Sept 2002, OptionXpress =>Schawb, Fidelity IRA
 - Watched CNBC, Cramer's books/TV, Barrons, AAll ...
 - Investools course 2011, Reading and Study
 - 2012 TDA Trader TV clicked on Tastytrade and ShadowTrader
 - Today options trades are done on tos, tastyworks and few on Fidelity

Earnings Trade Presentation outline

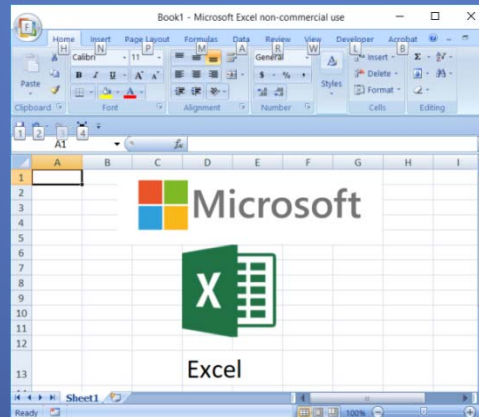
- Market Maker Move (MMM)
- Implied Volatility (IV), IVRank, IVPercentile
- Probability of touch
- thinkorswim (tos) Platform use set-ups
- Trade set-up
- Chart examples
- Results YTD of earnings trades
- Q&A

Thanks to Tom Sosnoff



Thanks to Bill Gates Excel

VisiCalc created by Dan
Bricklin, Software
Arts with Bob Frankston



Why I trade earnings

- 2014 When I started trading frequently it was the only time I could collect any premium
- See the results quickly, late afternoon Mon-Thur and close the next day or two.
- Have more trading occurrences



Watching little improvement of decision ability



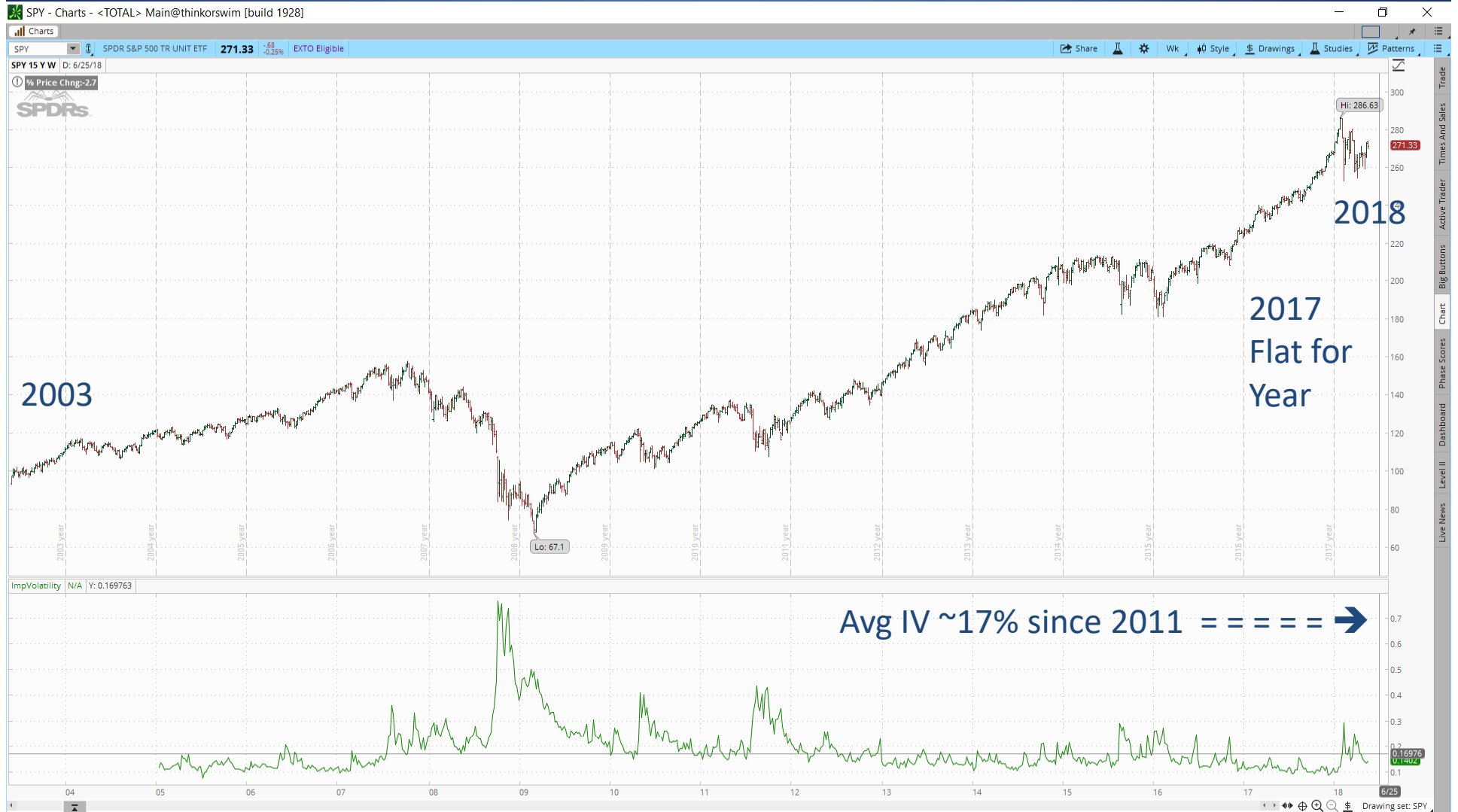
Need Batting Practice
Learn by doing



How

- Trade from the short side. Sell Strangles or Iron condors in the case of high priced stocks, ~Delta Neutral
- Place the trade close to day's end for earnings after the close and before next day's market open.
- Profit by the IV crush after earning announcement is released. Buy back position at profit

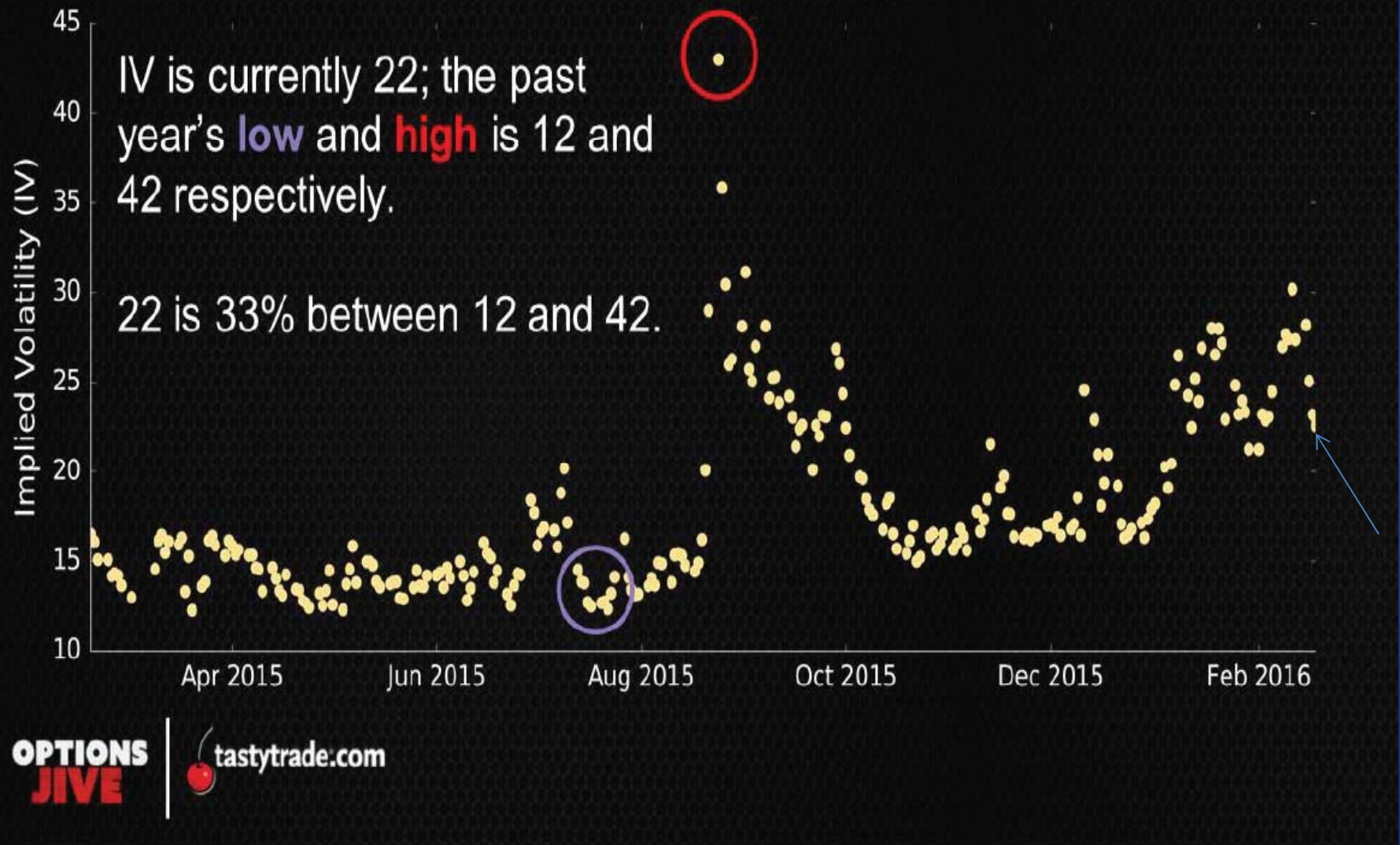
SPY 2003-20180518 Weekly Bars



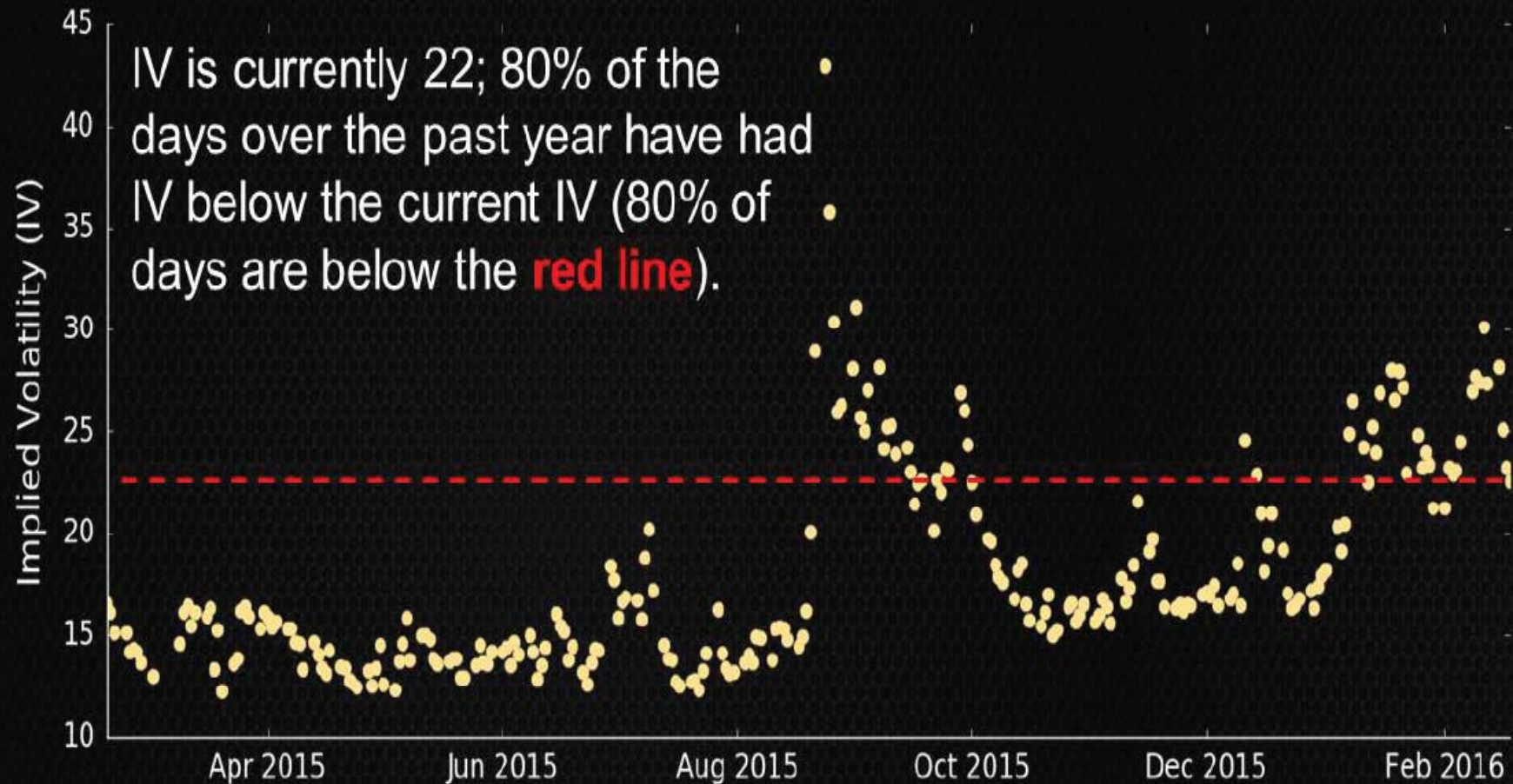
Volatility

- Implied Volatility (IV) is determined by the current option contracts pricing on a particular stock or future. It is represented as a percentage that indicates the annualized expected one standard deviation range for the stock based on the option prices. For example, an IV of 25% on a \$200 stock would represent a one standard deviation range of \$50 over the next year.
- IV Rank
- IV Percentile

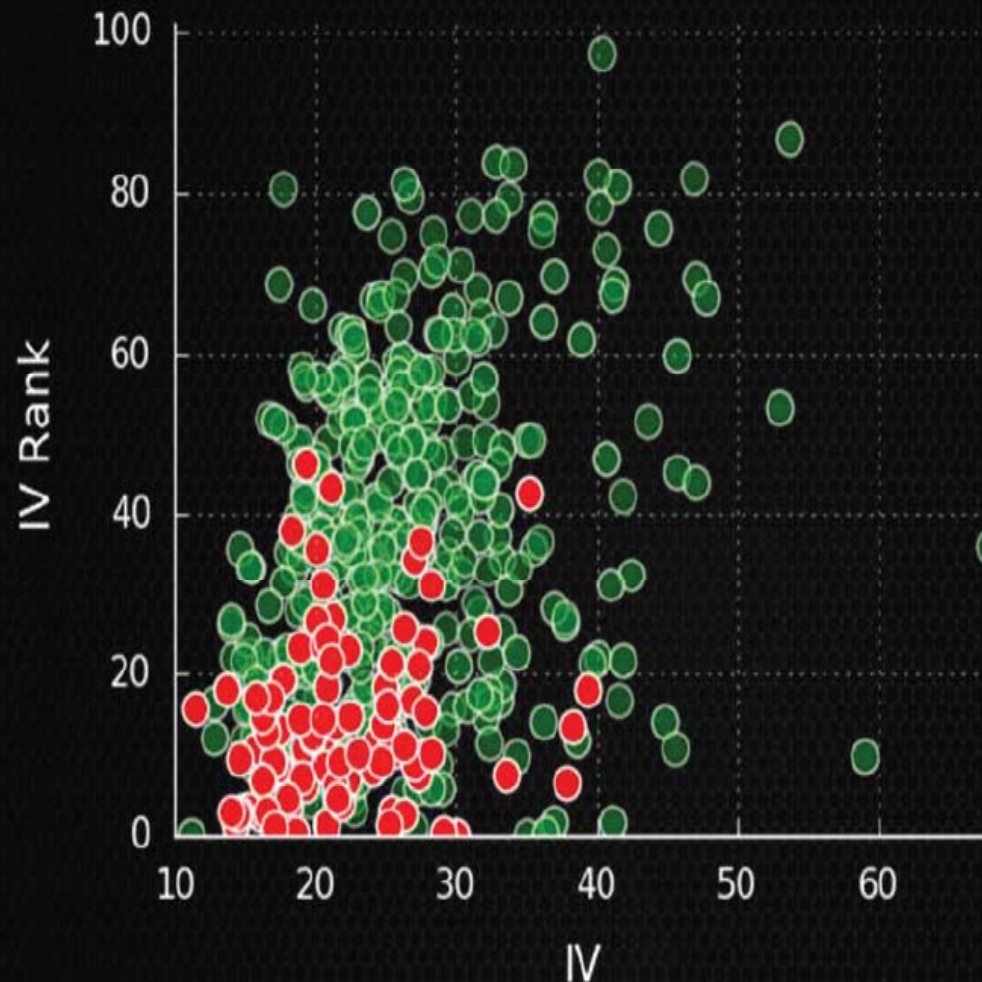
Difference between IV Rank IV Percentile



IV Percentile



IV Collapse after earnings announcements



Stocks whose **earnings haven't been released** have higher implied volatilities (IV); while those **whose earnings have past** have lower IV.

Selling IV thus works in your favor around these events.

tos chart showing IV, IV Rank, IV Percentile earnings est-act and time

SEE thinkscript at end of presentation, show edit study



ATT IV Drop After Earnings Example

7/25/17

10/24/17

1/31/18

4/25/18



Show live tos chart examples here

Skipped in presentation: secure access to tos platform unavailable



What is Market Maker Move ($_{MM_M}$)

- MMM, or Market Maker Move, measures the expected magnitude of price movement based on market volatility. It measures the implied move based on volatility differential between the front and back month. The MMM helps to identify the implied move due to an event between now and the front month expiration (if an event exists).
- http://tlc.thinkorswim.com/center/faq/general.html#q_01111111111119

Market Maker Move (M_M)

- Expected move is the amount that a stock is predicted to increase or decrease from its current price, based on the current level of implied volatility for binary events. We use this calculation on the day before the binary event or very close to the expiration date. The expected move of a stock for a binary event can be found by calculating 85% of the value of the front month at the money (ATM) straddle. Add the price of the front month ATM call and the price of the front month ATM put, then multiply this value by 85%. Another easy way to calculate the expected move for a binary event is to take the ATM straddle, plus the 1st OTM strangle and then divide the sum by 2.

We only use this for a binary event because the accuracy of premium decay and all of the variables associated with implied volatility are too rich to accurately reflect expected move for a longer time period.

- <https://www.tastytrade.com/tt/learn/expected-move> 20180502

Front-Back Month IV Difference MMM location

All Products Main@thinkors...

TWTR 30.47 0 0.00% B: 31.55 A: 31.57 **MM ±3.072** Company Profile

Underlying

Last X	Net C...	Bid X	Ask X	Size	Volume	Open	High	Low
30.47 N	0	31.55 P	31.57 Q	10 x 19	5,876,...	0	0	0

Trade Grid

Option Chain Filter: Off Single Position, Mark, Net Change, Probab

Date	Quantity	Strike	Term	Delta	Gamma	Theta	Vega	Rho
27 APR 18	(2)	100	(Weeklys)	157.36%	(±3.52)			
4 MAY 18	(9)	100	(Weeklys)	107.60%	(±4.387)			
11 MAY 18	(16)	100	(Weeklys)	85.46%	(±4.542)			
18 MAY 18	(23)	100		76.06%	(±4.807)			
25 MAY 18	(30)	100	(Weeklys)	71.60%	(±5.151)			
1 JUN 18	(37)	100	(Weeklys)	69.55%	(±5.552)			
15 JUN 18	(51)	100		62.26%	(±5.822)			
20 JUL 18	(86)	100		55.67%	(±6.775)			
21 SEP 18	(149)	100		53.96%	(±8.755)			
21 DEC 18	(240)	100		50.50%	(±10.558)			
18 JAN 19	(268)	100		50.85%	(±11.316)			
17 JAN 20	(632)	100		47.76%	(±17.478)			

Today's Options Statistics

Options Time & Sales Series: no selected

Product Depth

All Products - <TOTAL> Main@thinkors...

BBY 79.12 +61 +0.78% B: 79.12 A: 79.13 ETB Company Profile

Underlying

Last X	Net C...	Bid X	Ask X	Size	Volu...	Open	High	Low
79.12 D	+61	79.12 P	79.13 K	1 x 1	1,257,...	78.88	79.59	78.63
Yield	PE	Div	Div.Fr...	Ex Di...	52High	52Low	Shares	Be...
2.28%	24.27	.45	Q	3/21/18	79.8999	50.29	281,9...	1.009

Trade Grid

Option Chain Filter: Off Single Position, Mark, Net Change, Probab

Date	Quantity	Strike	Term	Delta	Gamma	Theta	Vega	Rho
18 MAY 18	(1)	100		26.41%	(±1.176)			
25 MAY 18	(8)	100	(Weeklys)	70.71%	(±6.966)			
1 JUN 18	(15)	100	(Weeklys)	55.01%	(±7.261)			
8 JUN 18	(22)	100	(Weeklys)	48.80%	(±7.741)			
15 JUN 18	(29)	100		46.86%	(±8.506)			
22 JUN 18	(36)	100	(Weeklys)	41.42%	(±8.353)			
29 JUN 18	(43)	100	(Weeklys)	40.55%	(±8.928)			
20 JUL 18	(64)	100		37.39%	(±10.029)			
21 SEP 18	(127)	100		37.34%	(±14.178)			
21 DEC 18	(218)	100		37.62%	(±18.919)			
18 JAN 19	(246)	100		38.79%	(±20.836)			
17 JAN 20	(610)	100		35.58%	(±31.199)			

Today's Options Statistics

Options Time & Sales Series: no selected

Product Depth

Frnt mth less than back mth therefore no MMM shown (data 20180518)

Probability of touch ~ 2x Prob ITM or Delta during trade

PROBABILITY OF TOUCH: REALISTIC EXPECTATIONS

Study:

S&P 500 ETF (SPY) 2005 - 2015

- Sold 1 SD Strangle (16 Delta Call and Put)
 - Every Trading Day
 - Closest to 45 days-to-expiration
- Tested where SPY touched the Call or Put before expiration

SPY	Expected Touch	Actual Touch
16 Delta Puts	32%	26%
16 Delta Calls	32%	42%

Next consider how often the underlying price moves away from the strike price, the realized % that expire in-the-money.

MARKET
MEASURES



tastytrade.com

Probability of touch (cont)

PROBABILITY OF TOUCH: REALISTIC EXPECTATIONS

Once again, puts prove have lower probabilities of expiring ITM than expected, while the calls have slightly higher realized numbers.

SPY	Expected Touch	Actual Touch	Expected Expire ITM	Actual Expired ITM
16 Delta Puts	32%	26%	16%	10%
16 Delta Calls	32%	42%	16%	17%

Overall, 60% of all the strangles where the underlying touched either side came back to expire with both sides out-the-money.

Guide To Trading Earnings

One isn't better, since there are tradeoffs involved with each.

Use Weekly Expirations

Higher possible ROC

The overall possible p/l is smaller;
the daily P/L though is larger

Large moves in the stock require
quick management

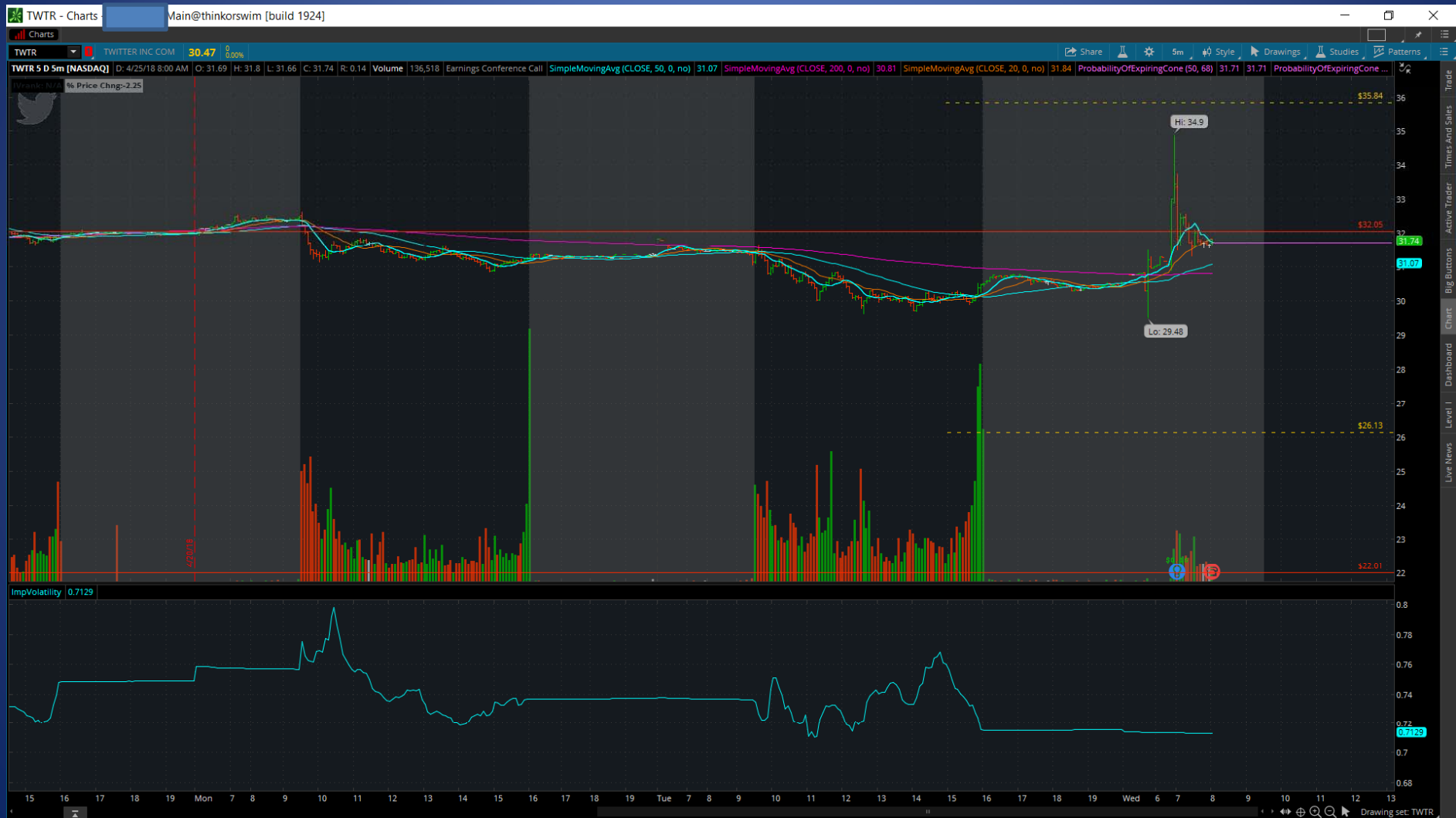
Use Monthly Expirations

Lower possible ROC

The overall possible profit is
larger; the daily P/L is lower

Large moves in the stock
require less of a "hyperactive
approach"

Example: TWTR 4/24-4/25/2018



Example: TWTR IV DROP 3 MIN IN



PLCE – TRADE NEAR MKT CLOSE



The Plan

- Learn the strategy and build your own trades.
- Be able to explain the trade.
- You control trade entry, see opportunity of your advantage.
- Size the trade 1-2% of portfolio
- Take profit at 50% for strangles and 25% for straddles
- Control loss at 2 times the credit collected

The Plan (cont)

- Avoid Biotechnology(BIO), Pharmaceuticals (PHAM) Industries
- Avoid take over and merger stocks
- Understand the limitations IRA vs Margin accts
- Nobody knows anything
- I do not know anything, my opinion does not matter
- The math works! (with enough occurrences)
 - Insurance co, Casinos, Banks loan money ...

Market Awareness

- What is the level of VIX
- Individual stocks follow
- Rising tide will lift all boats
- Stock all time high, low, or mid range
- Center trade?
- Regular expirations more liquid than weeklies

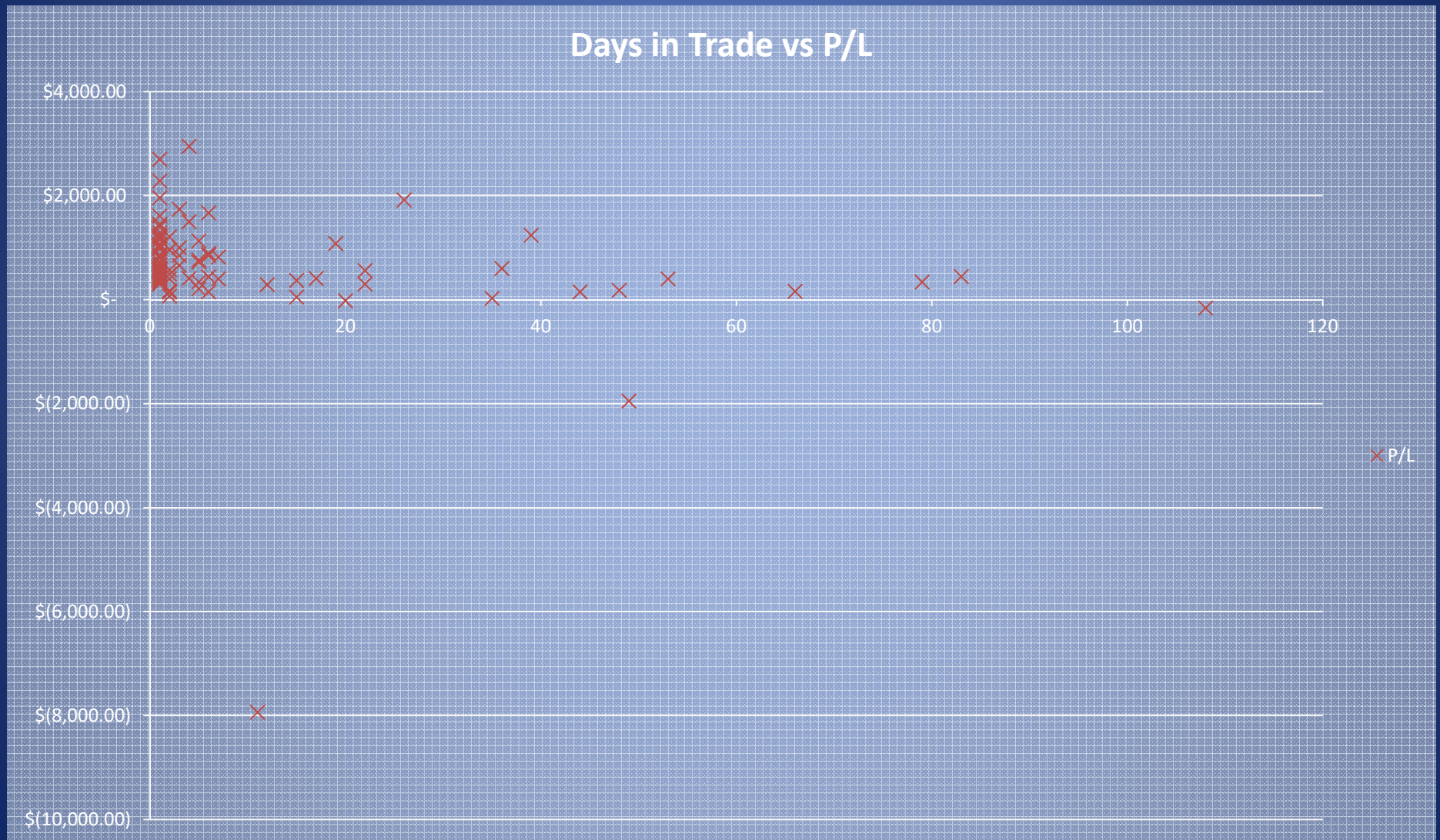
Trading Buddy

- Started tastytrade and analyzed their live trades in TDA thinkorswim, tos, platform.
- Started using tos to determine trade success and profit probabilities. Shadow trader for current mkt movement.
- Make each trade SMALL % of portfolio allowing you to manage trades gone wrong.
- Learn how to win, then make profit, be able to take a small loss and be proud.

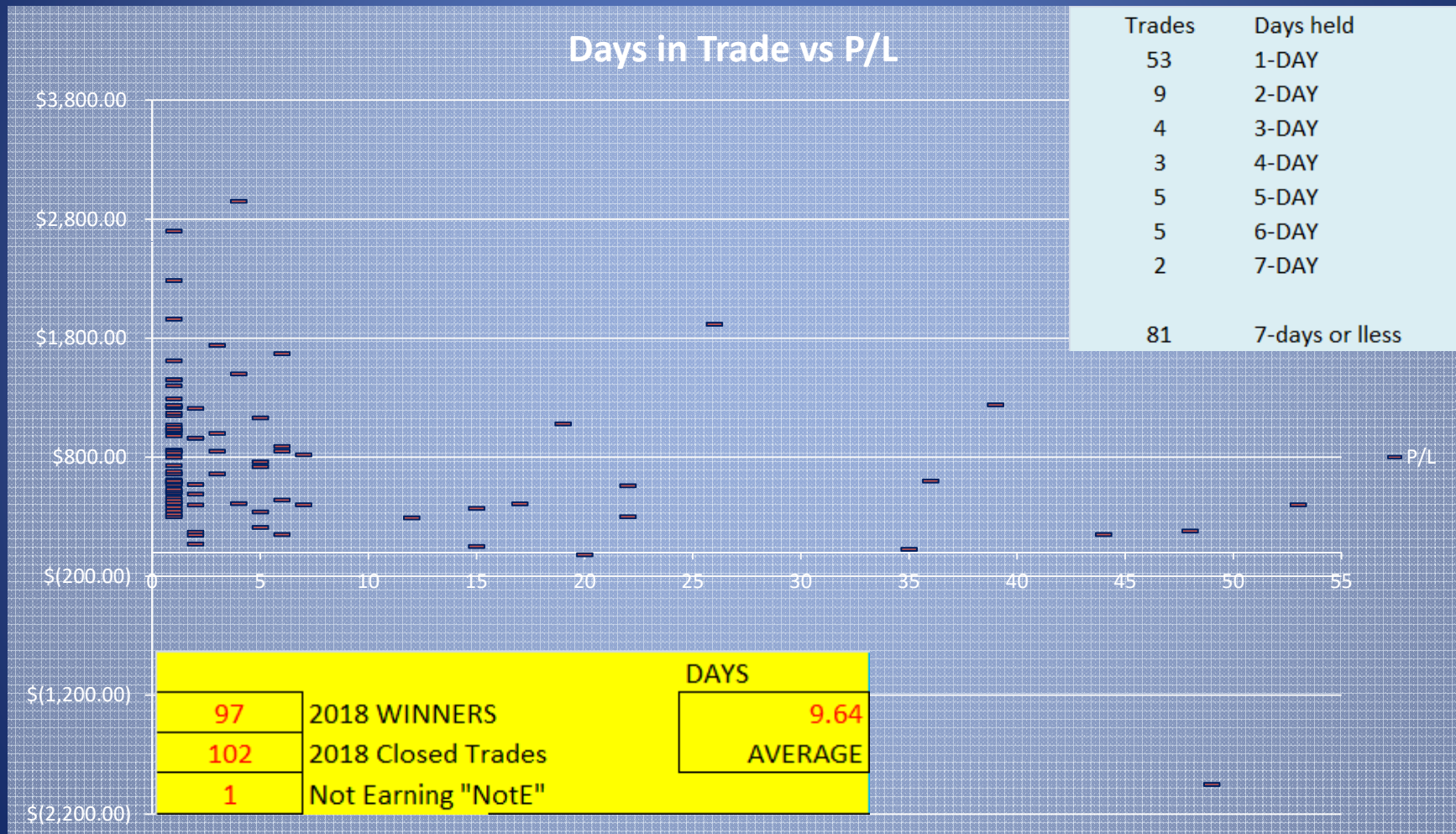
Trade set up and Results

- Earning trade the near close the day before earnings announcements
- Tight stock bid-ask spreads, the tight option B/A on atm strikes.
- Highest IVR+IVP with the following IVR>50, IVP 75
- At least 15% difference between Front Mth and Back Mth IV
- 500K or more avg daily shares traded
- Select short strangle strikes 1.5 the MMM, Check the open interest
- Most brokers (tos,TDA,Fidelity,Schawb...) require IRA accounts buying a further OTM call strike to define risk. Tastyworks allows naked short calls in IRA does not
- For high priced stocks, Iron Condors traded with same short strikes above and IRA accounts
- Buy back “to close” the trade next am. Place GTC order at your target profit level
- Excel win loss, Scatter chart, bar chart follows
 - I am offering this as my experience and not a recommendation of any future trades.

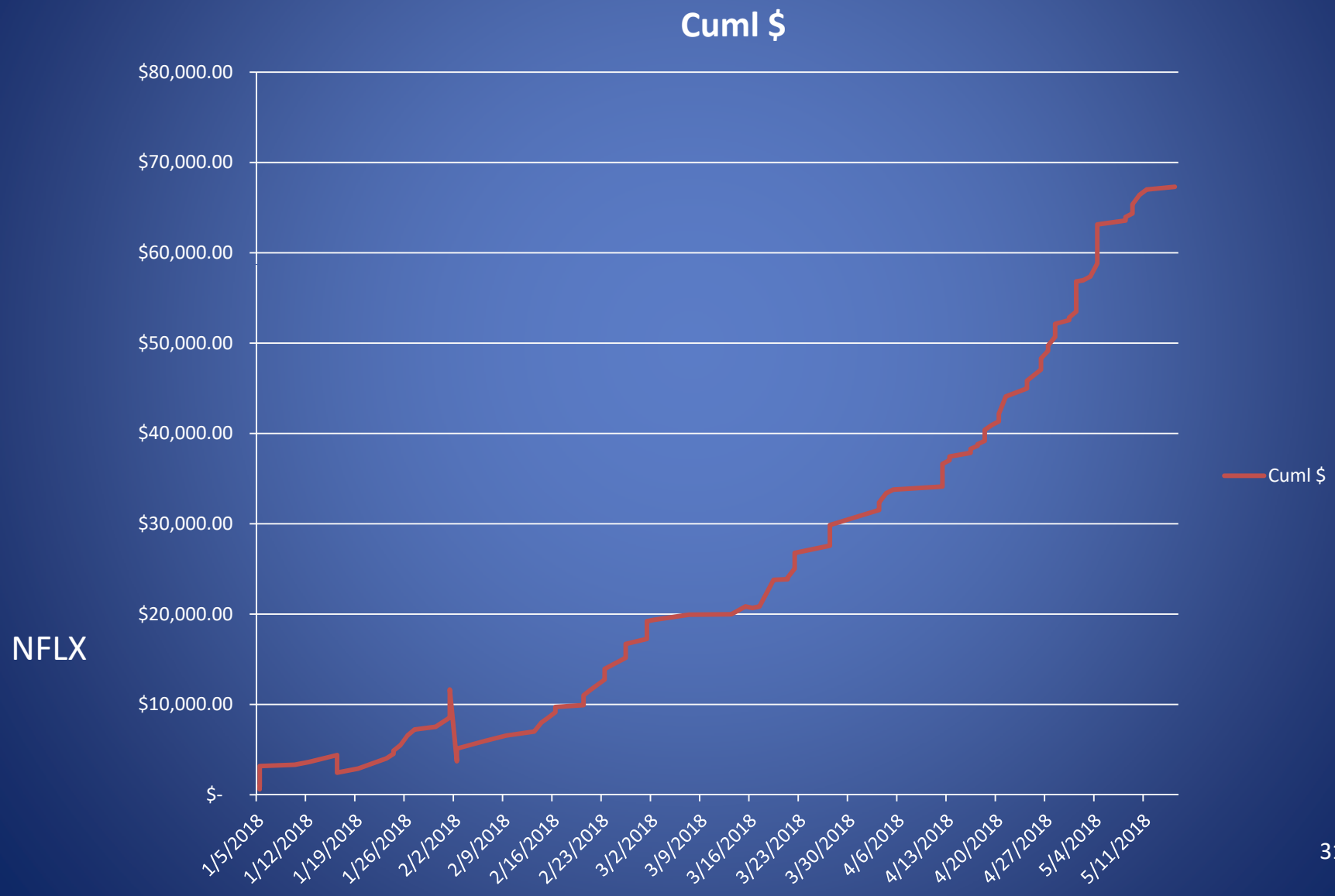
Results Scatter Chart Days vs P/L



Zoom in on 0 to 55 days



Closed Trades Cumulative \$



Review Summary

- You know what the MMM is.
- You know what IV, IVRank, IVPercentile are.
- Probability of touch is and what to expect when you place a trade
- thinkorswim (tos) Platform use set-ups
- Trade set-up how to pick a trade suitable to your level of acceptable risk, you control order entry.

Future Talks could:

- Continue on how to find stocks to trade earnings using Excel.
 - Download stocks with upcoming earning
 - Remove ones without options
 - Remove low priced stocks
 - Note stocks in certain sectors to avoid
 - Rank order by opportunity
- Defending trades gone wrong
 - Rolling untested side to collect additional premium depending on DTE
 - Roll out in time and wait to be right
 - Close trade when loss is 2x credit collected

Trade for today and tomorrow

- TODAY

- SELL -10 STRANGLE BBY 100 (Weeklys) 25 MAY 18 85/66 CALL/PUT @.68 LMT [TO OPEN/TO OPEN]
- SELL -10 STRANGLE BBY 100 (Weeklys) 1 JUN 18 85/66 CALL/PUT @.83 LMT [TO OPEN/TO OPEN]

- TOMORROW

- 5/24 AFTER MKT CLOSE

- SELL -10 STRANGLE ADSK 100 (Weeklys) 1 JUN 18 155/123 CALL/PUT @1.64 LMT CHECK LATER PRICE
 - ADSK AMSC DECK DXC EGHT GPS NTN PLUS QSII ROST SBLK SCVL SPLK VEEV VSAT ZOES

- 5/25 BEFORE MKT OPEN

plots both IV Rank and IV Percentile (thinkscript)

```
# tastytrade/dough
# m.r. v1.6
#
# plots both IV Rank and IV Percentile
#
# IV Rank is a description of where the current IV lies in comparison to its yearly high and low IV
# IV Percentile tells the percentage of days over the last year, that were below the current IV
#
# for information on the two, see Skinny on Options Data Science, titled "IV Rank and IV Percentile"
# http://ontt.tv/1Nt4fcS
```

```
declare lower;
declare hide_on_intraday;
input days_back = 252; # we usually do this over one year (252 trading days)
```

```
# implied volatility
# using proxies for futures
def df = if (GetSymbol() == "/ES") then close("VIX") / 100
else if (GetSymbol() == "/CL") then close("OIV") / 100
else if (GetSymbol() == "/GC") then close("GVX") / 100
else if (GetSymbol() == "/SI") then close("VXSLV") / 100
else if (GetSymbol() == "/NQ") then close("VXN") / 100
else if (GetSymbol() == "/TF") then close("RVX") / 100
else if (GetSymbol() == "/YM") then close("VXD") / 100
else if (GetSymbol() == "/6E") then close("EVZ") / 100
else if (GetSymbol() == "/ZN") then close("VXTYN") / 100
else imp_volatility();
```

```
def df1 = if !IsNaN(df) then df else df[-1];
```

```
# display regular implied volatility
# -----
AddLabel(yes, "IV: " + Round(df1 * 100.0, 0), Color.ORANGE);
```

```
# calculate the IV rank
# -----
# calculate the IV rank
def low_over_timespan = Lowest(df1, days_back);
def high_over_timespan = Highest(df1, days_back);
```

```
def iv_rank = Round( (df1 - low_over_timespan) / (high_over_timespan - low_over_timespan) * 100.0, 0);
plot IVRank = iv_rank;
IVRank.SetDefaultColor(Color.GRAY);
AddLabel(yes, "IV Rank: " + iv_rank + " (i.e. our default metric for analyzing IV)", Color.GRAY);
```

```
# calculate the IV percentile
# -----
# how many times over the past year, has IV been below the current IV
def counts_below = fold i = 1 to days_back + 1 with count = 0
```

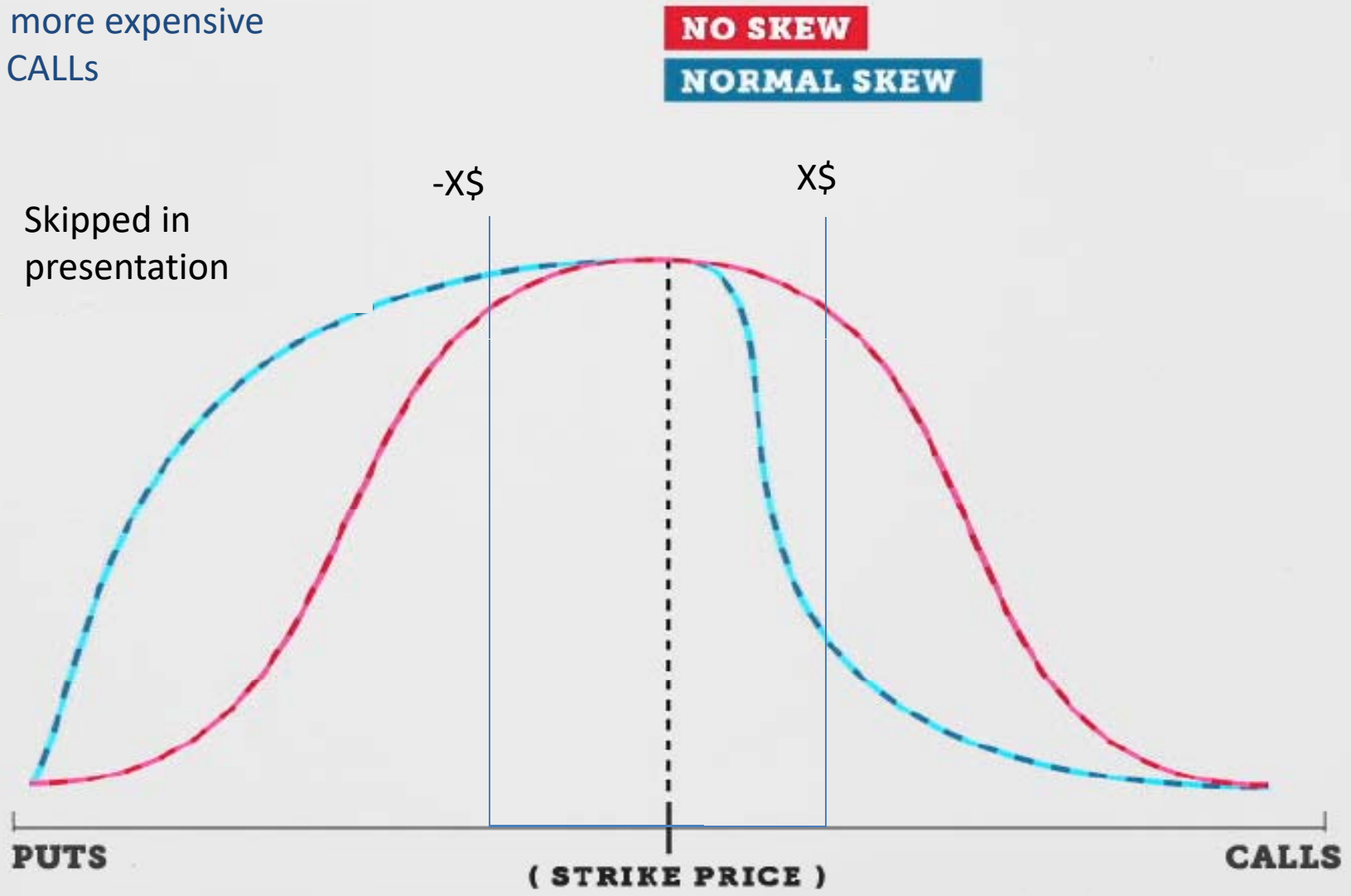
REFER TO SEPARATE TXT FILE
IVR IVP RankLevelsTTmrv1dot6.txt

Sources used + Resources

- All information is free and does not require any trial period to a site future commitment. Cut and past the link in your browser. You may have to search for the individual show name tile on the tastytrade site then by date to hear a replay of that show segment. Links with the s3.amazonaws should go to the show segment slides. If your are in a show segment video, click on the “Research Slides” download a copy of the slides.
NOTE OJ=Options Jive MM = Market Measure
- <https://www.tastytrade.com/tt/shows/the-skinny-on-options-data-science/episodes/iv-rank-and-iv-percentile-w-thinkscript-11-12-2015>
 - SkinnyDataScience111215IV_Rank_and_IV_Percentile_SMSTR_rev2.pdf
- support@tastytrade.com for cherry picks mail list free. Cherry Picks Earnings Addition 20180413 good info for earnings season candidates. Remember to verify the date and time of release prior to placing the trade. “S### Happens” and companies will change (rarely) the date.
18_04_13_tastytrade_Research.pdf https://s3.amazonaws.com/cherry-picks-s3-bucket-newsletter/live/18_04_13_tastytrade_Research.pdf?mc_cid=96dc2d79bf&mc_eid=e9dad77ebc
- OJ_EarningsApproach_180419.pdf
https://s3.amazonaws.com/tastytradepublicmedia/show/123/episode/41397/slide_decks/en/OJ_EarningsApproach_180419.pdf?1524148278
- MM_StraddlePremium_ExpectedMoves__ActualMoves_180419.pdf
 - https://s3.amazonaws.com/tastytradepublicmedia/show/9/episode/41398/slide_decks/en/MM_StraddlePremium_ExpectedMoves_ActualMoves_180419.pdf?1524149358
- 16_02_19_Difference_Between_IV_Rank_and_IV_Percentile_(OJ).pdf
 - <https://www.tastytrade.com/tt/shows/options-live/episodes/difference-between-iv-rank-and-iv-percentile-02-19-2016>
- 16_04_08_Probabilty_of_Touch- Realistic Expectations (MM)_rev.pdf
 - [https://s3.amazonaws.com/tastytradepublicmedia/show/9/episode/27059/slide_decks/en/16_04_08_Probability_of_Touch- Realistic Expectations \(MM\)_rev.pdf?1460137437](https://s3.amazonaws.com/tastytradepublicmedia/show/9/episode/27059/slide_decks/en/16_04_08_Probability_of_Touch- Realistic Expectations (MM)_rev.pdf?1460137437)
- 2016_04_28_Probability_of_Touch.pdf
 - <https://www.tastytrade.com/tt/shows/market-measures/episodes/probability-of-touch-realistic-expectations-04-08-2016>
- OJ_GuideToTradingEarnings_170427.pdf
 - <https://www.tastytrade.com/tt/shows/options-jive/episodes/guide-for-trading-earnings-04-27-2017>
 - https://s3.amazonaws.com/tastytradepublicmedia/show/123/episode/34745/slide_decks/en/OJ_GuideToTradingEarnings_170427.pdf?1493306759

Normal Pricing Skew - Most Stocks

PUTs more expensive
than CALLs



Reverse Pricing Skew - GLD

