Cherry Picks

tastytrade's Quantitative Newsletter for Traders

June 5, 2018

Options involve risk and are not suitable for all investors. Please read Characteristics and Risks of Standardized Options before deciding to invest.

Largest Price Drawdowns by Year

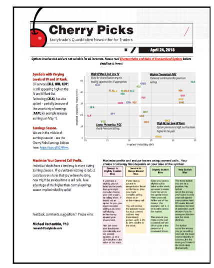
A pretty common way (within quantitative finance) of accessing the riskiness of a stock or ETF is to examine its "Maximum Drawdown". This looks at price declines from *peak-to-trough*. In other words, in 2008, had you bought shares of SPY at its highest point, its subsequent low was -48% lower. In 2017, the most you would have been down at any given time had you bought shares was -3%. See below for drawdowns by year:

Largest Price Drawdown by Year				
Year	S&P 500 (SPY)	Russell 2000 (IWM)	Dow Jones (DIA)	Bonds (TLT)
2005	-7%	-12%	-9%	-9%
2006	-8%	-14%	-8%	-11%
2007	-10%	-14%	-10%	-9%
2008	-48%	-49%	-42%	-9%
2009	-27%	-33%	-27%	-24%
2010	-16%	-20%	-14%	-16%
2011	-19%	-29%	-17%	-10%
2012	-10%	-13%	-9%	-10%
2013	-6%	-6%	-6%	-18%
2014	-8%	-13%	-7%	-5%
2015	-12%	-17%	-14%	-17%
2016	-9%	-14%	-9%	-19%
2017	-3%	-6%	-3%	-5%
2018	-10%	-9%	-12%	-8%

For context, we're currently down 6% in the S&P 500 from highs made in January, down 0% in the Russell (we're currently at highs), in the Dow Jones we're down 4% from highs, and finally in bonds we're down roughly 5% from yearly highs made also in January.

How Can You Protect Yourself Against Possible Drops?

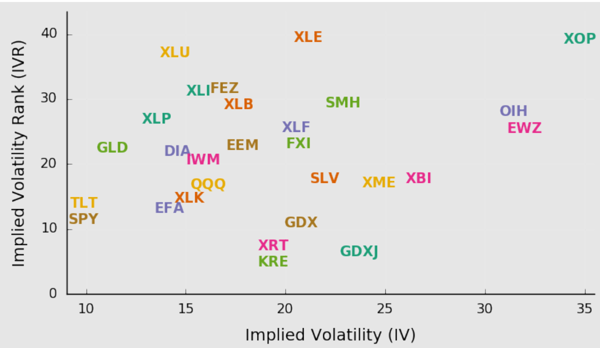
- **Covered Calls.** We like to sell calls against positions held – yes, it does cap your potential profits, but over time, the amount that you make on the calls lower your overall breakevens. How do I chose my call? I've got a nice writeup here: https://goo.gl/ttfqWs



- **Short Puts.** Consider a short put below the market (as opposed to being long shares). Right now in SPY, with the market near 275, the 267 short put brings in over $2 of extrinsic value. This allows you to make a profit even if the market drops by near 4%.
- **Collars.** *Generally we avoid collars.* But if you do want to use them, consider a "cashless collar". This is where you are long 100 shares of stock, write a call against the position held and then purchase a put that is done for considerably less then the amount you make on the call. For example, long 100 shares of SPY, short a 30 delta, 280 strike call for $1.45 and then purchase a 258 put for $1. This brings you upside potential, a little bit of theta decay, and caps your loss at 6%. *Over time, you're almost guaranteed to underperform the market, but if you need the protection…*
- **Consider Exiting.** If a crash is keeping you up at night, causing heartburn, etc. then perhaps consider exiting the position.

Lagniappe Graphic.

For all my Louisiana brethren, I've included some *lagniappe*, cajun for, "a little something extra". Stocks in the top right have the best "bang for the buck."



Write with questions, Tom sightings, etc.

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Upcoming Earnings

Symbol	Description	Expected Report Date	Time of Day	Weekly Options	In S&P 500?	In tastytrade Watchlist?	DivYield
AVGO	Broadcom Ltd	Thu Jun-07	After Close	Yes	Yes	-	1.67%
HRB	H&R Block	Tue Jun-12	After Close	-	Yes	-	3.62%
FDX	Fedex Corp	Tue Jun-19	After Close	Yes	Yes	-	0.87%
ADBE	Adobe Systems Inc	Tue Jun-19	n/a	Yes	Yes	-	0
LEN	Lennar Corp	Tue Jun-19	n/a	-	Yes	-	0.28%
MU	Micron Technology	Wed Jun-20	After Close	Yes	Yes	-	0
ORCL	Oracle Corp	Wed Jun-20	n/a	Yes	Yes	Yes	1.52%

Historical Earnings Moves for Select Stocks

It is often nice to examine historical moves in stocks around earnings. At the very least, it provides some context.

	Historical Price Move From Immediately Before Earnings to that Friday's Expiration											
	4th Q 2017	3rd Q 2017	2nd Q 2017	1st Q 2017	4th Q 2016	3rd Q 2016	2nd Q 2016	1st Q 2016	4th Q 2015	3rd Q 2015	2nd Q 2015	1st Q 2015
AVGO	-5%	-2%	-4%	8%	1%	5%	-2%	5%	6%	12%	10%	4%
HRB	7%	4%	-8%	11%	14%	-2%	-11%	12%	-16%	-13%	7%	-2%
FDX	-9%	3%	2%	3%	-2%	-3%	7%	-8%	13%	-1%	-6%	-3%
ADBE	3%	1%	-5%	3%	4%	-1%	7%	-8%	4%	3%	1%	0%
LEN	8%	4%	6%	-1%	-3%	0%	-4%	-4%	2%	-2%	0%	6%
MU	-8%	0%	15%	-5%	7%	13%	-1%	-9%	5%	-1%	8%	-18%
ORCL	-14%	-4%	-8%	10%	6%	-4%	-5%	3%	7%	-7%	-5%	-7%

Shows From the Research Department Over The Past Few Days:

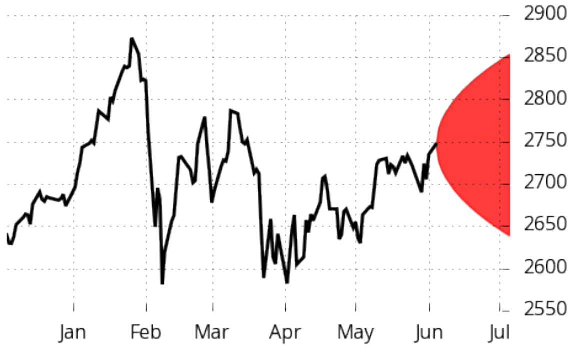
Date	Segment	Title	Link
Fri, Jun 01	Market Measures	The Impact of Volatility on P/L	LINK
Fri, Jun 01	Resize & Analyze	Week of May 28th	LINK
Fri, Jun 01	Closing the Gap - Futures Edition	Crude Futures Volatility in Play	LINK
Thu, May 31	Market Measures	Is Options Trading Independent?	LINK
Thu, May 31	Options Jive	Average Daily P/L & Theta	LINK
Thu, May 31	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK
Wed, May 30	Market Measures	Managing Winners - Theta	LINK
Wed, May 30	Options Jive	Is There a Trade? Week of May 28th	LINK
Wed, May 30	Options Jive	What is tastytrade Trading? Commodities & Currencies	LINK
Tue, May 29	Market Measures	Comparing Flights to Quality	LINK
Tue, May 29	Options Jive	Should We Consider Leveraged ETFs?	LINK
Tue, May 29	Best Practices	Gamma Over Time	LINK
Fri, May 25	Market Measures	Directional Trading with Naked Options	LINK
Fri, May 25	Resize & Analyze	Week of May 21st	LINK
Fri, May 25	Closing the Gap - Futures Edition	Options Settlement of Equity Futures	LINK
Thu, May 24	Market Measures	When to Scalp Stock	LINK
Thu, May 24	Options Jive	Impact of Time	LINK
Thu, May 24	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK
Wed, May 23	Market Measures	Pushing the Limit - Managing Winners	LINK
Wed, May 23	Options Jive	Is There a Trade?	LINK
Wed, May 23	Options Jive	What's tastytrade Trading?	LINK
Tue, May 22	Market Measures	Wide Iron Condors - Managing Winners	LINK
Tue, May 22	Options Jive	Overcompensating for Something	LINK
Tue, May 22	tasty BITES	Dynamic Iron Flys	LINK
Mon, May 21	Market Measures	How to Trade Currency Options	LINK
Mon, May 21	The Skinny on Options: Abstract Applications	Biased Probabilities	LINK
Mon, May 21	tasty BITES	Reducing BPR: Iron Fly vs Straddle	LINK
Fri, May 18	Market Measures	Ultimate Guide to Managing Straddles	LINK
Fri, May 18	Resize & Analyze	Week of May 14th	LINK
Fri, May 18	Closing the Gap - Futures Edition	Interest Rates, the Dollar, and Commodities	LINK
Thu, May 17	Market Measures	Pushing the Limit - Capital Allocation	LINK
Thu, May 17	tasty Extras	Stock or Options | Choose Your Own Direction	LINK
Thu, May 17	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK

Current Market Outlook

30-Day Expected Range Plots – The colored cone represents a 30-day expected theoretical price range that is calculated from the options' implied volatilities. In theory, we expect that prices will stay, with a 68% probability, within the boundary of the cone.

S&P500INDEX
IV: 13
IV Rank: 12 (Low)
Estimated Liquidity: Great
Correlation with S&P 500: 1.0

SPX



iShares 20+ Year Treasury Bond ETF
IV: 9
IV Rank: 11 (Low)
Estimated Liquidity: Great
Correlation with S&P 500: -0.27

TLT

iShares Russell 2000 ETF
IV: 15
IV Rank: 18 (Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.86

IWM

Guggenheim CurrencyShares Euro Currency Trust
IV: 7
IV Rank: 54 (Moderately High)
Estimated Liquidity: Good
Correlation with S&P 500: 0.1

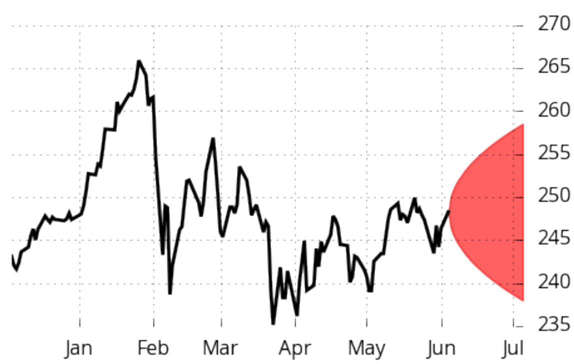
FXE

Invesco QQQ Trust, Series 1
IV: 15
IV Rank: 14 (Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.94

QQQ

SPDR Dow Jones Industrial Average ETF
IV: 14
IV Rank: 20 (Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.95

DIA



Current ETF Watchlist

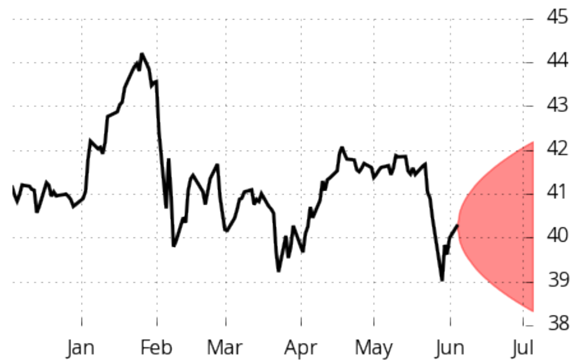
30-Day Expected Range Plots – The colored cone represents a 30-day expected theoretical price range that is calculated from the options' implied volatilities. In theory, we expect that prices will stay, with a 68% probability, within the boundary of the cone.

SPDR Select Sector Fund Utilities
IV: 14
IV Rank: 36 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.23

XLU

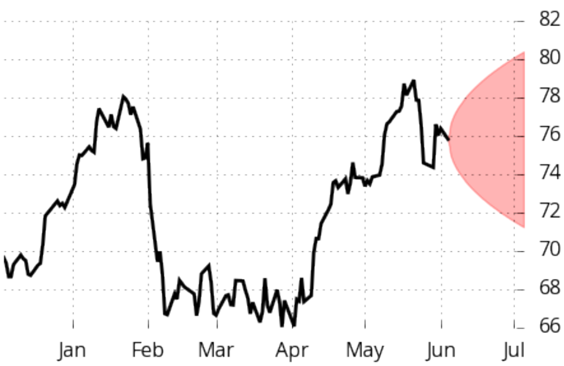
SPDR DJ Euro STOXX 50 Etf
IV: 16
IV Rank: 30 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.76

FEZ



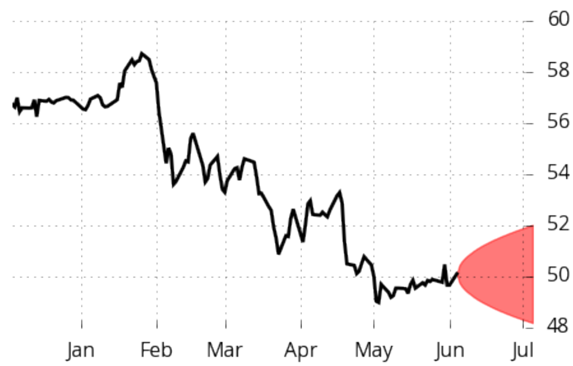
SPDR Select Sector Fund Energy Select Sector
IV: 20
IV Rank: 39 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.66

XLE



SPDR Select Sector Fund Consumer Staples
IV: 13
IV Rank: 25 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.75

XLP



SPDR S&P Oil & Gas Explor & Product
IV: 34
IV Rank: 39 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.54

XOP

iShares MSCI Emerging Index Fund
IV: 17
IV Rank: 22 (Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.77

EEM

30-Day Expected Range Plots – The colored cone represents a 30-day expected theoretical price range that is calculated from the options' implied volatilities. In theory, we expect that prices will stay, with a 68% probability, within the boundary of the cone.

General Electric
IV: 35
IV Rank: 60 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.25
Earnings: Fri, Jul 20, 2018

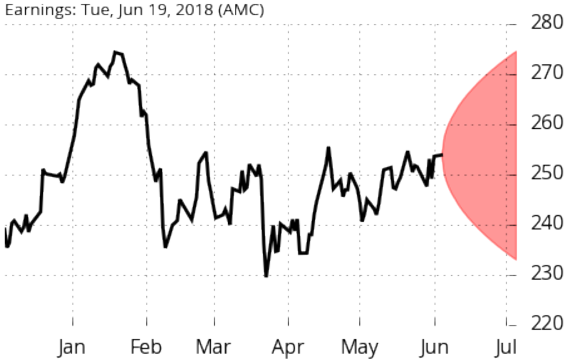
GE

Intel
IV: 25
IV Rank: 45 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.79
Earnings: Thu, Jul 26, 2018

INTC

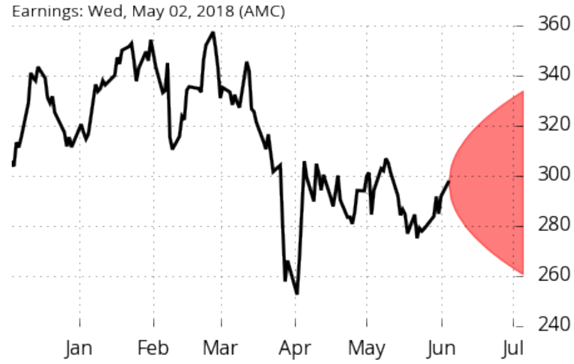
FedEx
IV: 28
IV Rank: 32 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.72
Earnings: Tue, Jun 19, 2018 (AMC)

FDX



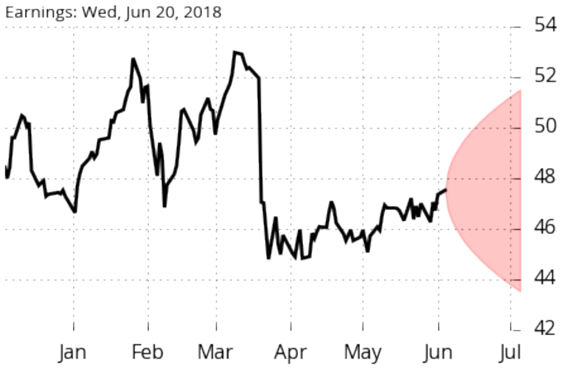
Tesla,
IV: 42
IV Rank: 26 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.5
Earnings: Wed, May 02, 2018 (AMC)

TSLA



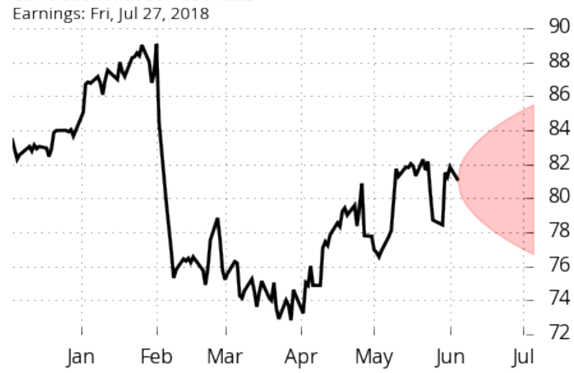
Oracle
IV: 28
IV Rank: 43 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.79
Earnings: Wed, Jun 20, 2018

ORCL



Exxon Mobil
IV: 18
IV Rank: 43 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.62
Earnings: Fri, Jul 27, 2018

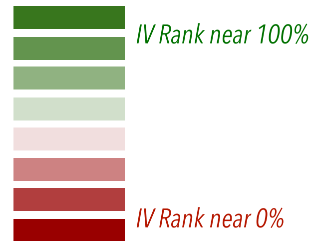
XOM



Reading this Report

Expected Range Cone. The colored cone represents a 30-day expected theoretical price range that is calculated from the options' implied volatilities. If the implied volatility is relatively high, then the market is expecting a larger price change in the underlying stock or ETF. From this we can derive the market's 1 standard deviation theoretical expectation of where prices might be in the future. In other words, the market is expecting, with a 68% theoretical probability, that prices will fall within the boundary of the cone at the end of 30 days.

Cone Color. The color of the cone is significant. The darker the color, the more "extreme" the implied volatility (IV) which is represented by implied volatility rank (IV Rank). This information can help you decide on a trading strategy.



Glossary

IV. Implied Volatility is the estimated volatility of a security's price derived from its option price; the higher the IV, the more expensive the option and therefore the larger the expected price move. IV is an annualized number of volatility, e.g. a IV of 27 means the option's market is pricing in an annualized price range, either plus or minus, of 27%.

IV Rank. IV by itself doesn't tell us if if the volatility is high or low - but IV Rank does. An IV Rank of 70 means that the IV is 70% between its low and high IV over the past year. The higher the IV Rank, the higher the security's IV is compared to its past year. We provide six levels to make evaluating easier:

- **Extremely High:** IV Rank between 90 and 100
- **High:** IV Rank between 75 and 90
- **Moderately High:** IV Rank between 50 and 75
- **Moderately Low:** IV Rank between 25 and 50
- **Low:** IV Rank between 10 and 25
- **Extremely Low:** IV Rank between 0 and 10

Option Liquidity. At tastytrade we have our own theoretical measure of option liquidity, Poor, Moderate, Good, or Great. It examines the options' bid/ask spread, open interest, and the number of strikes with non-zero bids.

Correlation with S&P 500. Correlation is a statistical measure of how strong a relationship two securities have with one another. A correlation of -1 means the stocks are perfectly negatively correlated (they move in opposite directions), while a correlation of +1 means the stocks are perfectly positively correlated (they move in the same direction). A correlation of 0 means there exist little relationship.

Earnings. The earnings date of the security. In practice we tend to see stocks have a larger amount of implied volatility (IV) nearer to earnings as the market is pricing in the fear of the upcoming earnings announcement. In parenthesis, is BTO or AMC; "Before the Open" or "After Market Closes", respectively. Upcoming earnings dates do sometimes change.

Disclosures

Options involve risk and are not suitable for all investors. Please read Characteristics and Risks of Standardized Options before deciding to invest in options: https://www.theocc.com/components/docs/riskstoc.pdf

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