



Cherry Picks

tastytrade's Quantitative Newsletter for Traders

October 23, 2018

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

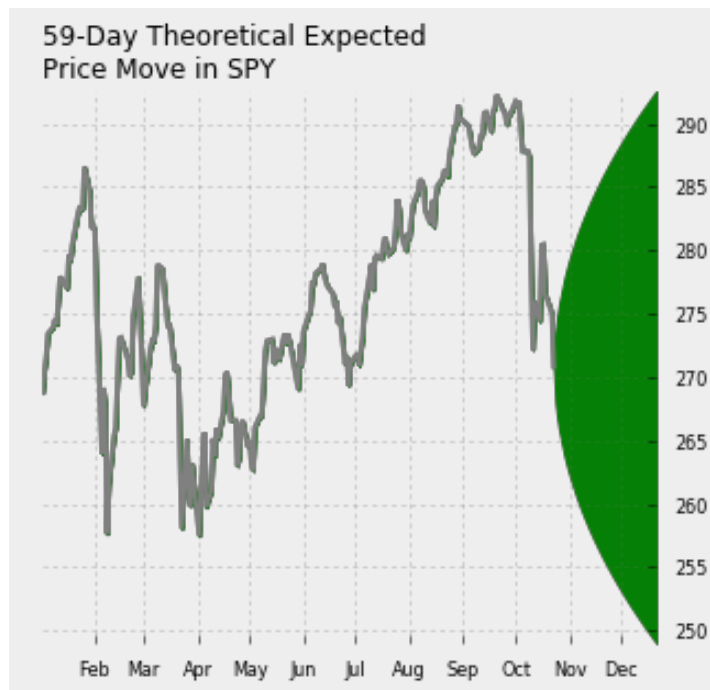
Expected Moves

To the right we are showing the expected move in the S&P 500 ETF (SPY) over the next 59 days (which coincides with the December expiration). We currently have volatility greater than 90% of days over the past year – which makes it an ideal time (theoretically) to get started in selling option premium if you've been sitting on the sidelines.

For example, a bullish, short 250 put in SPY (using the December expiration) brings in nearly \$300 worth of premium and has a near 90% probability of profit.

Yield Comparison Over the Last 10 Years

Check out yields for different durations below – I'm comparing it to the last 10 years. The bright side is you can get better returns on CDs for that extra cash. But considering the increases in volatility that is occurring right now in the market, I think we can find better opportunities in ETFs. That is why I'm not going out on the curve more than a few months – it is locking away cash for a considerable length of time for only a marginally better rate than historically.



	Today	1 year ago	2 years ago	3 years ago	4 years ago	5 years ago	6 years ago	7 years ago	8 years ago	9 years ago	10 years ago
1 MO	2.2%	1.0%	0.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.6%
3 MO	2.3%	1.1%	0.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	1.1%
6 MO	2.5%	1.3%	0.5%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.2%	1.5%
1 YR	2.7%	1.4%	0.7%	0.2%	0.1%	0.1%	0.2%	0.1%	0.2%	0.4%	1.6%
2 YR	2.9%	1.6%	0.8%	0.6%	0.4%	0.3%	0.3%	0.3%	0.4%	1.0%	1.5%
3 YR	3.0%	1.7%	1.0%	0.9%	0.8%	0.6%	0.4%	0.5%	0.5%	1.5%	1.8%
5 YR	3.1%	2.0%	1.3%	1.4%	1.5%	1.3%	0.8%	1.1%	1.2%	2.4%	2.6%
7 YR	3.1%	2.2%	1.5%	1.7%	1.9%	1.9%	1.3%	1.7%	1.9%	3.0%	3.0%
10 YR	3.2%	2.4%	1.7%	2.0%	2.3%	2.5%	1.8%	2.2%	2.6%	3.4%	3.7%
20 YR	3.3%	2.7%	2.2%	2.5%	2.7%	3.3%	2.6%	3.0%	3.6%	4.2%	4.4%
30 YR	3.4%	2.9%	2.5%	2.9%	3.0%	3.6%	3.0%	3.3%	3.9%	4.2%	4.1%

Earnings Season

We've got some pretty big names releasing earnings this week – it is the *peak* of earning's season.

Michael Rehenthin, PhD
research@tastytrade.com



3-Month Correlation Matrix of Price Returns

Emerging Mkt (EEM)	1													
Brazil (EWZ)	0.47	1												
Euro FX (FXE)	0.35	-0.04	1											
Gold (GLD)	0.26	0.07	0.57	1										
Russell (IWM)	0.43	0.04	0.01	0.02	1									
REITs (IYR)	0.24	0.17	0.18	0.07	0.39	1								
Oil Services (OIH)	0.41	0.08	0.22	0.21	0.35	-0.06	1							
Nasdaq (QQQ)	0.66	0.26	0.07	-0.01	0.61	0.21	0.22	1						
Silver (SLV)	0.48	0.3	0.48	0.78	0.12	0.12	0.28	0.17	1					
S&P 500 (SPY)	0.71	0.31	0.11	0.09	0.66	0.37	0.33	0.84	0.3	1				
Bonds (TLT)	0.02	0.04	0.12	0.21	-0.04	0.24	-0.11	0.03	0.15	-0.04	1			
Indust. (XLI)	0.54	0.3	0.13	0.11	0.52	0.37	0.34	0.38	0.23	0.68	-0.09	1		
Utilities (XLU)	-0.06	0.06	-0.04	0.03	0.04	0.65	-0.19	-0.05	0.05	0.15	0.2	0.31	1	

Heatmap of Popular ETFs

1 Month Returns of Popular ETFs

EWZ	GDX	GDXJ	XLU	SLV	GLD	XLP	TLT	DIA
21.3%	5.6%	4.9%	3.1%	2.0%	2.0%	0.2%	-2.8%	-4.7%
FXI	QQQ	SPY	XME	XLK	EEM	EFA	XLE	XLI
-4.9%	-5.4%	-5.5%	-5.9%	-5.9%	-6.2%	-7.1%	-7.2%	-7.2%
XLF	XRT	FEZ	XOP	OIH	IWM	XLB	KRE	XBI
-8.2%	-8.3%	-8.5%	-9.2%	-9.8%	-9.9%	-11.8%	-13.5%	-13.6%

1 Week Returns of Popular ETFs

FXI	XLP	XLU	GLD	EWZ	GDX	SLV	TLT	EEM
2.0%	1.4%	1.1%	-0.1%	-0.3%	-0.3%	-0.4%	-0.4%	-0.6%
GDXJ	XLK	DIA	EFA	QQQ	SPY	FEZ	XRT	XME
-0.6%	-1.2%	-1.5%	-1.5%	-1.9%	-1.9%	-2.1%	-2.1%	-2.3%
XLI	XLE	XLB	IWM	XLF	XOP	OIH	KRE	XBI
-2.4%	-2.5%	-2.6%	-3.1%	-3.4%	-4.3%	-5.6%	-6.3%	-6.5%

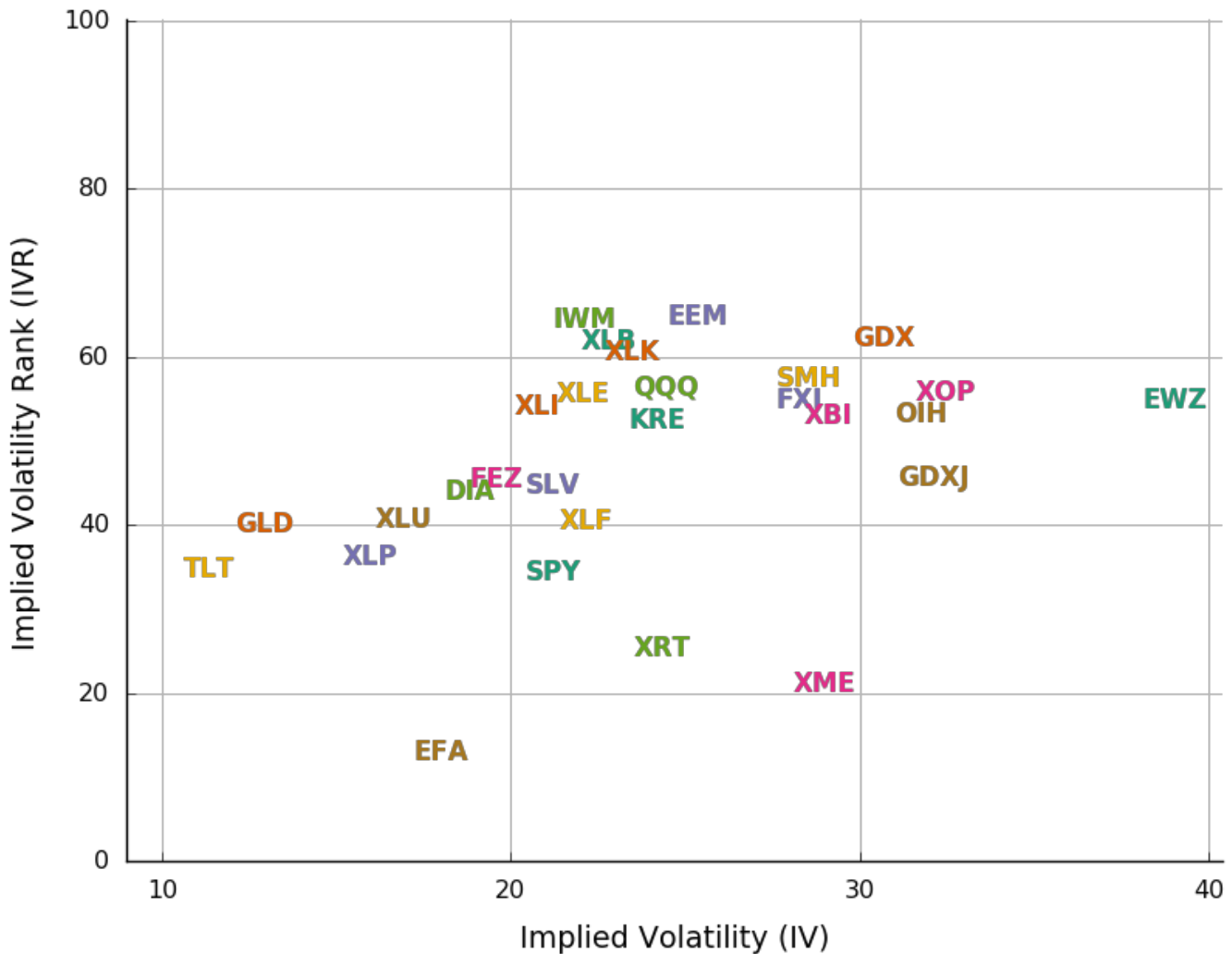


Market Statistics



Popular ETFs

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





Upcoming Earnings



Upcoming Earnings

Symbol	Description	Expected Report Date	Time of Day	In Dow?	In S&P 500?	In Russell 2000?	In tastytrade Watchlist?
JNPR	Juniper Networks	Tue Oct-23	After Close	-	Yes	-	-
TXN	Texas Instruments	Tue Oct-23	After Close	-	Yes	-	-
UPS	United Parcel Service	Wed Oct-24	Before Open	-	Yes	-	-
BA	Boeing Company	Wed Oct-24	Before Open	Yes	Yes	-	Yes
FCX	Freeport-Mcmoran Inc	Wed Oct-24	Before Open	-	Yes	-	Yes
T	AT&T Inc	Wed Oct-24	Before Open	-	Yes	-	-
F	Ford Motor Company	Wed Oct-24	After Close	-	Yes	-	-
GG	Goldcorp Inc	Wed Oct-24	After Close	-	-	-	Yes
MSFT	Microsoft Corp	Wed Oct-24	After Close	Yes	Yes	-	Yes
TSLA	Tesla Inc	Wed Oct-24	After Close	-	-	-	Yes
V	Visa Inc	Wed Oct-24	After Close	Yes	Yes	-	-
AMD	Adv Micro Devices	Wed Oct-24	After Close	-	Yes	-	-
TWTR	Twitter Inc	Thu Oct-25	Before Open	-	-	-	Yes
NEM	Newmont Mining Corp	Thu Oct-25	Before Open	-	Yes	-	-
RCL	Royal Caribbean Cruises Ltd	Thu Oct-25	Before Open	-	Yes	-	-
HSY	Hershey Foods Corp	Thu Oct-25	Before Open	-	Yes	-	-
MO	Altria Group	Thu Oct-25	Before Open	-	Yes	-	-
LUV	Southwest Airlines Company	Thu Oct-25	Before Open	-	Yes	-	-
MRK	Merck & Company	Thu Oct-25	Before Open	Yes	Yes	-	-
BMJ	Bristol-Myers Squibb Company	Thu Oct-25	Before Open	-	Yes	-	-
CELG	Celgene Corp	Thu Oct-25	Before Open	-	Yes	-	-
AAL	American Airlines Gp	Thu Oct-25	Before Open	-	Yes	-	-
UNP	Union Pacific Corp	Thu Oct-25	Before Open	-	Yes	-	-
EXPE	Expedia Group Inc	Thu Oct-25	After Close	-	Yes	-	-
CMG	Chipotle Mexican Grill	Thu Oct-25	After Close	-	Yes	-	Yes
INTC	Intel Corp	Thu Oct-25	After Close	Yes	Yes	-	-
GOOG	Alphabet Class C	Thu Oct-25	After Close	-	Yes	-	Yes
AMZN	Amazon.com Inc	Thu Oct-25	After Close	-	Yes	-	Yes
GILD	Gilead Sciences Inc	Thu Oct-25	After Close	-	Yes	-	Yes
WYNN	Wynn Resorts Ltd	Thu Oct-25	n/a	-	Yes	-	-
RIG	Transocean Inc	Mon Oct-29	After Close	-	Yes	-	Yes



Shows From the Research Team The Past Few Days:

Date	Segment	Title	Link
Mon, Oct 22	Market Measures	Only Trade in High IV?	LINK
Mon, Oct 22	The Skinny on Options: Abstract Applications	Confirmation Bias	LINK
Mon, Oct 22	Best Practices	Vega Over Time	LINK
Fri, Oct 19	Frankly Trading	Frank vs. Father Time	LINK
Fri, Oct 19	Market Measures	The Value of Writing Puts	LINK
Fri, Oct 19	Johnny Trades	Taking Advantage of Spikes in Volatility Part 2	LINK
Fri, Oct 19	Closing the Gap - Futures Edition	Crude Oil & Expected Move	LINK
Thu, Oct 18	Market Measures	Index Volatility Around Earnings	LINK
Thu, Oct 18	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK
Wed, Oct 17	Market Measures	When Correlations Converge	LINK
Wed, Oct 17	Options Jive	Is There a Trade? Week of October 15th	LINK
Wed, Oct 17	Options Jive	What's tastytrade Trading? New Market Environment	LINK
Tue, Oct 16	Market Measures	Expense Ratio for Options Trading	LINK
Tue, Oct 16	Options Jive	Market Context	LINK
Tue, Oct 16	Best Practices	Zero Sum	LINK
Mon, Oct 15	Market Measures	How Often Does IV Fall?	LINK
Mon, Oct 15	The Skinny on Options: Abstract Applications	Short Speed	LINK
Mon, Oct 15	Rising Stars	Meet Jamie R., tastytrade's Newest Rising Star!	LINK
Fri, Oct 12	Frankly Trading	Choosing a Stock Market to Trade	LINK
Fri, Oct 12	Market Measures	Stock Volatility Pairs Trading	LINK
Fri, Oct 12	Johnny Trades	Nick's New Ideas	LINK
Fri, Oct 12	Closing the Gap - Futures Edition	Large Cap vs. Small - Time For a Turn?	LINK
Thu, Oct 11	Market Measures	Incremental Improvement in Our Portfolio	LINK
Thu, Oct 11	Trades From the Research Team LIVE	Trades From the Research Team LIVE	LINK
Wed, Oct 10	tasty Extras	Alex the Trader: Skew and Liquid Stocks	LINK
Wed, Oct 10	Market Measures	Are Marijuana and Bitcoin Played Out?	LINK
Wed, Oct 10	Options Jive	Is There a Trade? Week of October 8th	LINK
Wed, Oct 10	Options Jive	What's tastytrade Trading? Playing the Extremes	LINK
Tue, Oct 09	Market Measures	Why We Manage Our Own Money	LINK
Tue, Oct 09	Options Jive	Waiting for High IV	LINK
Tue, Oct 09	tasty BITES	Long Straddles	LINK



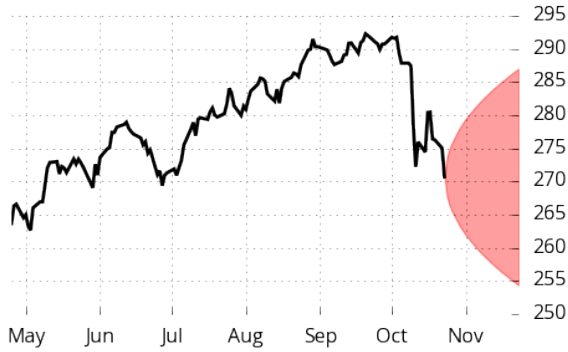
Current Market Outlook



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.

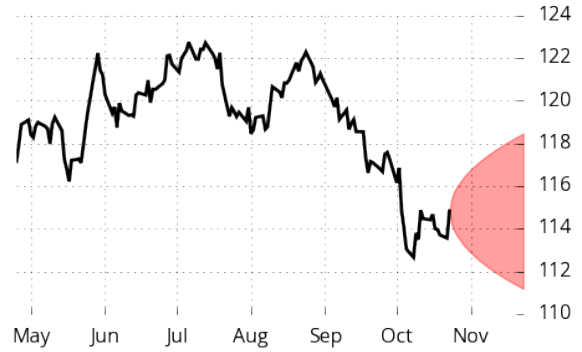
SPDR S&P 500
IV: 20
IV Rank: 34 (Moderately Low)
Estimated Liquidity: Great

SPY



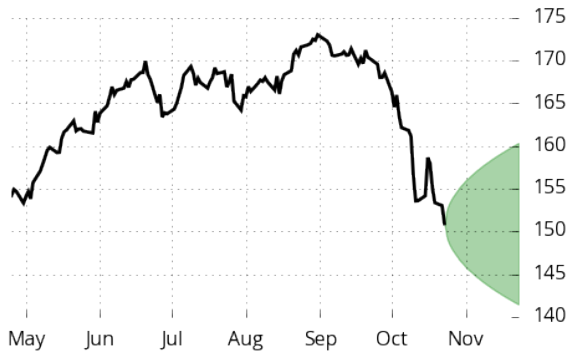
iShares 20+ Year Treasury Bond ETF
IV: 10
IV Rank: 34 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: -0.1

TLT



iShares Russell 2000 ETF
IV: 21
IV Rank: 63 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.71

IWM



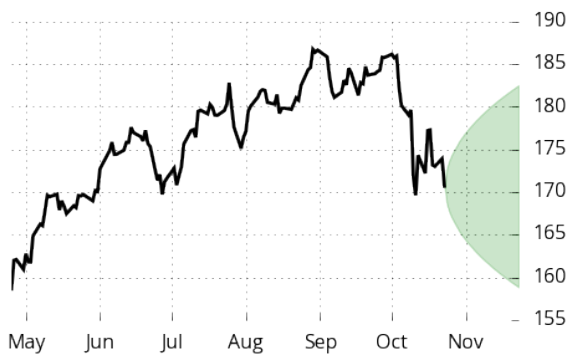
Invesco CurrencyShares Euro Currency Trust
IV: 7
IV Rank: 52 (Moderately High)
Estimated Liquidity: Good
Correlation with S&P 500: 0.09

FXE



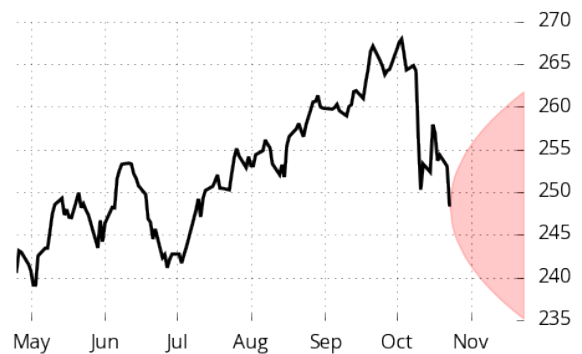
Invesco QQQ Trust, Series 1
IV: 23
IV Rank: 56 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.84

QQQ



SPDR Dow Jones Industrial Average ETF
IV: 18
IV Rank: 43 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.88

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.

iShares Inc iShares MSCI Brazil ETF
IV: 38
IV Rank: 54 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.29

EWZ



SPDR Select Sector Fund Utilities
IV: 16
IV Rank: 40 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.13

XLU



SPDR Gold Trust
IV: 12
IV Rank: 39 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.02

GLD



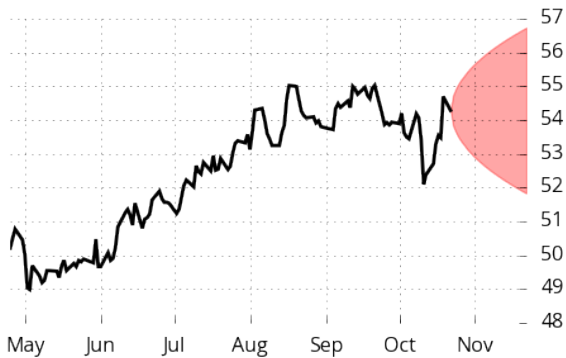
VanEck Vectors Oil Services ETF
IV: 31
IV Rank: 52 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.35

OIH



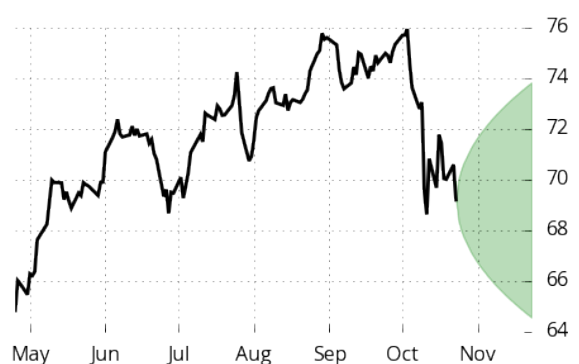
SPDR Select Sector Fund Consumer Staples
IV: 15
IV Rank: 36 (Moderately Low)
Estimated Liquidity: Great
Correlation with S&P 500: 0.31

XLP



SPDR Select Sector Fund Technology
IV: 23
IV Rank: 60 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.8

XLK





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.

Facebook, (Class A)
IV: 41
IV Rank: 84 (High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.43
Earnings: Tue, Oct 30, 2018 (AMC)

FB



Netflix,
IV: 45
IV Rank: 57 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.56
Earnings: Tue, Oct 16, 2018 (AMC)

NFLX



Apple
IV: 33
IV Rank: 76 (High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.56
Earnings: Thu, Nov 01, 2018 (AMC)

AAPL



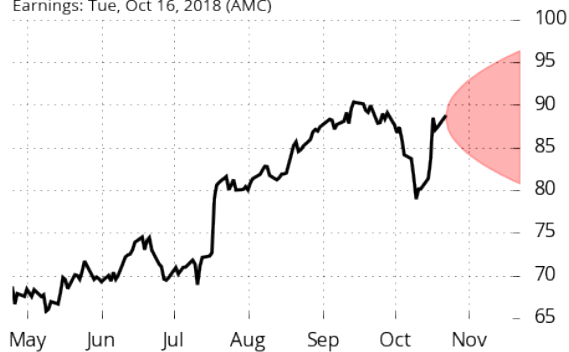
Halliburton
IV: 34
IV Rank: 55 (Moderately High)
Estimated Liquidity: Great
Correlation with S&P 500: 0.3
Earnings: Mon, Oct 22, 2018 (BMO)

HAL



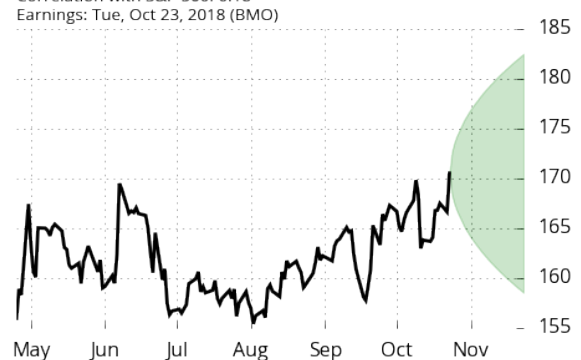
United Continental Holdings,
IV: 30
IV Rank: 38 (Moderately Low)
Estimated Liquidity: Good
Correlation with S&P 500: 0.31
Earnings: Tue, Oct 16, 2018 (AMC)

UAL



McDonald's
IV: 24
IV Rank: 56 (Moderately High)
Estimated Liquidity: Good
Correlation with S&P 500: 0.18
Earnings: Tue, Oct 23, 2018 (BMO)

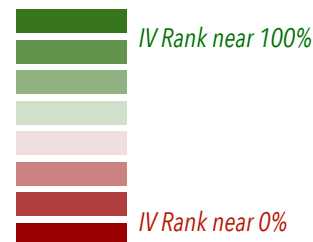
MCD



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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