



Cherry Picks

tastytrade's Quantitative Newsletter for Traders

March 20, 2018

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

IV and IV Rank: 3-Months Ago and Now.

The bottom of the page shows the *movement* of implied volatility (IV) and implied volatility rank (IV Rank) for select ETFs from 3 months ago to today.

Look also at the table on the right. Compared to 3 months ago (December 18), you'll get paid more now to take on the risk of being an option seller. Three-months ago, you would have received \$1.90 by selling an ATM put in QQQ with a month until expiration. Today you'll get roughly \$3.40 for the expiration in April, an increase of 77%.

What's Got Our Eyes...

Check out Facebook (**FB**) – huge decline of 7% based on some poor news. Is it a steal down here? I'll tell you in a year. Keep in mind that Facebook was at this exact level back in February, and then again in December 2017, and October, September, August and July. With an IV of 30 and an IV Rank of 64, *options aren't cheap, but for the risk involved, I think we can find better play.*

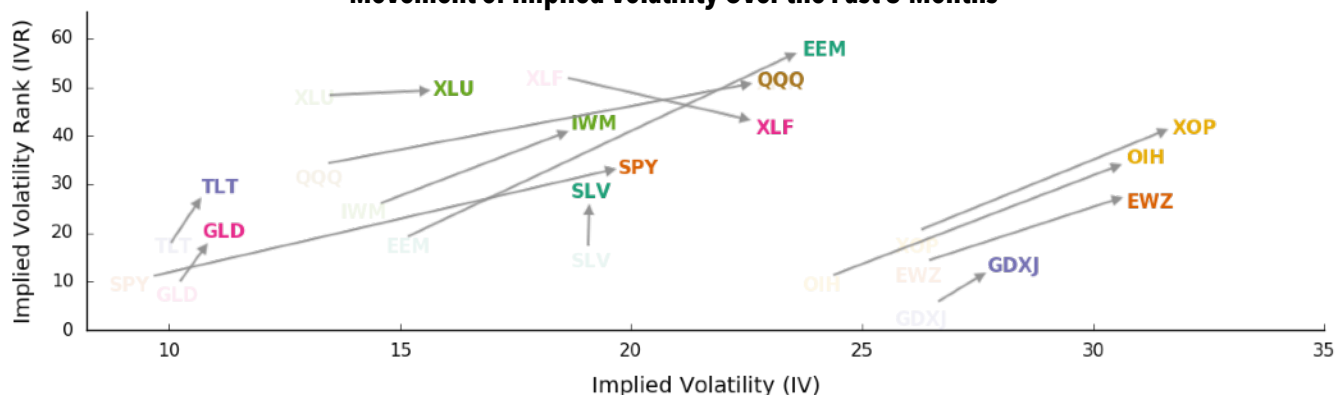
Generally in higher implied volatility moments, like we are now, there is plenty of opportunity in the ETFs. Take a look at **EEM**, **IWM**, **QQQ**, **XLU**, **SPY**, and **XRT**.

Michael Rechenhain, PhD
Kai Zeng
research@tastytrade.com

Option Price Percentage Increase From 3-Months Ago

Symbol	Description	Increase
QQQ	Nasdaq	77%
EEM	Emerging Markets	60%
IWM	Russell 2000	36%
OIH	Oil Services	29%
XLF	Financials	28%
XLU	Utilities	23%
XOP	Oil and Nat. Gas Production	23%
EWZ	Brazil	19%
GLD	Gold	10%
TLT	Bonds	10%
GDXJ	Gold Miners	8%
SLV	Silver	0%

Movement of Implied Volatility Over the Past 3-Months



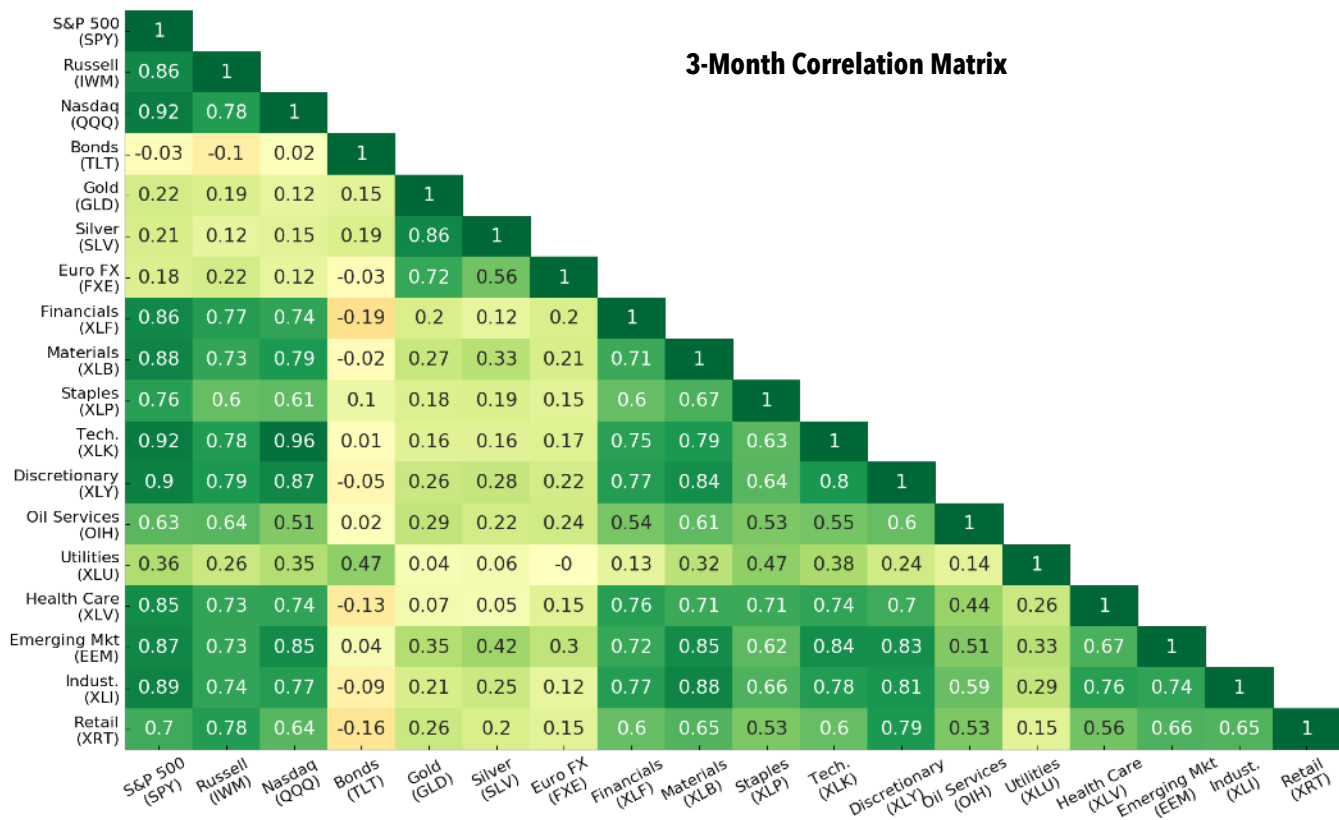


/RTY 3.2%	/ZC 2.6%	/CL 2.1%	/NQ 1.8%	/NG 1.4%	/6J 1.2%	/ZW 1.0%
/6B 0.5%	/ES 0.4%	/UB 0.4%	/6E 0.1%	/ZB -0.0%	/ZS -0.1%	/ZT -0.3%
/ZF -0.3%	/ZN -0.3%	/YM -1.0%	/SI -1.2%	/GC -1.6%	/6A -2.1%	/6C -3.2%

NRG 17.4%	PCG 11.2%	EIX 6.2%	SCG 5.9%	SRE 4.5%	ETR 4.1%	NEE 4.0%
AES 3.6%	FE 3.0%	AWK 2.1%	DUK 1.8%	LNT 1.8%	AEP 1.6%	SO 1.6%
WEC 1.4%	CMS 1.4%	EXC 1.4%	NI 1.0%	ED 0.9%	CNP 0.8%	PNW 0.7%
AEE 0.2%	XEL 0.1%	PEG 0.0%	ES -0.2%	DTE -1.0%	D -7.5%	PPL -11.1%

INTC 9.7%	CVX 2.6%	AAPL 2.0%	IBM 1.4%	MCD 1.2%	V 1.0%
PFE 0.9%	TRV 0.7%	UTX 0.6%	CSCO 0.5%	MSFT 0.2%	JPM -0.2%
JNJ -0.5%	MRK -0.6%	UNH -0.7%	GS -0.9%	VZ -1.2%	MMM -1.5%
KO -1.7%	XOM -2.1%	CAT -2.2%	AXP -2.4%	NKE -2.6%	PG -3.3%
DIS -4.2%	GE -4.5%	HD -5.1%	BA -6.1%	DWDP -7.1%	WMT -7.1%

IWM 3.1%	FXI 1.6%	XLK 1.5%	QQQ 1.5%	KRE 1.4%	XBI 1.2%	XLU 1.0%	TLT 0.7%	EEM 0.6%
XOP 0.1%	SPY -0.0%	GDXJ -0.3%	XLF -0.4%	XLI -0.7%	FEZ -0.8%	OIH -0.8%	EFA -1.1%	DIA -1.1%
SLV -1.5%	GLD -1.5%	XLE -1.6%	XRT -2.0%	GDX -2.4%	XLP -2.7%	XLB -3.2%	EWZ -3.4%	XME -5.0%





Upcoming Earnings

Symbol	Description	Expected Report Date	Time of Day	Weekly Options	In Dow?	In S&P 500?	In Russell 2000?	In tastytrade Watchlist?
FDX	FedEx	Tue Mar-20	After Close	Yes	-	Yes	-	-
GIS	General Mills	Wed Mar-21	Before Open	-	-	Yes	-	-
KBH	KB Home	Thu Mar-22	After Close	-	-	-	Yes	-
NKE	Nike	Thu Mar-22	After Close	Yes	Yes	Yes	-	-
MU	Micron Technology	Thu Mar-22	After Close	Yes	-	Yes	-	-
WBA	Walgreens Boots Alliance	Wed Mar-28	Before Open	Yes	-	Yes	-	-

* Highlighted the stocks from our tastytrade watchlist

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.

Symbol	Historical Price Move From Immediately Before Earnings to that Friday's Expiration										
	3rd Q	2nd Q	1st Q	4th Q	3rd Q	2nd Q	1st Q	4th Q	3rd Q	2nd Q	1st Q
	2017	2017	2017	2016	2016	2016	2016	2015	2015	2015	2015
FDX	3%	2%	3%	-2%	-3%	7%	-8%	13%	-1%	-6%	-3%
GIS	4%	-7%	0%	-2%	-1%	0%	9%	1%	-4%	1%	2%
KBH	8%	9%	5%	2%	-2%	5%	2%	6%	-15%	0%	9%
MU	0%	15%	-5%	7%	13%	-1%	-9%	5%	-1%	8%	-18%
NKE	-2%	-3%	11%	-3%	0%	-5%	5%	-5%	-4%	9%	4%
WBA	-3%	-4%	2%	0%	0%	6%	-2%	-6%	2%	-11%	8%

Stocks and ETFs with an **upcoming dividend**.

In the money short call options are the only options at risk of additional early assignment due to the dividend. If the extrinsic value of the in the money short call is less than the dividend, the option is at (a greater than average) risk of being assigned.

Symbol	Description	Ex-Dividend Date	Dividend Per Share	In Dow?	In S&P 500?	In Russell 2000?	In tastytrade Watchlist?
AVGO	Broadcom Limiteds	Wed, Mar 21	1.75	-	Yes	-	-
BBY	Best Buy Co.	Wed, Mar 21	0.45	-	Yes	-	-
LVS	Las Vegas Sands Corp.	Wed, Mar 21	0.75	-	-	-	-
DSW	DSW	Thu, Mar 22	0.25	-	-	Yes	-
RL	Ralph Lauren	Wed, Mar 28	0.5	-	Yes	-	-
MRVL	Marvell Technology Group Ltd.	Wed, Mar 28	0.06	-	-	-	-
DE	Deere &	Wed, Mar 28	0.6	-	Yes	-	-
ATVI	Activision Blizzard	Wed, Mar 28	0.34	-	Yes	-	-

March 22 Dividend also in: IWM, DVY, IYR, JKE, JKF, IVV



Shows From the Research Team The Past Few Days:

Date	Segment	Title	Link
Mon, Mar 19	Market Measures	Wide Iron Condors: Max Loss Expectations	LINK
Mon, Mar 19	The Skinny on Options: Abstract Applications	The Lognormal Distribution	LINK
Mon, Mar 19	Best Practices	Synthetics Advantage	LINK
Fri, Mar 16	Market Measures	VIX Expected Moves and POT	LINK
Fri, Mar 16	Resize & Analyze	Week of March 12th	LINK
Fri, Mar 16	Closing the Gap - Futures Edition	Triple Witching: Time to Roll Equity Futures	LINK
Thu, Mar 15	Market Measures	Trade Defense: Rolling Untested Sides	LINK
Thu, Mar 15	Options Jive	Defending Trades	LINK
Thu, Mar 15	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK
Wed, Mar 14	Market Measures	The Nature of Managing Losers	LINK
Wed, Mar 14	The Skinny on Options: Abstract Applications	The Law of Large Numbers	LINK
Wed, Mar 14	Options Jive	Is There a Trade? Week of March 12th	LINK
Tue, Mar 13	Market Measures	Implied Volatility: Gold vs. Equities	LINK
Tue, Mar 13	Options Jive	Translating Stock Movement to Options	LINK
Tue, Mar 13	tasty BITES	Holding to Expiration	LINK
Mon, Mar 12	Market Measures	Diversification Options in High IV Rank	LINK
Mon, Mar 12	Best Practices	The Speed of Delta	LINK
Fri, Mar 09	Market Measures	Trade Defense: Exit or Do Nothing?	LINK
Fri, Mar 09	Resize & Analyze	Week of March 5th	LINK
Fri, Mar 09	Closing the Gap - Futures Edition	Soybeans & Corn: It's Planting Time	LINK
Thu, Mar 08	Market Measures	IV Rank and Stock Movement	LINK
Thu, Mar 08	Options Jive	Adjusting Probabilities by Rolling	LINK
Thu, Mar 08	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK
Wed, Mar 07	Market Measures	Market Premium: Historical & Current	LINK
Wed, Mar 07	Options Jive	Is There a Trade? Week of March 5th	LINK
Wed, Mar 07	tasty BITES	How Can Iron Condors Make Money?	LINK
Tue, Mar 06	Market Measures	Managing Winners Varying Durations	LINK
Tue, Mar 06	Options Jive	Market Corrections	LINK
Tue, Mar 06	Best Practices	Delta Review	LINK
Mon, Mar 05	Market Measures	GDP Growth Compared to the Market	LINK
Mon, Mar 05	The Skinny on Options: Abstract Applications	The Central Limit Theorem	LINK
Mon, Mar 05	tasty Extras	A Special Announcement	LINK



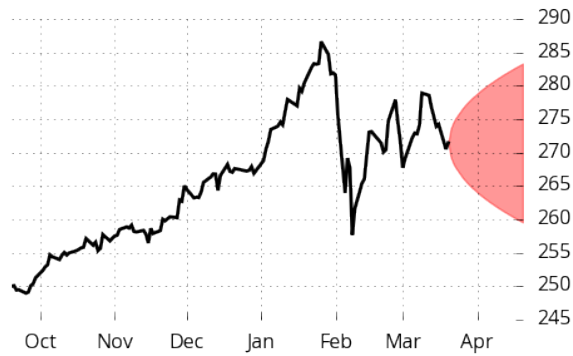
Current Market Outlook



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.

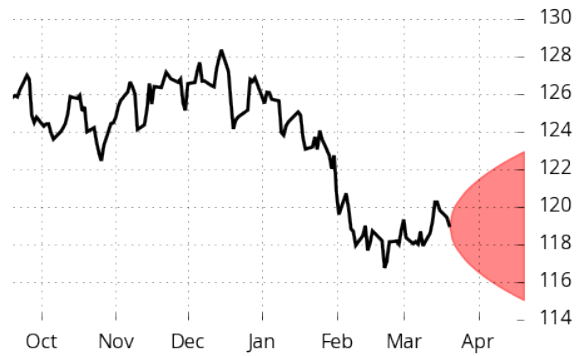
SPDR S&P 500
IV: 15
IV Rank: 32 (Moderately Low)
Estimated Liquidity: Great

SPY



iShares 20+ Year Treasury Bond ETF
IV: 11
IV Rank: 29 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: -0.05

TLT



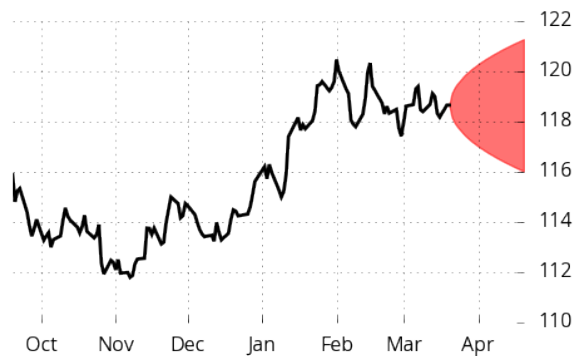
iShares Russell 2000 ETF
IV: 20
IV Rank: 41 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.86

IWM



Guggenheim CurrencyShares Euro Currency Trust
IV: 7
IV Rank: 24 (Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.19

FXE



PowerShares QQQ Trust, Series 1
IV: 23
IV Rank: 50 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.92

QQQ



SPDR Dow Jones Industrial Average ETF
IV: 20
IV Rank: 47 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.91

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 S&P Metals & Mining ETF
IV: 31
IV Rank: 30 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.51

XME



SPDR Series Trust SPDR S&P Biotech ETF
IV: 28
IV Rank: 28 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.68

XBI



SPDR Select Sector Fund Technology
IV: 23
IV Rank: 59 (Moderately High)
Estimated Liquidity: Good
Correlation with S&P 500: 0.92

XLK



iShares MSCI Emerging Index Fund
IV: 22
IV Rank: 56 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.87

EEM



SPDR Select Sector Fund Utilities
IV: 16
IV Rank: 49 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.34

XLU



iShares Inc iShares MSCI Brazil ETF
IV: 31
IV Rank: 26 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.72

EWZ

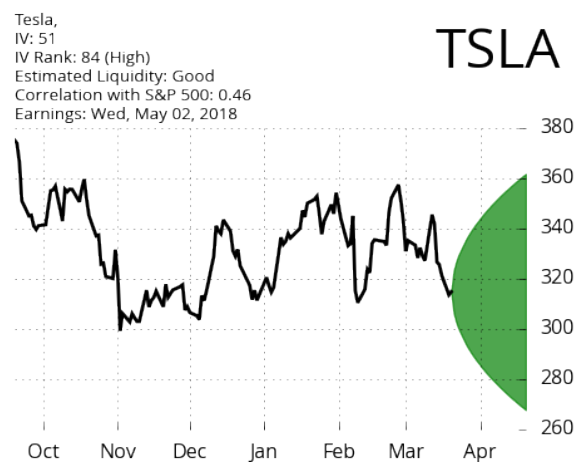
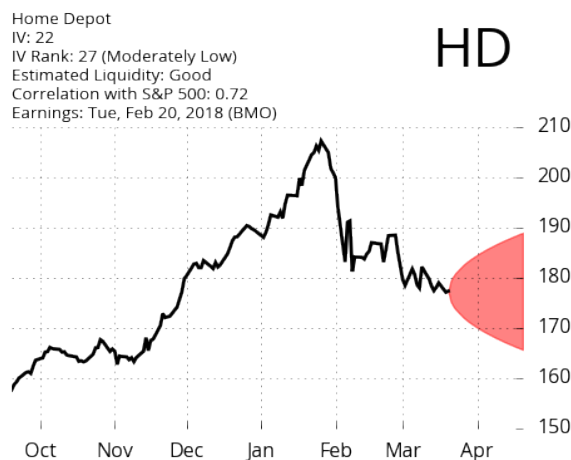
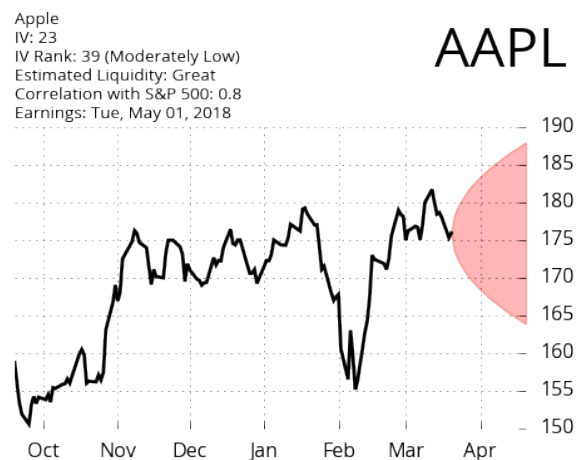
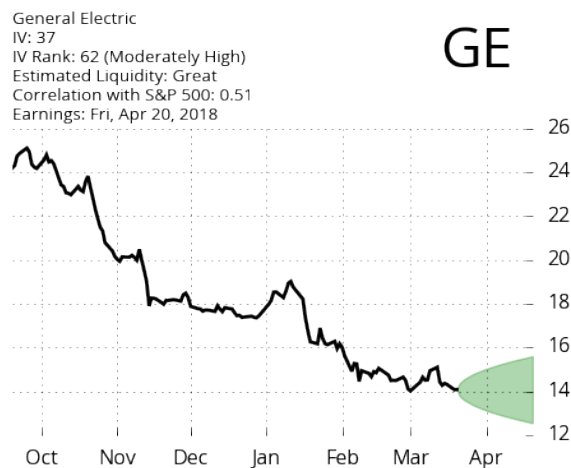
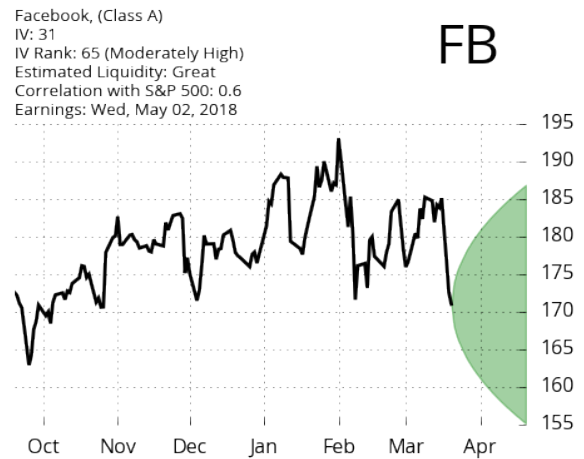
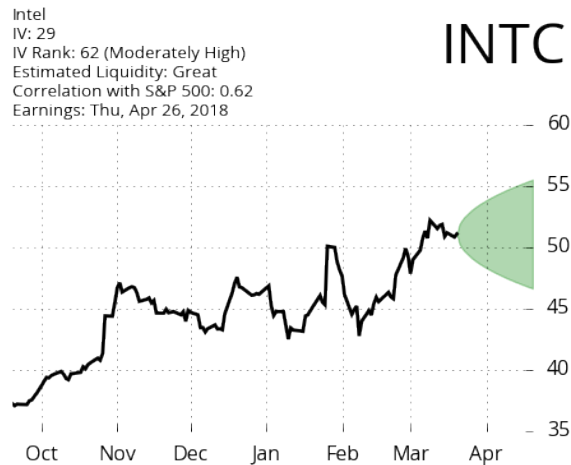




Current Stock Watchlist



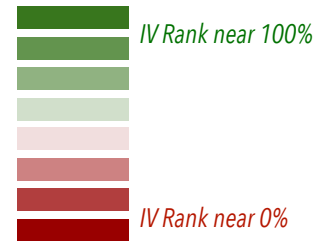
30-Day Expected Range Plots – The colored cone represents a 30-day expected theoretical price range that is calculated from the options' implied volatilities. In theory, we expect that prices will stay, with a 68% probability, within the boundary of the cone.



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 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>

tastytrade content is provided solely by tastytrade, Inc. and is for informational and educational purposes only. It is not, nor is it intended to be, trading or investment advice or a recommendation that any security, futures contract, transaction or investment strategy is suitable for any person. Trading securities can involve high risk and the loss of any funds invested. tastytrade, through its content, financial programming or otherwise, does not provide investment or financial advice or make investment recommendations. Investment information provided may not be appropriate for all investors, and is provided without respect to individual investor financial sophistication, financial situation, investing time horizon or risk tolerance. tastytrade is not in the business of transacting securities trades, nor does it direct client commodity accounts or give commodity trading advice tailored to any particular client's situation or investment objectives. Supporting documentation for any claims (including claims made on behalf of options programs), comparison, statistics, or other technical data, if applicable, will be supplied upon request. Multi-leg option strategies incur higher transaction costs as they involve multiple commission charges. tastytrade is not a licensed financial advisor, registered investment advisor, or a registered broker-dealer. Options involve risk and are not suitable for all investors. Please read Characteristics and Risks of Standardized Options before deciding to invest in options.

Futures accounts are not protected by the Securities Investor Protection Corporation (SIPC). All customer futures accounts' positions and cash balances are segregated by Apex Clearing Corporation. Futures and futures options trading is speculative and is not suitable for all investors. Please read the Risk Disclosure for Futures and Options prior to trading futures products found in Disclosures under the Documents tab.