Options Fundamentals Ep 7

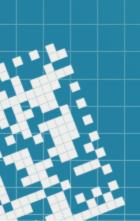
Demystifying the Greeks: Vega

Gab: Finance Group

@MidwayGab

BitChute: MidwayTrades

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Disclaimer

This presentation is for educational purposes only. Nothing in this presentation is intended to be trading or financial advice.



What is Vega?

- Extrinsic Value
 - Volatility
 - Time
- All Extrinsic value goes away at expiration
- Vega measures the effect of a change in implied volatility of an option to the price of the option
 - It measures how the price will change if the IV of an option goes up 1 percentage point.

Vega Behavior

- Vega is similar to Theta
 - It is highest ATM
 - It is less significant deep ITM
- Unlike Theta
 - It is always positive on a per option basis (Theta is always negative)
 - It is higher further from expiration

Vega @ 2 days

CMG		CHIPOTLE ME	XICAN GRILL	COM 597.	74 -1.72 -0.29%	B: 597.25 A: 598.99	₩ ±6.541		
	ng								
>		Last X	Ne	et Chng		Bid X		Ask X	Size
•	597.74 N			-1.72	72 597.25 P			598.99 P	1 x 1
Trade Gr	id								
✓ Option C	hain Filter	: Off . Sprea	d: Single	Layout: Last X	. Net Chan	ge, Impl Vo	ol, Delta, Veg	a	
				LLS	,	g-,p.	., ,	Strikes: 30	
	Last Y	Net Chng	Impl Vol	Delta ,	Vega ,	Bid X	Ask X	Exp	Strike
22 550	_			Deita ,	vega ,	blu A	A3K A	Exp	Strike
▼ 22 FEB		00 (Weeklys)							
	32.74 M	0	33.84%	.98	.03	33.00 B		22 FEB 19	562.5
	31.79 C	-8.32	0.00%	1.00	.00	30.50 W		22 FEB 19	565
	33.90 M	0		1.00	.00	27.60 N		22 FEB 19	567.5
	25.81 C	-7.29	35.95%	.93	.07	26.40 M		22 FEB 19	570
	30.52 I	0	0.00%	1.00	.00	23.00 W		22 FEB 19	572.5
	22.30 H	-4.20	28.03%	.94	.07	21.00 H	25.50 W	22 FEB 19	575
	25.03 C	0		1.00	.00	18.00 W		22 FEB 19	577.5
	17.51 C	-6.39	15.84%	.98	.02	15.50 W		22 FEB 19	580
	21.15 I	0	26.05%	.87	.12	14.60 M		22 FEB 19	582.5
	12.97 C	-6.62	24.60%	.84	.13	12.30 M		22 FEB 19	585
	10.00 Q	-10.50	19.95%	.84	.13	10.10 M		22 FEB 19	587.5
	9.20 N	-5.39	22.00%	.75	.17	8.10 X	11.20 M	22 FEB 19	590
	6.60 Q	-4.35	23.63%	.67	.20	7.50 C	8.90 M	22 FEB 19	592.5
	5.68 C	-4.12	22.70%	.60	.21	6.00 C		22 FEB 19	595
	4.50 Q	-3.50	22.32%	.52	.22	4.40 M		22 FEB 19	597.5
	3.58 C	-2.22	21.46%	.43	.21	3.40 M		22 FEB 19	600
	2.85 N	-1.65	22.23%	.35	.20	2.50 M		22 FEB 19	602.5
	1.75 C	-2.05	22.36%	.28	.18	1.50 M	2.70 M	22 FEB 19	605
	1.15 Z	-1.83	21.61%	.21	.16	1.05 M		22 FEB 19	607.5
	.81 I	-1.54	23.04%	.17	.14	.70 N		22 FEB 19	610
	.60 I	-2.98	31.30%	.20	.15	.65 M	3.10 N	22 FEB 19	612.5
	.43 1	-1.02	23.18%	.09	.09	.15 M		22 FEB 19	615
	.30 C	78	25.61%	.08	.08	.25 N		22 FEB 19	617.5
	.25 Q	49	27.34%	.07	.07	.20 N	.75 M	22 FEB 19	620
	.18 C	46	46.75%	.18	.14	.20 M	4.50 X	22 FEB 19	622.5
	.15 P	26	26.87%	.04	.04	.15 P	.25 N	22 FEB 19	625
	.14 C	24	28.17%	.03	.04	.10 M	.25 H	22 FEB 19	627.5
	.10 I	18	28.51%	.02	.03	.10 Q	.15 Q	22 FEB 19	630
	25.0		56 4201		40	0.7	120 1	22.550.40	622.5

Vega @ 30 days

CMG	- 1	CHIPOT	LE ME	XICAN GRILL	. COM	597.74	-1.72 -0.29%	B: 597.25 A: 598.99	₩ ±6.54			
∨ Underly	ying											
>		Last X		Ne	et Chng			Bid X		Ask 🔀	Size	
•		597.74 N			-1.72		59	7.25 P		598.99 P	1 x 1	
Option	Chain Fil	ter: Off	Sprea	d: Single	Layout:	Last X, N	et Chan	ge, Impl Vo	ol, Delta, Ve	ga		
				CA	LLS					Strikes: 30	•	
	Last X	Net Cl	nng ,	Impl Vol	Del	ta ,	Vega ,	Bid X	Ask X	Exp		Strike
▼ 22 M	AR 19 (30)	100 (W	eeklys)								
	0		0	26.86%		.80	.49	39.70	43.80 J	22 MAR 19		562.
	12,11	1	0	25.90%		.79	.50	37.40 J	41.30 J			56
	0		O	26.46%		.77	.53	36.00 J	39.50 J			567.
	10.77	1	0	26.35%		.75	.55	34.40 J	37.30 J	22 MAR 19		57
	0		0	25.10%		.74	.56	31.20 J	35.50 C	22 MAR 19		572
	22.00	N	0	26.24%		.72	.59	30.90 J	33.60 J	22 MAR 19		57
	0		О	26.31%		.70	.61	29.10 J	32.10 C	22 MAR 19		577
	30.20	1	0	24.85%		.68	.62	26.00 C	30.10 C	22 MAR 19		58
	0		О	25.97%		.66	.64	25.70 C	28.60 C	22 MAR 19		582
	22.00	C	0	25.27%		.64	.65	23.40 C	26.90 C	22 MAR 19		58
	0		0	26.62%		.61	.67	22.80 C	26.30 C	22 MAR 19		587
	19.50	M	0	25.47%		.59	.68	21.20 M	23.50 M	22 MAR 19		59
	20.70	1	N/A	26.69%		.57	.68	20.10 M	23.50 M	22 MAR 19		592
	28.20	Z	0	25.70%		.55	.69	18.10 N	21.50 M	22 MAR 19		5
	0		0	25.66%		.53	.69	17.30 M	19.70 M	22 MAR 19		597
	19.10		0	26.40%		.51	.69	16.10 M				6
	15.70	1	-6.50	26.34%		.48	.69	14.70 M	18.50 B	22 MAR 19		602
	15.32	C	-3.43	25.41%		.46	.69	13.80 N	15.90 P	22 MAR 19		6
	18.45	C	0	26.06%		.44	.69	12.80 M	15.70 M	22 MAR 19		607
	13.90		-3.30	26.13%		.42	.68	11.80 M	14.80 M	22 MAR 19		6
	17.40	Q	0	25.45%		.40	.67	10.50 M	13.30 M	22 MAR 19		612
	16.92	C	0	25.89%		.38	.66	10.00 M		22 MAR 19		6
	15.30	Q	0	26.12%		.36	.65	9.30 M	11.90 M	22 MAR 19		617
	9.31	C	-4.12	25.09%		.33	.63	8.00 M	10.30 P	22 MAR 19		6
	12.51	C	0	26.44%		.32	.62	7.50 M	11.00 B	22 MAR 19		622
	13.11	C	0	26.05%		.30	.61	6.60 M	10.00 M	22 MAR 19		6
	11.50	Q	0	25.39%		.28	.58	6.00 M	8.50 M	22 MAR 19		627
	6.41	A	-4.59	25.13%		.26	.56	5.10 M	7.90 M	22 MAR 19		6
	0		0	25.70%		.24	.55	5.30 M	7.20 M	22 MAR 19		632
	8.70	Q	0	24.02%		.21	.50	3.80 C	5.90 M	22 MAR 19		63

Vega @ 331 days

CMG		CHIPOTLE ME	XICAN GRILL C	ом 597.7 4	-1.72 -0.29%	B: 597.25 A: 598.99	₩ ±6.54		
 Underly 	ing								
		Last X	Net	Chng		Bid X		Ask X	Size
•	59	97.74 N		-1.72	59	7.25 P	<u></u>	598.99 P	1 x 1
Option	Chain Filter	r: Off Sprea	d: Single La	yout: Last X, N	let Chan	ge, Impl Vo	ol, Deita, Veg	ga	
		-	CALI					Strikes: 3	0
	Last X	Net Chng	Impl Vol	Delta ,	Vega ,	Bid X	Ask X	Exp	Str
➤ 17 MA	_	100	mpi voi 2	Delta 4	v cgu	DIG A	A3K A	LAP	30
> 21 JUN	119 (121)	100							
➤ 20 SEF	2 19 (212)	100							
▼ 17 JAN	20 (331)	100							
	171.12 I	+7.12	34.82%	.86	1.26	171.10 M	175.50 M	17 JAN 20	
	165.22 C	-5.78	34.43%	.85	1.35	163.10 M		17 JAN 20	4
	111.98 I	0	33.95%	.83	1.42	155.20 J	159.40 J	17 JAN 20	
	152.96 X	0	33.65%	.82	1.51	147.60 J	151.80 J	17 JAN 20	4
	102.09 C	0	33.56%	.80	1.59	140.20 J	145.00 W	17 JAN 20	
	140.00 Z	0	33.20%	.78	1.67	133.00 J	137.50 J	17 JAN 20	
	136.99 C	0	33.21%	.77	1.75	126.40 J	131.00 B	17 JAN 20	
	130.92 I	0	32.87%	.75	1.82	119.60 J	123.90 J	17 JAN 20	
	114.19 C	-9.99	32.53%	.73	1.89	113.10 M	116.80 M	17 JAN 20	!
	106.00 Z	-11.40	32.31%	.71	1.95	106.90 M	110.30 M	17 JAN 20	!
	106.50 N	0	31.98%	.69	2.01	100.80 J	103.60 J	17 JAN 20	
	97.90 I	0	31.84%	.67	2.07	94.80 J	98.00 J	17 JAN 20	
	100.00 Q	0	31.74%	.65	2.12	89.10 J	92.70 B	17 JAN 20	
	87.00 P	0	31.57%	.62	2.16	84.10 J	86.80 J	17 JAN 20	:
	79.24 C	-2.66	31.39%	.60	2.20	78.90 M	81.50 M	17 JAN 20	!
	74.77 E	-3.23	31.43%	.58	2.23	74.10 M	77.20 M	17 JAN 20	(
	69.80 M	-4.50	31.24%	.56	2.25	69.20 M		17 JAN 20	(
	65.10 A	-3.80	30.72%	.54	2.26	64.30 M		17 JAN 20	(
	61.08 I	-3.42	30.72%	.51	2.27	60.70 J	62.10 M	17 JAN 20	
	57.10 A	-3.20	30.55%	.49	2.27	56.40 M		17 JAN 20	
	49.90 X	-2.70	30.27%	.45	2.25	48.80 M		17 JAN 20	
	42.40 A	-2.54	30.07%	.41	2.21	42.10 M		17 JAN 20	
	36.60 B	-4.57	29.91%	.37	2.15	36.40 J	37.50 M	17 JAN 20	
	31.50 M	-2.50	29.65%	.33	2.06	30.80 M		17 JAN 20	
	27.00 Z	-1.50	29.44%	.29	1.96	26.30 M		17 JAN 20	
	22.60 M	-1.50	29.54%	.26	1.85	22.30 M		17 JAN 20	
	19.30 W	-1.90	29.05%	.23	1.72	18.70 M		17 JAN 20	
	16.30 W	-3.70	29.45%	.20	1.62	15.50 M		17 JAN 20	
	13.70 H 11.60 W	-4.80 90	29.42% 28.88%	.18 .15	1.50	13.10 M 10.80 M		17 JAN 20 17 JAN 20	

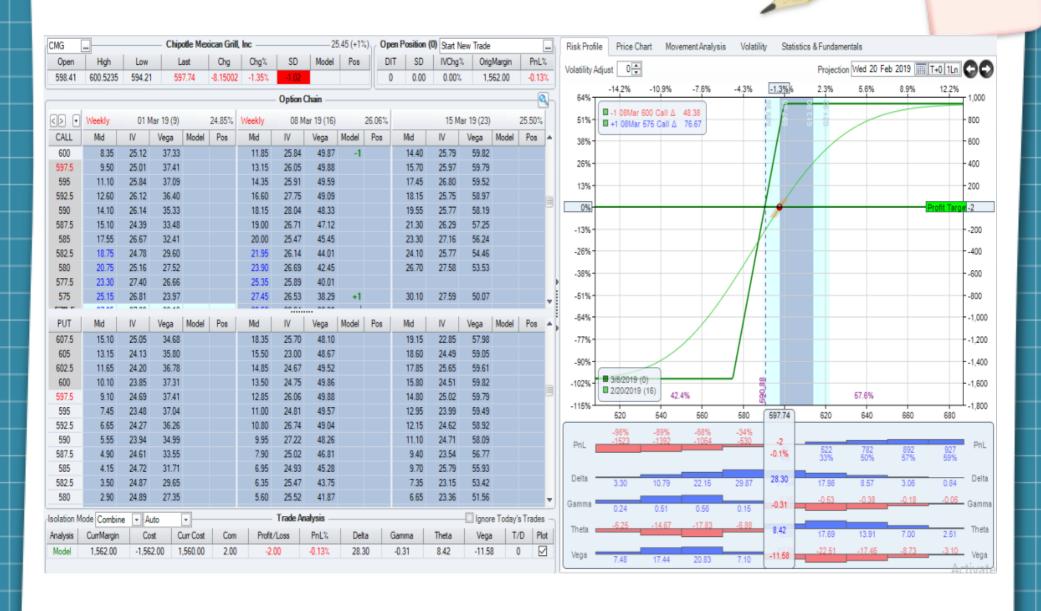
Why Do Traders Care?

- Options traders must consider many factors when setting up a trade
 - Price Risk
 - Time Decay
 - Volatility
- It is possible to set up a trade to take advantage of high or low volatility and try to benefit from a possible move.

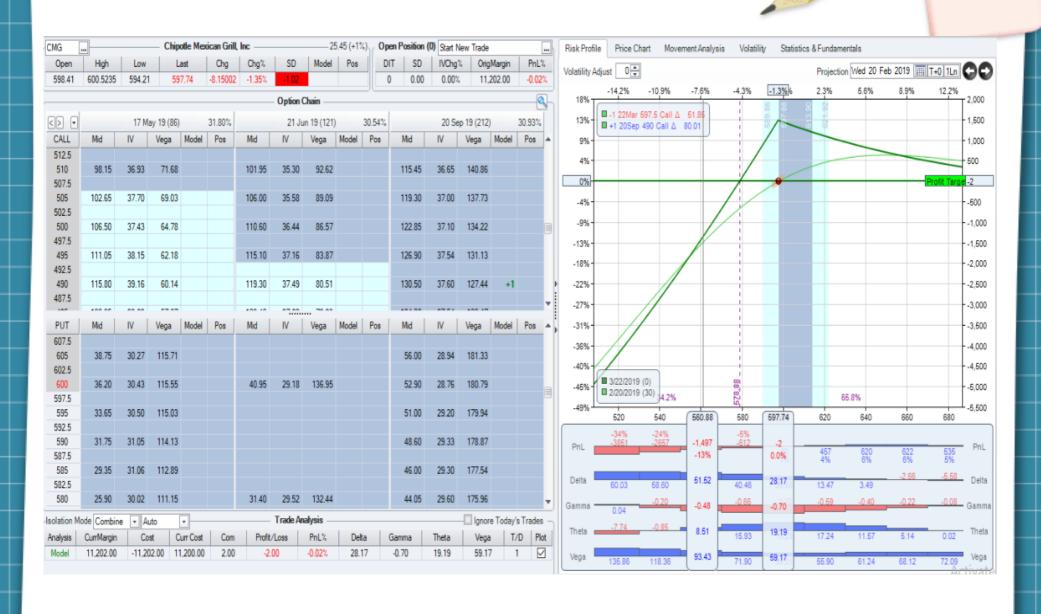
Ways To Think About Volatility

- Many options traders believe that volatility is meanreverting
- Look at historical volatility to see where in the range the underlying is currently
 - If high, consider being short volatility
 - If low, consider being long volatility
- Look at implied vols to take into account events like earnings
- There are no guarantees that the timing will work, but it's a good idea to try and trade with volatility in mind

Example: Negative Vega



Example: Positive Vega



Summary

- Vega measures the volatility risk of a trade
- It is highest ATM and higher further out in time
- While long options are always long vega and short options are always short vega, spreads can be configured to be either
- Traders should understand the historical and implied volatility of the underlying when setting up trades and undertand the volatility risk with other risks of the position

