

The background of the slide is a high-angle, wide shot of the Chicago skyline at sunset. The sky is a mix of orange, pink, and light blue. The city's skyscrapers are densely packed, with many windows glowing with interior lights. The Lake Michigan is visible in the distance. A large, white, semi-transparent triangle is overlaid on the left side of the image, pointing towards the center.

Small Caps 2019: Index Performance Themes & Option Trading

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Cboe Options Institute (™)

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- ❖ No Revisionist History: It was FOGGY at best
- ❖ Powell's comments on futures hikes arguably settled the seas



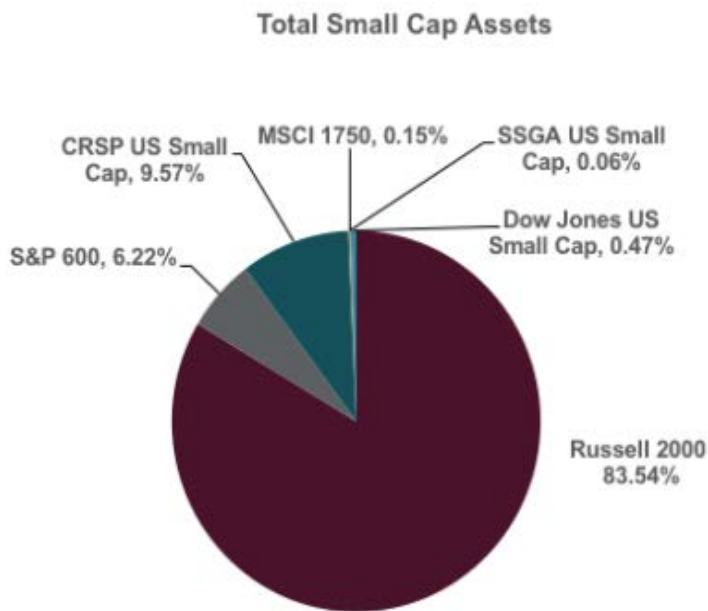
What a Run.....

- ❖ RUT^(SM) 12/24 bottom to 3/5 close +24.5%
 - 2019 (thru 3/5) RUT performance +16.2%
 - January RUT performance +11.1%
 - February RUT performance +5.1%
 - March performance (3/5) -0.04%
- ❖ RUT 2008 – 2018 Annual Performance:

2008	766.03	499.45	-266.58	-34.80%
2009	499.45	625.39	125.94	25.22%
2010	625.39	783.65	158.26	25.31%
2011	783.65	740.92	-42.73	-5.45%
2012	740.92	849.35	108.43	14.63%
2013	849.35	1163.64	314.29	37.00%
2014	1163.64	1204.70	41.06	3.53%
2015	1204.70	1135.89	-68.81	-5.71%
2016	1135.89	1357.13	221.24	19.48%
2017	1357.13	1535.51	178.38	13.14%
2018	1535.51	1348.56	-186.95	-12.18%

Before We Begin.....

- ❖ The Russell 2000 Index: What is it?
- ❖ Widely benchmarked Index for US Small Cap performance



	RUSSELL 2000®		
	Largest w/banding	Largest	Smallest
2018	\$5.0B	\$3.7B	\$159.2M
2017	4.4B	3.4B	143.6M
2016	3.9B	2.9B	132.9M
2015	4.3B	3.4B	176.7M
2014	4.1B	3.1B	168.7M
2013	3.3B	2.6B	128.9M
2012	2.6B	2.0B	100.7M
2011	3.0B	2.2B	130.3M
2010	2.3B	1.7B	111.9M
2009	1.7B	1.2B	78.3M

- ❖ What's a "Small Cap" stock?
 - Falls between \$5B and \$160M
 - \$ Weighted Avg: ~\$2.1B and Median \$900M (As of 2018)



Not Exactly Household Names

❖ SPX^(SM) Top Constituent Names:

- Microsoft (MSFT) Johnson & Johnson (JNJ)
- Apple (AAPL) JPMorgan Chase (JPM)
- Amazon (AMZN) Alphabet Inc. (GOOG)
- Berkshire Hath (BRK/B) Alphabet (GOOGL)
- Facebook (FB) Exxon Mobile (XOM)

❖ RUT Top Constituent Names:

- Etsy Inc. (ETSY) Ciena Corp (CIEN)
- Five Below (FIVE) Planet Fitness (PLNT)
- Integrated Device (IDTI) Primerica (PRI)
- Trade Desk Inc (TTD) Cree Inc. (CREE)
- HubSpot Inc. (HUBS) Entegris Inc. (ENTG)



❖ Index Options (SPX/DJX/RUT/VIX™):

- Large Notional Value RUT 1568.88 v. IWM 156.08 (10X)
- European Style (IWM dividend uncertain ~\$1.85 in 2018)
- RUT: Cash Settled v. IWM: Physically Delivered
- RUT: Potential 1256 Tax Benefit v. IWM: Uncertain Tax Treatment



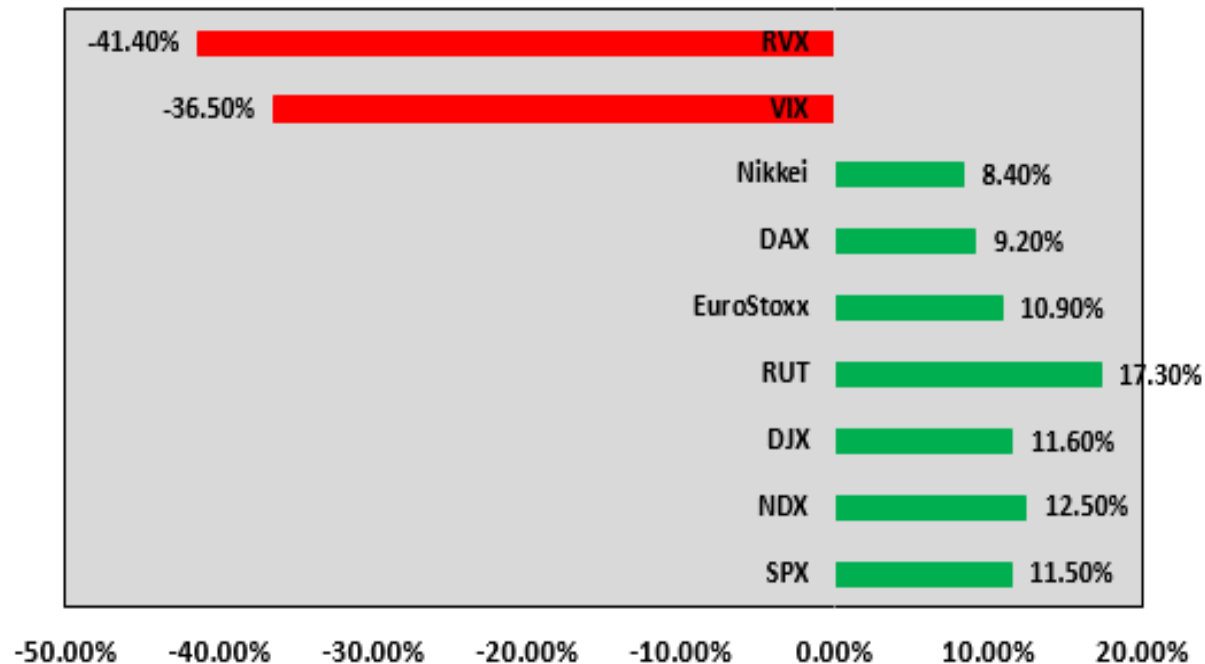
Support Becomes Resistance

- ❖ Since early/mid 2016 the 200 day SMA had been supportive
- ❖ That support gave way in October and may become a flashpoint



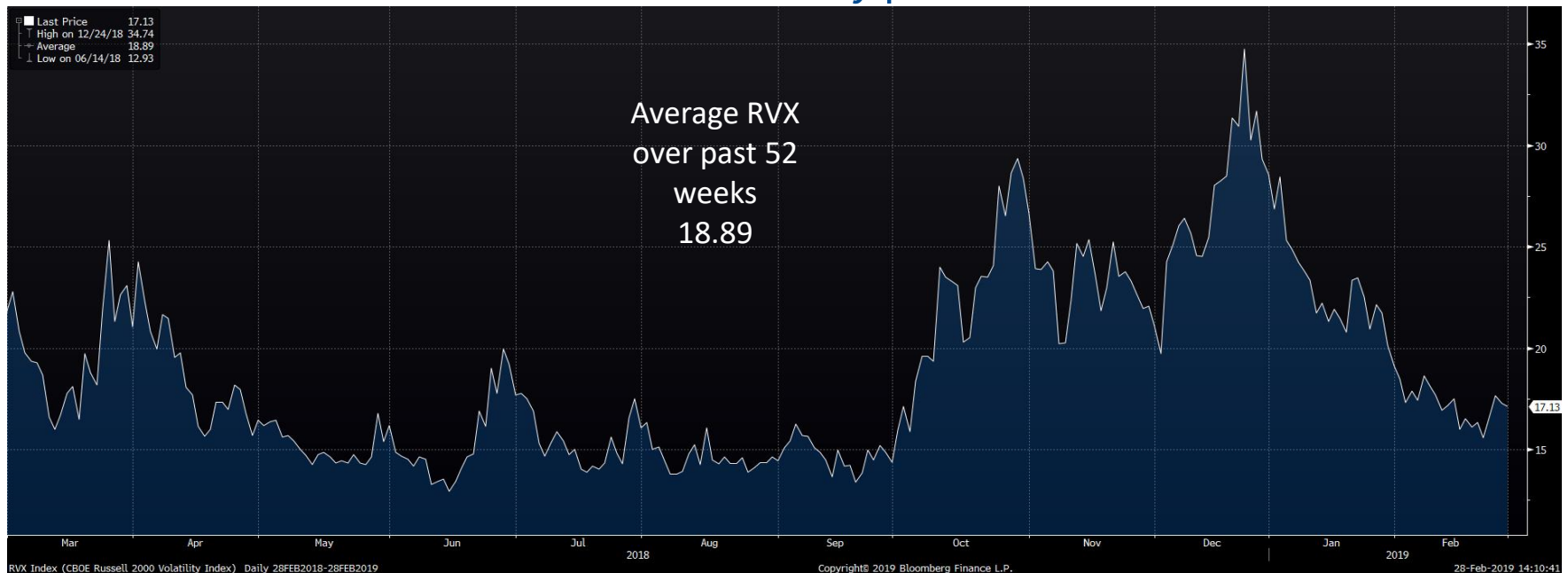
- ❖ YTD (2/28/2019) the Russell 2000 has meaningfully outperformed
- ❖ 30 Day Anticipated Volatility in RUT has declined significantly

YTD* Performance



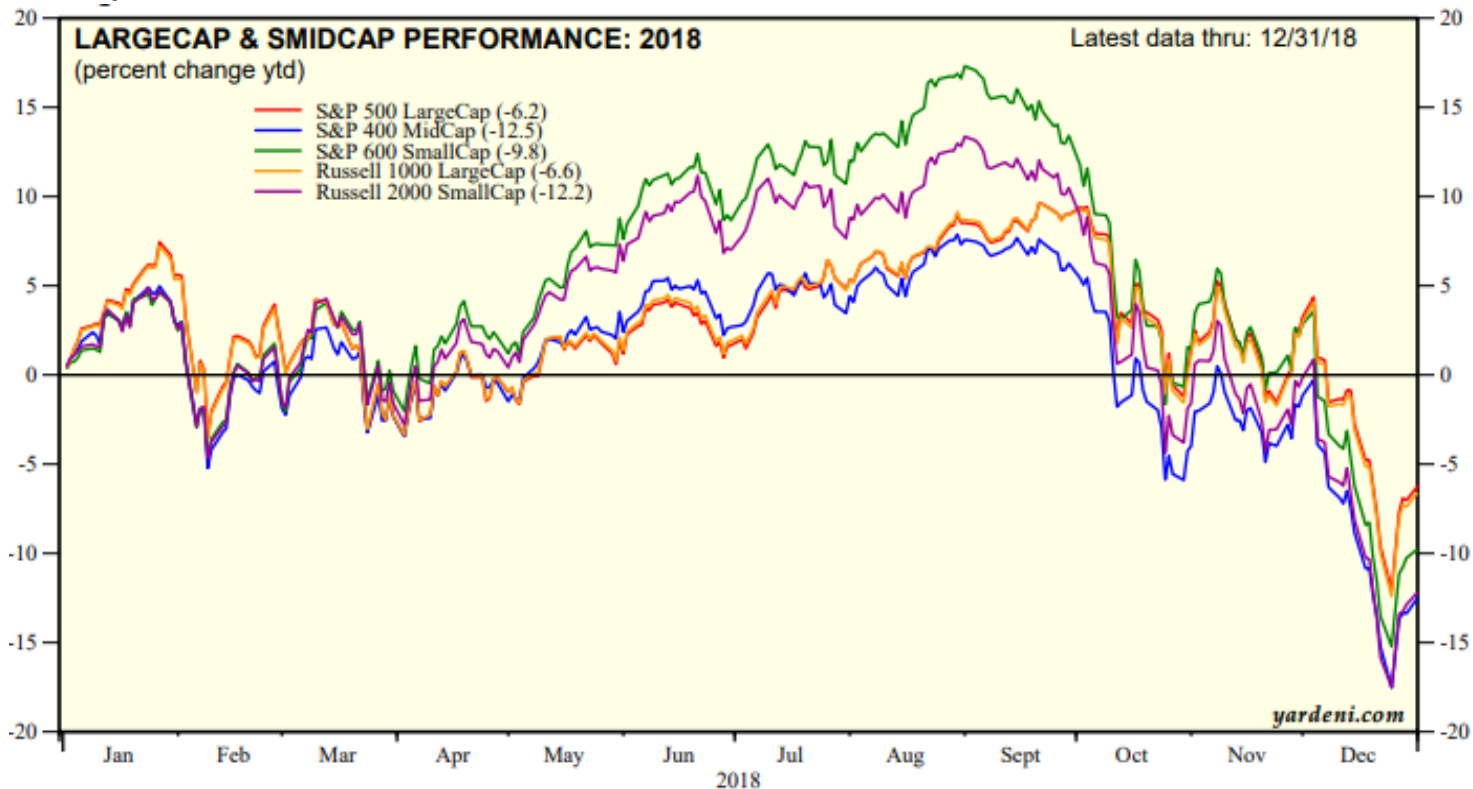
What's That (RVX Shift) Tell Me?

- ❖ Markets are behaving “normally”
- ❖ Market participants typically expect what's occurred recently to continue
- ❖ RUT Index options (1 month) are “relatively” inexpensive
 - “Relative” to the October – January period



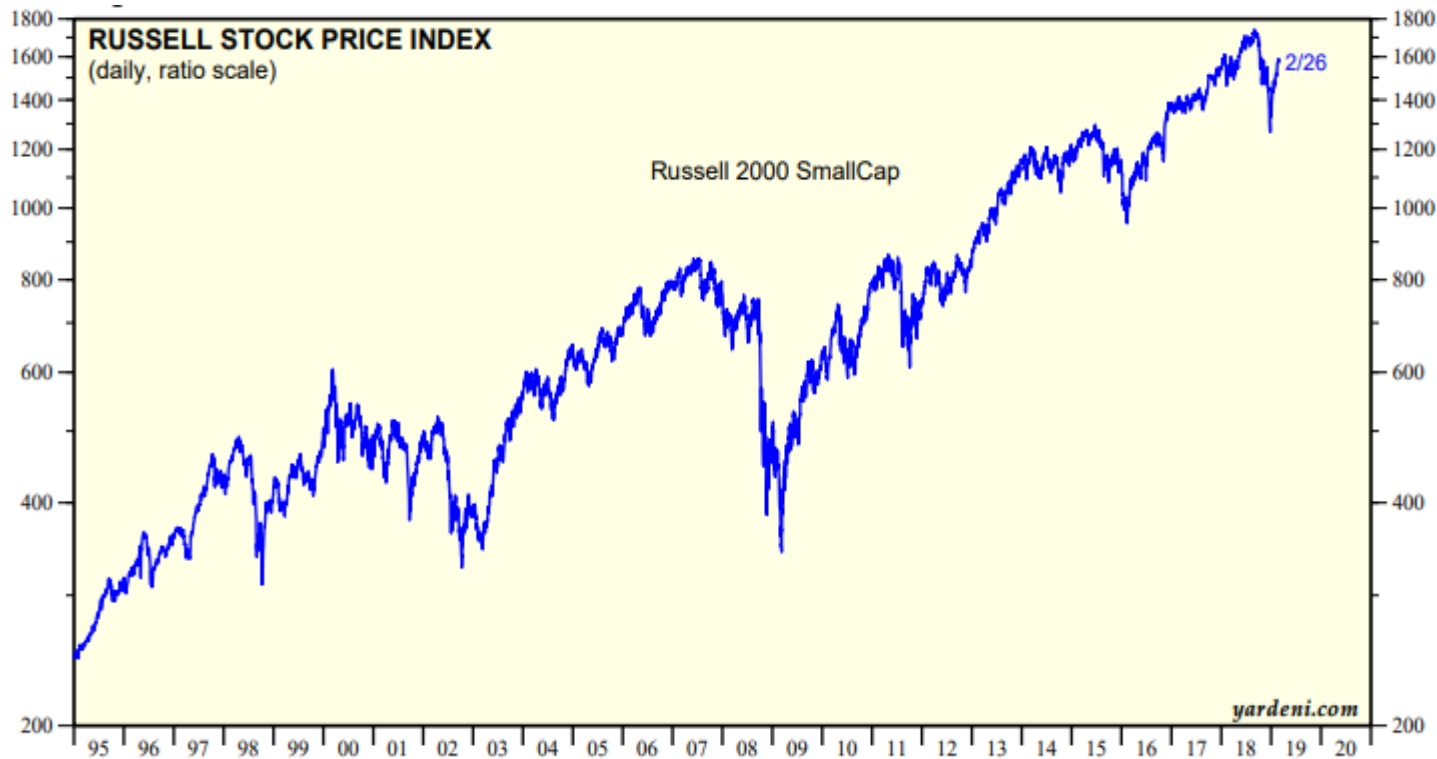
Perspective (2018)

- ❖ Last year broad based Indexes were lower (first time since 2008)
- ❖ Small Caps underperformed compared to Large Cap (in line with MidCap)



Perspective (25 Years)

- ❖ Clearly buy and hold has worked....Investing or Trading (different art)
- ❖ Volatility (both realized and implied) appear to be returning to “normal”

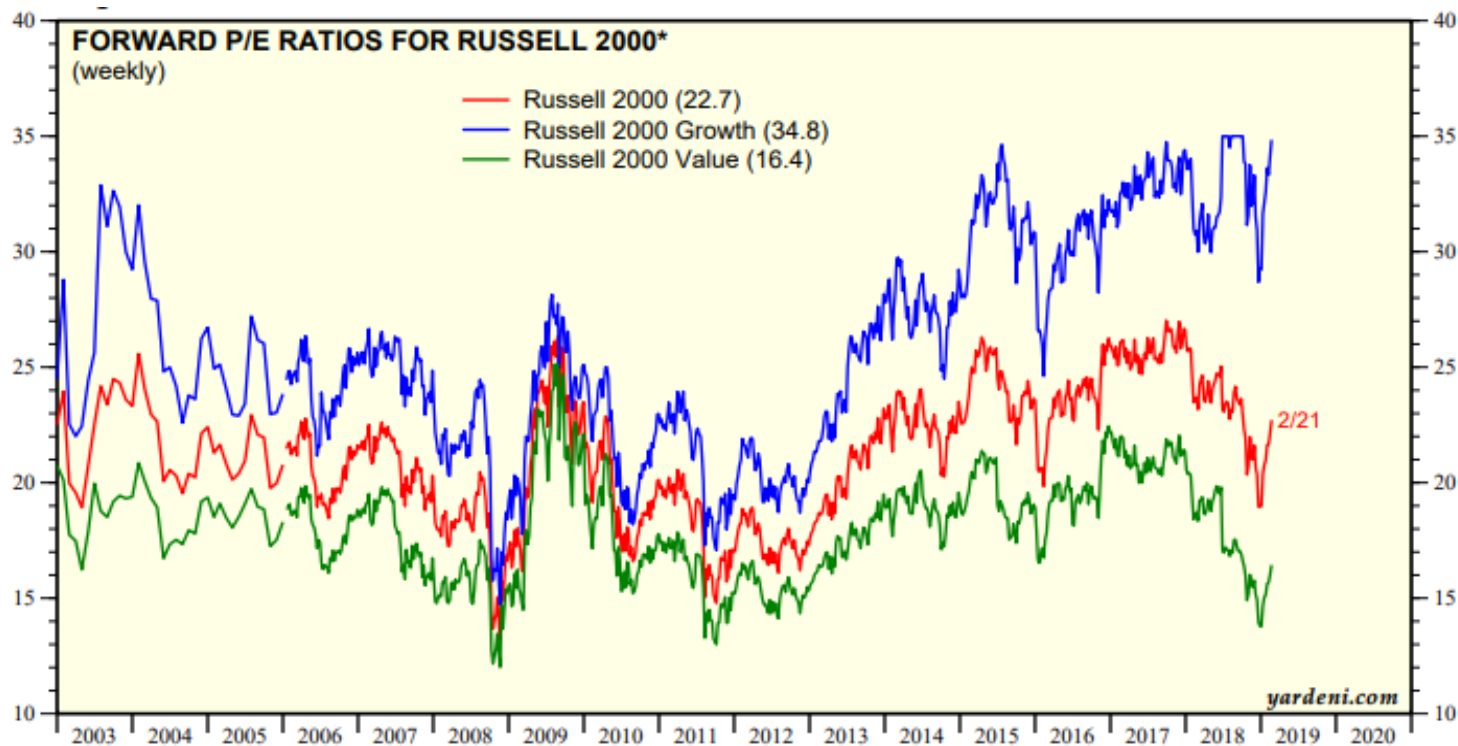


Source: Frank Russell Company and Haver Analytics.

Source: Yardeni Research + FTSE Russell

PE Ratios (Longer Term)

- ❖ PE's are highest for “Growth”, lowest for “Value” and RUT in the middle
- ❖ On a long term basis PE levels appear range-bound



* Price divided by 12-month (52-week) forward consensus expected operating earnings per share. Monthly data through December 2005, weekly thereafter.
Source: I/B/E/S data by Refinitiv.

Off the Lows (thru 3/7)

- ❖ RUT still leading the way +13.16%
- ❖ NDX +10.78%, SPX +9.65%, and DJX +9.21%



RUT Trading: Jan 2nd w/ Index @ 1350

^RUT	RUT(AM) Mar15 1,400.00 C	160	35.50	CBOE
^RUT	RUTW(W) Jan31 1,460.00 C	480	4.30	CBOE

❖ Likely an attempt to finance some longer dated upside exposure to Small Caps

- Assuming Long 100 of the Mar 1400 C (35 delta) (35.50 Debit)
 - Long 3500 deltas & \$355k in OTM call premium
- Assuming Short 480 of the Jan 31st 1460 C (8 delta) (12.90 Credit)
 - Short 3850 deltas & \$206k in OTM call premium
- Risk pivots (becomes defined) at Jan 31st expiration



Global Economy.....What's it mean for RUT?

- ❖ The relative progress on China Trade Deal likely has lesser impact on RUT names vis-à-vis the Large Cap stocks
- ❖ RUT exposure is 90+% domestic focused
- ❖ Small Cap companies far LESS dependent on export markets
 - Roughly 20% of sales in overseas markets (Source: CNBC @pattidomm June 28, 2018)
- ❖ There was somewhat similar broad market behavior in mid 2018 when China/Trade War fears escalated



RUT Trading 2/27 w/Index ~1580

OPTION	QTY	PRICE	EXCHANGE	CONDITION	MARKET	UNDERLYING
RUTW(W) Apr05 1,560.00 P	200	26.63	CBOE	Spread	26.30 x 27.00	1,571.14 x 1,571.1
RUT(AM) Mar15 1,450.00 P	200	1.30	CBOE	Spread	1.30 x 1.45	1,579.89 x 1,579.8
RUT(AM) Mar15 1,450.00 P	200	1.30	CBOE	Spread	1.30 x 1.45	1,579.89 x 1,579.8
RUT(AM) Mar15 1,450.00 P	200	1.30	CBOE	Spread	1.30 x 1.45	1,579.89 x 1,579.8

❖ Ratio Diagonal Spread – Advanced Approach

- Bought 6 week slightly OTM options when failed at 200 day SMA (1585)
 - Paid 26.63 x 200 options (own time)
- Oversold 2 week well OTM options (right at 50 day SMA ~1460)
 - Collect 1.30 x 600 (3.90 total)
- Debit spread, paid 22.73 x 200 (control time and higher delta option)
 - Potential to “oversell” shorter dated options ahead of 4/5 expiry

Hybrid Index Trading– Electronic Access

11:46:12.380	^RUT	RUT(AM) Sep20 1,190.00 P	200	8.66	C2	Spread	8.40 x 9.00
11:46:12.380	^RUT	RUT(AM) Sep20 1,180.00 P	200	8.24	C2	Spread	7.90 x 8.50
11:46:12.930	^RUT	RUT(AM) Sep20 1,180.00 P	288	8.24	CBOE	Spread	7.90 x 8.50
11:46:12.930	^RUT	RUT(AM) Sep20 1,190.00 P	288	8.66	CBOE	Spread	8.40 x 9.00
11:58:27.107	^RUT	RUT(AM) Aug16 1,210.00 P	200	7.38	C2	Spread	7.10 x 7.70
11:58:27.107	^RUT	RUT(AM) Aug16 1,200.00 P	200	7.02	C2	Spread	6.70 x 7.30
11:58:27.150	^RUT	RUT(AM) Aug16 1,200.00 P	275	7.02	CBOE	Spread	6.70 x 7.30
11:58:27.150	^RUT	RUT(AM) Aug16 1,210.00 P	275	7.38	CBOE	Spread	7.10 x 7.70

- ❖ Looks like a roll down and out or systematic P/S sales (3/5/2019)
- ❖ C2 Trading is fully electronic and most spreads trade on inside market

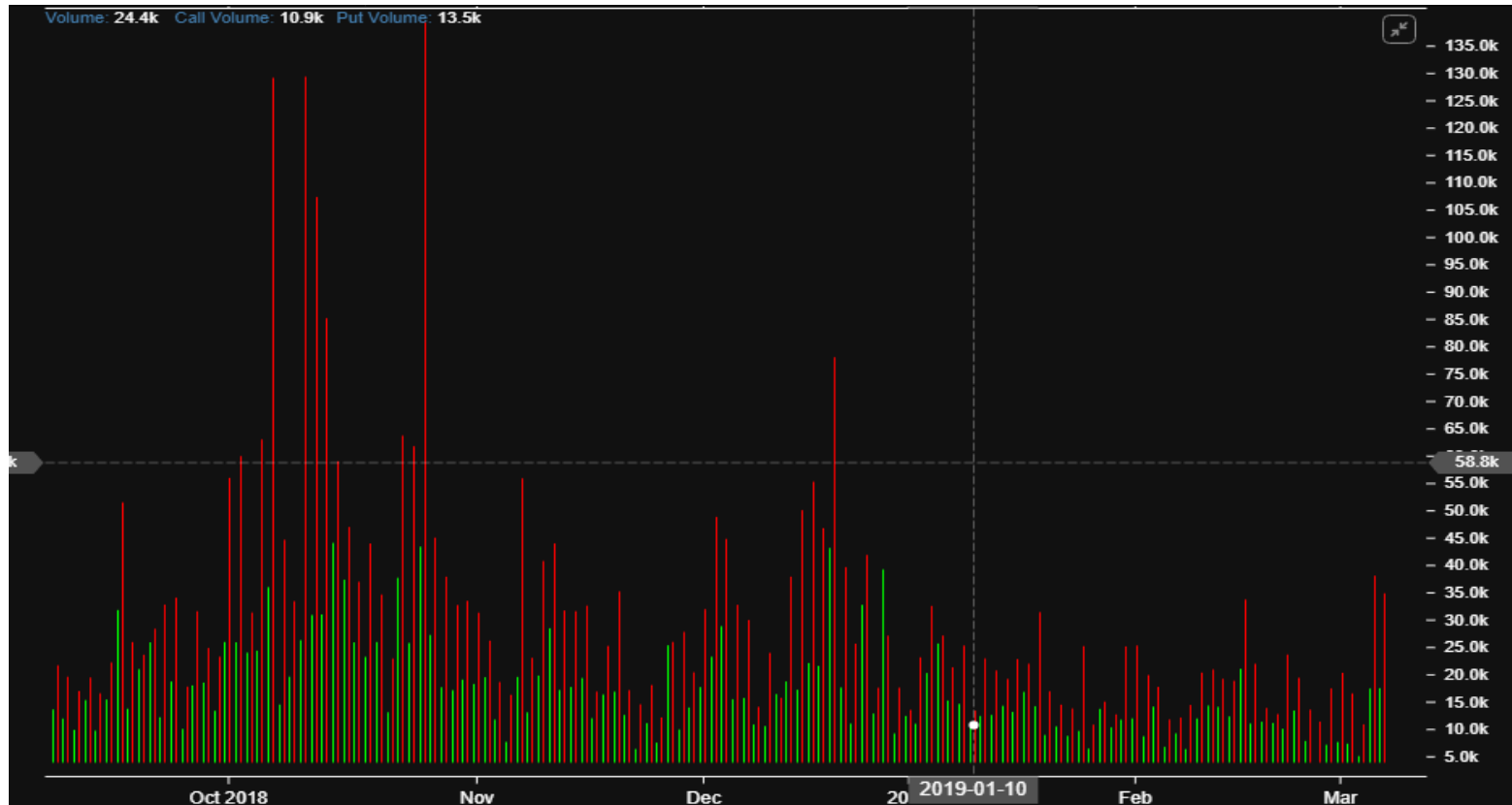
*Understand the optics on Index options given notional size X 10

RVX is “VIX™ Recipe” Using RUT options



- ❖ RVX break above its 200 day SMA in October was significant (10/4/2018)
- ❖ **Old Floor Saying: “Risk gets repriced quickly”**

Higher Index Option Volume Generally Hedging Activity



- ❖ Similarities to the early October move higher after low volume January and February
- ❖ **Typically Call/Put Ratio in RUT 1:1.8 (last 3 months)**

- ❖ Long diagonals in Index products is a common strategy
- ❖ Assuming the option trader owns time (longer dated options) you're able to maintain a directional bias and potentially finance via sale of (multiple) shorter dated options
- ❖ Risk is undefined (as a result of overwrite) until short dated options expire
- ❖ At which point the trader may look to sell more options/"refinance"
- ❖ In an ideal scenario, the trader would end up long options for \$0 premium or possibly a credit
- ❖ Ideal scenarios rarely come to pass



Happy St. Patrick's Day!

- ❖ If you travel to Ireland..... you should see Galway and the North is absolutely spectacular (assuming Brexit doesn't screw things up)





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