



Cherry Picks

tastytrade's Quantitative Newsletter for Traders

March 27, 2018

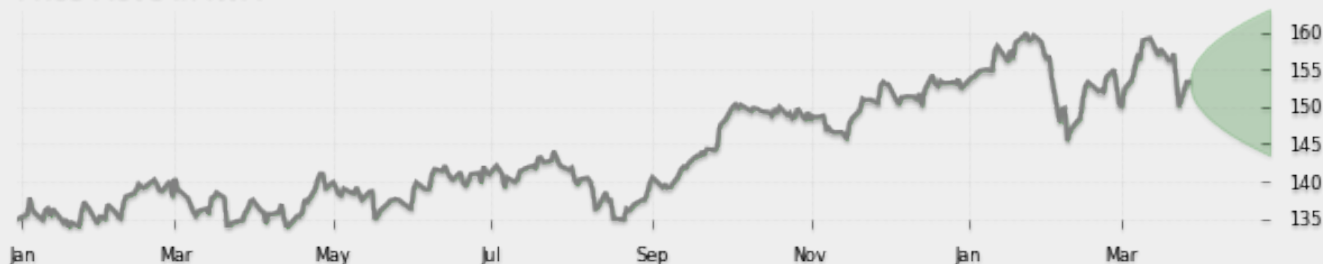
Options involve risk and are not suitable for all investors. Please read [Characteristics and Risks of Standardized Options](#) before deciding to invest.

Expected Move Charts

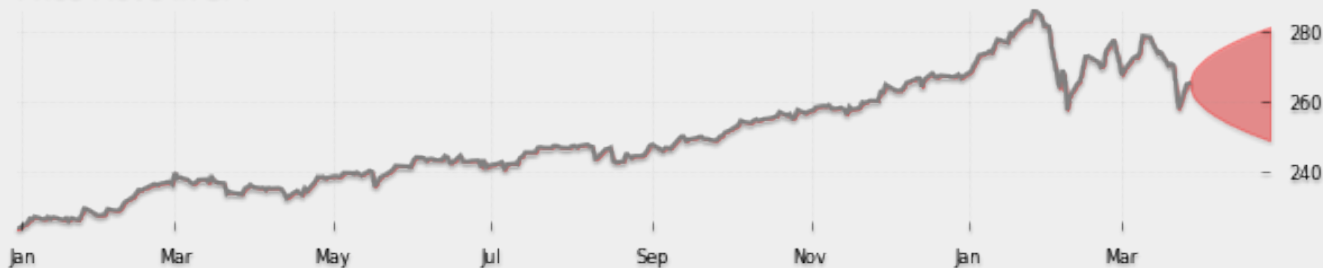
The following charts show the 52-day theoretical expected price move in 3 popular indices. We wrote about what each of the colors represent in the Cherry Picks from October 31 – see that edition [here](#).

Michael Rechenthin, PhD
Kai Zeng

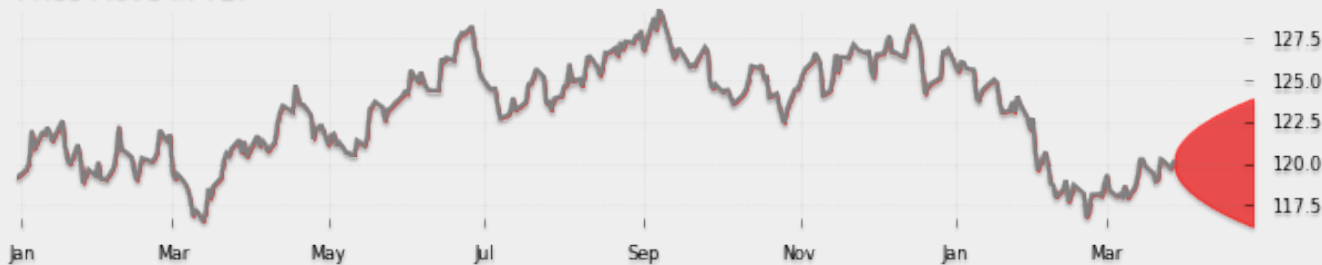
52-Day Theoretical Expected
Price Move in IWM



52-Day Theoretical Expected
Price Move in SPY



52-Day Theoretical Expected
Price Move in TLT





Market Statistics



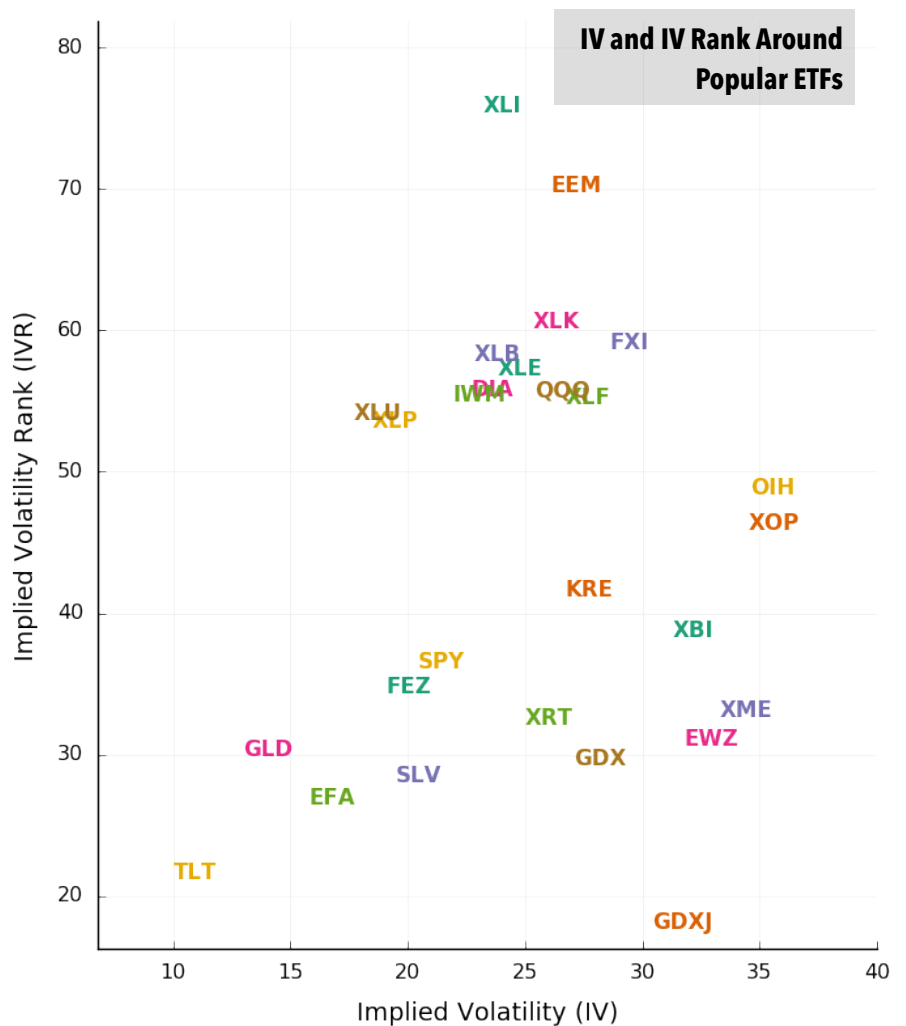
1 Month Returns of Futures

/CL 3.0%	/UB 1.5%	/6J 1.5%	/6B 1.4%	/GC 1.1%	/6E 1.1%	/ZB 1.0%
/ZN 0.2%	/NG 0.1%	/ZF 0.0%	/ZT -0.0%	/SI -0.2%	/ZC -0.3%	/RTY -0.8%
/6C -1.3%	/6A -1.7%	/ZS -1.8%	/NQ -2.6%	/ZW -3.9%	/ES -4.2%	/YM -5.7%

1 Month Returns of Dow Stocks

INTC 8.0%	CVX 1.0%	MSFT -0.9%	CSCO -2.2%	IBM -2.9%	MCD -3.0%
KO -3.0%	AAPL -3.1%	TRV -3.1%	V -3.3%	JNJ -3.5%	VZ -3.7%
MRK -4.0%	PFE -5.1%	NKE -5.5%	GS -5.6%	UNH -5.6%	WMT -5.8%
XOM -5.9%	HD -6.0%	UTX -6.2%	PG -6.2%	JPM -6.5%	DIS -8.2%
CAT -8.2%	AXP -8.6%	BA -8.7%	MMM -8.8%	GE -11.7%	DWDP -12.2%

DIA	Dow
EEM	Emerging Index Fund
EFA	MSCI EAFE
EWZ	Brazil
FEZ	Euro Stoxx 50
FXI	China Large Cap
GDX	Gold Miners
GDXJ	Junior Gold Miners
GLD	Gold
IWM	Russell 2000 ETF
KRE	Regional Banking
OIH	Oil Services
QQQ	Nasdaq 100
SLV	Silver
SPY	S&P 500
TLT	20+ Year Treasury Bond ETF
XBI	Biotech
XLB	Materials
XLE	Energy Select Sector
XLF	Financial
XLI	Industrial
XLK	Tech
XLP	Consumer Staples
XLU	Utilities
XME	Metals and Mining
XOP	Oil & Gas Exploration & Product
XRT	Retail





Upcoming Earnings

Symbol	Description	Expected Report Date	Time of Day	Weekly Options	In Dow?	In S&P 500?	In Russell 2000?	In tastytrade Watchlist?
SONC	Sonic Corp.	Tue Mar-27	After Close	-	-	-	Yes	-
WBA	Walgreens Boots Alliance	Wed Mar-28	Before Open	Yes	-	Yes	-	-
PVH	PVH Corp.	Wed Mar-28	After Close	-	-	Yes	-	-
KMX	CarMax Inc	Wed Apr-04	Before Open	Yes	-	Yes	-	-
MON	Monsanto	Wed Apr-04	n/a	Yes	-	Yes	-	-
LEN	Lennar (Class A)	Mon Apr-09	n/a	-	-	Yes	-	-

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
MON	1%	0%	1%	2%	3%	2%	0%	0%	-5%	2%	-7%
KMX	-5%	8%	4%	0%	3%	-4%	-9%	0%	-4%	-6%	-5%
LEN	4%	6%	-1%	-3%	0%	-4%	-4%	2%	-2%	0%	6%
PVH	0%	5%	3%	11%	-3%	-1%	5%	8%	-12%	5%	9%
SONC	2%	1%	2%	6%	5%	-13%	-9%	9%	-3%	4%	-13%
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?
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	-	-
ABB	ABB Ltd	Wed, Apr 04	0.517	-	-	-	-
CSCO	Cisco Systems	Wed, Apr 04	0.33	Yes	Yes	-	-
JPM	JP Morgan Chase & Co.	Thu, Apr 05	0.56	Yes	Yes	-	-
AXP	American Express	Thu, Apr 05	0.35	Yes	Yes	-	-
BMJ	Bristol-Myers Squibb	Thu, Apr 05	0.4	-	Yes	-	-
MON	Monsanto	Thu, Apr 05	0.54	-	Yes	-	-
MA	Mastercard	Fri, Apr 06	0.25	-	Yes	-	-
DRI	Darden Restaurants	Mon, Apr 09	0.63	-	Yes	-	-
GIS	General Mills	Mon, Apr 09	0.49	-	Yes	-	-
VZ	Verizon Communications	Mon, Apr 09	0.59	Yes	Yes	-	-
INTU	Intuit	Mon, Apr 09	0.39	-	Yes	-	-

April 2 ETF dividends

HYD, BWX, JNK



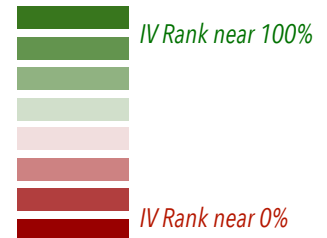
Shows From the Research Team The Past Few Days:

Date	Segment	Title	Link
Mon, Mar 26	Market Measures	Managing Winners + Losers	LINK
Mon, Mar 26	The Skinny on Options: Abstract Applications	Return Dynamics	LINK
Mon, Mar 26	Best Practices	Intrinsic & Extrinsic	LINK
Fri, Mar 23	Market Measures	Guide to Pairs Trading Stock Indexes	LINK
Fri, Mar 23	Resize & Analyze	Week of March 19th	LINK
Fri, Mar 23	Closing the Gap - Futures Edition	Crude: Through the Lens of FX	LINK
Thu, Mar 22	Market Measures	Short VIX Strategies: Varying Timeframes	LINK
Thu, Mar 22	Strategies for IRA	Condors in an IRA	LINK
Thu, Mar 22	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK
Wed, Mar 21	Market Measures	Managing Winners or Losers - Volatility Comparison	LINK
Wed, Mar 21	Options Jive	Is There a Trade? Week of March 19th	LINK
Wed, Mar 21	tasty BITES	Upping Returns	LINK
Tue, Mar 20	Market Measures	Sector ETFs vs Largest Components	LINK
Tue, Mar 20	Options Jive	The Hunt for Expensive Options	LINK
Tue, Mar 20	tasty Extras	An Update From Dylan Ratigan	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

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>

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