

QUANTIFIABLE EDGES SUBSCRIBER LETTER

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

June 29, 2009

Volume 2 Issue 123

Market Overview

Summary of Recent Active Studies (see <http://QuantifiableEdges.blogspot.com> or Letters from listed dates for details)

Study Date	Description	Time span	Bias	Avg Max Move	Avg MM + 1/2 Std Dev
Active					
June 29, 2009	Low range and vol above 10ma	1-15 days	Bearish	-4.40%	-6.90%
June 26, 2009	2 Days 7:3 up issues - no 10 high	1-8 days	Bearish		
June 25, 2009	2 Days Up in Chop	1-4 days	Bearish		
June 24, 2009	Weak breadth on bounce	1-5 days	Bearish	-4.20%	-5.10%
June 23, 2009	1% drop with decliners dbl advancers	1-9 days	Bullish	2.90%	3.90%
Active - Long Term					
June 26, 2009	VIX:VXV drops below 0.9	2-5 months	Bearish		
June 22, 2009	VIX:VXV hits 100-day low	1-20 days	Bearish	-3.80%	-5.50%
June 11, 2009	4-day tight range above 10ma	1-20 days	Bullish	4.00%	4.80%
June 10, 2009	Nasdaq/NYSE Volume High	1-20 days	Bearish		
June 1, 2009	Nasdaq Relative Strength Leading		Bullish		
April 20, 2009	Low Nasdaq Weekly Vol Spyx	1-10 weeks	Bearish		
Dropped Tonight					
June 25, 2009	Strong breadth weak vol	1-2 days	Bearish		

If the avg max move is achieved it will appear in **bold and brown**. If the avg + 1/2 std deviation is achieved, the study will in **bold italic blue**.

Short-term Outlook (1-5 days) – updated 6/29 – bearish

The market barely budged on Friday. The range was tiny. The S&P and Dow finished down slightly and the Nasdaq was up slightly. Breadth was slightly positive as the NYSE Up Issues % came in at 57%. The Up Volume % was basically dead even at 50.07%. Volume rose with the Russell rebalancing contributing a nice chunk.

The Quantifinder was dominated by red (bearish studies) Friday night – an unusual occurrence for a down day. In fact the one study that showed up in green is one whose edge I described as “marginal at best”.

The bearish themes were concentrated primarily on 1) the low SPY and QQQQ volume, and 2) the low range, with both individually and in combination showing a bearish tendency when the market is trading above its short-term moving averages (10-day primarily tested). I’ve updated a few of the studies found by the Quantifinder below and added some new twists as well.

In the [March 30, 2009 Letter](#) I looked at the low range / low volume combination a few different ways. Below is an update of study #3 from that Letter.

SPY intraday range is the smallest in 20 days on the lightest vol in 20 days and close >10ma
Buy on close. Sell X days later. \$100k/trade. 1999 - present

X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Avg Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
15	-67,696.38	43	20	23	46.51	1,793.02	-4,502.47	0.40	0.35	-1,574.33
14	-62,082.34	44	25	19	56.82	1,727.87	-5,541.00	0.31	0.41	-1,410.96
13	-53,510.82	44	27	17	61.36	1,771.69	-5,961.55	0.30	0.47	-1,216.16
12	-47,190.94	45	26	19	57.78	1,653.40	-4,746.27	0.35	0.48	-1,048.69
11	-41,033.45	45	25	20	55.56	1,605.35	-4,058.36	0.40	0.49	-911.85
10	-45,269.19	45	23	22	51.11	1,732.23	-3,868.66	0.45	0.47	-1,005.98
9	-39,919.09	45	24	21	53.33	1,638.41	-3,773.38	0.43	0.50	-887.09
8	-27,252.66	47	26	21	55.32	1,678.28	-3,375.61	0.50	0.62	-579.84
7	-34,182.06	47	24	23	51.06	1,466.03	-3,015.95	0.49	0.51	-727.28
6	-26,856.94	47	25	22	53.19	1,368.90	-2,776.33	0.49	0.56	-571.42
5	-40,449.47	49	20	29	40.82	1,361.19	-2,333.56	0.58	0.40	-825.50
4	-37,457.97	49	21	28	42.86	1,111.82	-2,171.65	0.51	0.38	-764.45
3	-25,657.13	52	21	31	40.38	1,267.43	-1,686.23	0.75	0.51	-493.41
2	-20,184.33	53	21	32	39.62	956.95	-1,258.76	0.76	0.50	-380.84
1	-20,774.60	54	20	34	37.04	784.29	-1,072.36	0.73	0.43	-384.71

After the first week, the odds are about 50/50 as to whether the market will be trading higher or lower. The win/loss ratio is heavily skewed towards the bearish side, though. From a risk/reward perspective this study has bearish implications lasting quite a bit longer than just a week.

This next study last appeared in the May 6, 2009 nightly Subscriber Letter. It looked at what happened when extremely strong moves up (WR10) were immediately followed by an unusually quiet day (NR10). The narrow range day perhaps suggests a lack of enthusiasm with the move of the day before.

SPY closes up on the widest range in 10 days (WR10) then on the next bar posts the narrowest range in 10 days (NR10). Buy on close. Sell X days later. \$100k/trade. 4/1/98 - present

X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Avg Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
10	-11,628.82	11	5	6	45.45	638.70	-2,470.38	0.26	0.22	-1,057.17
9	-7,163.93	11	6	5	54.55	1,113.43	-2,768.90	0.40	0.48	-651.27
8	-10,601.99	11	5	6	45.45	1,443.97	-2,970.31	0.49	0.41	-963.82
7	-11,308.83	11	3	8	27.27	1,908.39	-2,129.25	0.90	0.34	-1,028.08
6	-14,853.98	11	4	7	36.36	593.22	-2,460.98	0.24	0.14	-1,350.36
5	-11,092.08	11	3	8	27.27	871.09	-1,713.17	0.51	0.19	-1,008.37
4	-9,155.71	11	2	9	18.18	1,232.57	-1,291.21	0.95	0.21	-832.34
3	-1,371.75	11	4	7	36.36	1,474.01	-1,038.26	1.42	0.81	-124.70
2	196.69	11	6	5	54.55	950.42	-1,101.16	0.86	1.04	17.88
1	1,741.31	11	7	4	63.64	747.27	-872.40	0.86	1.50	158.30

This study seemed to become especially bearish in the last 11 years. Four to six days out the bearish tendency has seemed to peak. Instances here are a bit low to put much faith in, but suggestive and notable none the less.

If I also add the extremely low volume to the mix (and test back a little further) the bearish tendencies strengthen even further.

SPY closes up on a WR10 then on the next bar posts an NR10 on the lowest volume in 10 days. Buy on close. Sell X days later. \$100k/trade. 1993 - present

X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Avg Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
5	-9,870.46	7	1	6	14.29	1,704.07	-1,929.09	0.88	0.15	-1,410.07
4	-9,419.43	7	1	6	14.29	1,725.46	-1,857.48	0.93	0.15	-1,345.63
3	-4,132.82	7	2	5	28.57	1,535.28	-1,440.67	1.07	0.43	-590.40
2	-1,479.09	7	3	4	42.86	1,552.13	-1,533.87	1.01	0.76	-211.30
1	-2,129.32	7	3	4	42.86	798.76	-1,131.40	0.71	0.53	-304.19

Again there's the problem of too few instances to be reliable, but I'd be remiss if I didn't at least show these results for consideration. Below is a list of all the instances with the 5-day exit criteria.

SPY closes up on a WR10 then on the next bar posts an NR10 on the lowest volume in 10 days. Buy on close. Sell 5 days later. \$100k/trade. 1993 - present

Date/Time	Signal	Price	% Profit	Run-up DrawDown
10/31/94	Buy	\$47.48	(2.13%)	\$0.00
11/07/94	Sell	\$46.47		(\$2,442.96)
05/13/99	Buy	\$137.34	(2.25%)	\$0.00
05/20/99	Sell	\$134.25		(\$3,610.88)
11/15/99	Buy	\$140.08	1.71%	\$2,081.96
11/22/99	Sell	\$142.47		\$0.00
07/28/03	Buy	\$99.86	(1.35%)	\$1,081.08
08/04/03	Sell	\$98.51		(\$2,862.86)
02/14/05	Buy	\$120.68	(1.72%)	\$645.84
02/22/05	Sell	\$118.60		(\$1,738.80)
09/30/05	Buy	\$123.04	(2.79%)	\$243.60
10/07/05	Sell	\$119.61		(\$3,954.44)
03/24/09	Buy	\$80.60	(1.34%)	\$3,348.00
03/31/09	Sell	\$79.52		(\$3,273.60)
06/26/09 open	Buy n/a	\$91.84 \$91.84	n/a	\$0.00 \$0.00

Also worth noting is that I've heard talk once again about possible end-of-quarter markup propping up the S&P and other indices in some way. A subscriber sent me a study he did over the weekend that suggested there was no edge to owning the S&P during the last day or two of the quarter. There is a bullish bias for the 1st day of a new month, though. This confirmed some studies I did on these subjects last year.

<http://quantifiableedges.blogspot.com/2008/03/what-are-chances-market-gets-marked-up.html>

<http://quantifiableedges.blogspot.com/2008/03/1st-trading-day-of-month-is-there-bias.html>

Tonight's **Aggregator** chart is below:



While there was a slight drift in both the green Aggregator and black Differential lines today, they both remain squarely in bearish territory. The green Aggregator line shows the net expectations over the next few days from the outstanding studies is negative. The black Differential line illustrates the fact that the SPX has outperformed expectations by a large degree over the last few days. Overbought with a bearish outlook is a configuration I prefer when looking for shorts and that configuration now remains in place. Having begun to scale in to a short position at the end of the week, I will look to add to that position should I find a favorable entry on Monday.

Intermediate-term Outlook (2 weeks – 2 months)– updated 6/29 – neutral (near turning bearish)

There is still a bit of a mix among the intermediate-term indicators. From a price standpoint the SPX seems to be stuck in a consolidation following a rally (March – May). It really hasn't gone hardly anywhere for about a month and a half. It's dangerous to get too bearish before you actually see price break down. The 875-880 area appears important to hold.

The Nasdaq/NYSE volume indicator continues to suggest an unhealthy amount of interest in Nasdaq stocks. I noted this indicator in a study a few weeks ago (listed in the

summary at the top of the Letter). It isn't one of my favorite indicators, though, because much of the suggestion from the indicators come from on time period – the 2000-2003 bear market.

Friday's nightly Subscriber Letter discussed the fact that the VIX:VXV Ratio had fallen below 0.9. This was a level that has historically suggested bearish consequences for the intermediate-term. I discussed a system first published in the 8/25/08 Letter that looked at shorting the market when the ratio fell below 0.9 and then covering on a move back over 1. Though the system required patience and the trades averaged about 2.5 months, the results were solidly bearish. All the trades are listed below:

VIX:VXV Ratio crosses below 0.9. Short S&P 500 on close. Cover when ratio crosses above 1. \$100k/trade 8/2002-present.				
Date/Time	Signal	Price	% Profit	Run-up DrawDown
01/02/03	Short	\$909.03	5.24%	\$5,425.20
01/24/03	Cover	\$861.40		(\$2,862.20)
08/12/03	Short	\$990.35	(5.38%)	\$999.00
11/17/03	Cover	\$1,043.63		(\$7,330.00)
01/16/04	Short	\$1,139.82	2.90%	\$2,953.65
03/11/04	Cover	\$1,106.79		(\$2,036.67)
03/25/04	Short	\$1,109.28	4.15%	\$4,234.50
08/12/04	Cover	\$1,063.23		(\$3,716.10)
08/25/04	Short	\$1,104.96	(2.28%)	\$1,329.30
10/29/04	Cover	\$1,130.20		(\$3,338.10)
12/09/04	Short	\$1,189.24	3.85%	\$3,974.88
04/15/05	Cover	\$1,143.43		(\$3,349.08)
06/02/05	Short	\$1,204.29	2.28%	\$2,995.47
10/13/05	Cover	\$1,176.84		(\$3,450.31)
11/25/05	Short	\$1,268.25	(2.91%)	\$1,755.78
05/01/06	Cover	\$1,305.19		(\$3,892.98)
07/03/06	Short	\$1,280.19	2.96%	\$3,023.28
07/13/06	Cover	\$1,242.28		\$0.00
08/16/06	Short	\$1,295.43	(8.01%)	\$457.38
02/27/07	Cover	\$1,399.14		(\$12,792.78)
06/19/07	Short	\$1,533.70	2.66%	\$2,805.40
06/26/07	Cover	\$1,492.89		(\$235.30)
10/09/07	Short	\$1,565.15	3.62%	\$4,762.17
11/01/07	Cover	\$1,508.45		(\$689.22)
12/20/07	Short	\$1,460.12	3.32%	\$3,327.24
01/04/08	Cover	\$1,411.62		(\$2,633.64)
05/12/08	Short	\$1,403.58	8.80%	\$9,342.18
06/30/08	Cover	\$1,280.00		(\$2,602.86)
08/21/08	Short	\$1,277.71	4.16%	\$4,717.44
09/09/08	Cover	\$1,224.54		(\$1,975.74)
06/25/09	Short	\$920.26	n/a	\$0.00
open	n/a	\$920.26		\$0.00

I then went on to examine how the VIX had performed over the same period. Below is an excerpt from Friday's Letter that discusses this:

I also decided to check performance if the same system was run against the VIX instead of the SPX. Obviously these trades could not have taken place since the VIX is not a traded index but it does let you know how the VIX performed. Note these are long trade instead of short.

VIX:VXV Ratio crosses below 0.9. Buy VIX on close. Sell when ratio crosses above 1. \$100k/trade 8/2002-present.

Date/Time	Signal	Price	% Profit	Run-up DrawDown
01/02/03	Buy	\$25.39	24.10%	\$24,100.56
01/24/03	Sell	\$31.51		(\$4,489.32)
08/12/03	Buy	\$17.94	3.68%	\$29,653.68
11/17/03	Sell	\$18.60		(\$11,984.10)
01/16/04	Buy	\$15.00	37.80%	\$37,929.54
03/11/04	Sell	\$20.67		(\$7,999.20)
03/25/04	Buy	\$17.88	6.71%	\$14,371.44
08/12/04	Sell	\$19.08		(\$27,904.08)
08/25/04	Buy	\$14.98	8.61%	\$12,615.75
10/29/04	Sell	\$16.27		(\$15,886.50)
12/09/04	Buy	\$12.88	37.73%	\$40,134.71
04/15/05	Sell	\$17.74		(\$15,370.74)
06/02/05	Buy	\$11.84	39.10%	\$45,180.75
10/13/05	Sell	\$16.47		(\$16,552.20)
11/25/05	Buy	\$10.88	15.26%	\$33,822.88
05/01/06	Sell	\$12.54		(\$6,709.43)
07/03/06	Buy	\$13.05	36.32%	\$36,624.36
07/13/06	Sell	\$17.79		\$0.00
08/16/06	Buy	\$12.41	47.54%	\$53,182.80
02/27/07	Sell	\$18.31		(\$24,335.16)
06/19/07	Buy	\$12.85	47.00%	\$47,003.28
06/26/07	Sell	\$18.89		(\$778.20)
10/09/07	Buy	\$16.12	43.98%	\$49,810.09
11/01/07	Sell	\$23.21		(\$248.12)
12/20/07	Buy	\$20.58	16.33%	\$18,075.48
01/04/08	Sell	\$23.94		(\$11,175.70)
05/12/08	Buy	\$17.79	34.63%	\$38,054.17
06/30/08	Sell	\$23.95		(\$11,073.37)
08/21/08	Buy	\$19.82	28.51%	\$29,563.70
09/09/08	Sell	\$25.47		(\$5,953.10)
06/25/09	Buy	\$26.36	n/a	\$0.00
open	n/a	\$26.36		\$0.00

Only one to pick bottom

Highest entry price

In every case the VIX was trading higher when the ratio crossed back above 1. There was only 1 instance out of the 15 where there wasn't at least some additional pullback. I also noted on the table above that this is the highest the VIX has ever traded when the

VIX:VXV Ratio initially dropped below 20. Fifteen for fifteen winners is fairly impressive and would seem worthy of a trade, especially considering some of the % returns of several of the trades above. The AVERAGE trade saw the VIX gain 28.5%.

While the VIX isn't tradable, options, futures, or the fairly new VXX etf are all possibilities.

I'm a little concerned that basis risk in the futures along with fund expenses may cause erosion in the VXX. My concern seems unfounded when you look at the performance since its inception at the end of January. Over that time the VIX has dropped 41% and the VXX only 32%. Still, while I think it could be worth a trade, I'm going to study the VXX a bit more tomorrow and perhaps ask some people with a better understanding of the complexities than me.

On Friday I shared the study and posed the following question to [Bill Luby of the VIX and More site](#) and [Adam Warner of the Daily Options Report](#).

“Do you believe VXX could be an appropriate intermediate-term trading vehicle, or does the structure of it suggest it is likely to erode over time (like a slow – motion Direxion triple ETF)?”

Their input was enlightening.

Bill did a nice job of explaining how the VXX worked and why it could suffer some erosion over time.

With the leveraged ETFs, the price decay is a function of volatility (and partly leverage). With VXX, things are a little different because they do daily rebalancing. The issue is one of term structure. In a contango (normal) environment, the VIX futures prices tend to slope upward the farther you go out in time to reflect greater uncertainty. When that happens, each day the VXX rebalances it sells 1/30 of the front month position and replaces it by adding 1/30 to the second month position at a higher price.

Right now that difference is about 75 cents, so we are talking something on the order of 2-3 cents per day ($1/30 * 0.75$) or maybe 50 cents per trading month.

Got it? So in a contango (normal) environment the VXX will likely see a small amount of erosion on a daily basis. Bill then goes on to say...

Of course the VIX is not always in contango. Sometimes the term structure is flat and sometimes it is in backwardation where the front month is more expensive than the back month (especially after a VIX spike). In these instances, the ETF would be making a profit in its daily roll/rebalance trade, as it would be selling the more expensive month (or at least 1/30 of that position) and replacing it with a cheaper month.

VIX futures were regularly in backwardation following the launch of VXX. Only recently has the term structure flattened out and started to go back to contango.

Adam also noted the VXX should see some erosion in a contango environment. He had some interesting thoughts about the current holiday schedule as well:

I'm a little skeptical of VIX/VXV around a holiday. VIX should act weak when a significant chunk of the 30 day period is early summer and pre-holiday blahs. It's 10 calendar days right now until July 6th. SPX traders will lower their bids ahead of anticipated slow trading stretches (remember real options have real time decay you need to offset). So it's overwhelmingly likely VIX will be higher in 10 days than it is now and the VIX/VXV ratio will increase as VXV will not lift as much (10 days decay is not as meaningful in a 90 day option).

In normal circumstances, VXX will track about 40-50% of the VIX move, but will it track it that well now? VXX represents a 30 day (hypothetical) VIX future. A VIX future itself just takes a snapshot of where the VIX will be on expiration day. A holiday between now and then has no impact. VIX July's as I type are about 29, a 2+ premium to the VIX. So you'd first have to make that up before profiting on the VIX.

Now here's the kicker though. I show July as the worst cycle of the year in terms of average and median VIX readings. But if I divide it into the first half of cycle and 2nd half (2nd half always just the last 2 weeks, so if it's a 5 week cycle the first 3 weeks are defined as "half") it almost always lifts in the 2nd half. Which makes perfect sense given the holiday in the middle and then earnings season kicking in at the end.

So you're going to see the VIX trough pretty soon and then lift. Will the VXX lift with it? That I'm not as sure of.

So the current calendar could take some of the edge off a possible VXX trade, since there is a chance it won't track the VIX as closely as usual.

They sum up by stating the following:.

Bill:

The bottom line is that the idea of slow-motion time decay is probably appropriate. Unlike leveraged ETFs, however, where absolute volatility (and direction) determine the rate of decay, for VXX it is the term structure of the VIX futures -- or the relative volatility if you will.

Adam:

If the next month out has a premium to the nearer one, seems like they'll dribble a modest amount away each day. That being said, it's not crude oil here, premiums are often very modest if at all, and the roll should be perpetual and not a one-off deal like in crude.

Long story short...I don't think there's a major ETN structural problem in using VXX.

Now in addition to VXX, there is also a longer-dated volatility ETF (similar to VXV in the VIX:VXV ratio). That ETF is VXZ. It struck me that perhaps one way to offset the

contango rolling risk in VXX might be to short VXZ at the same time. Bill informed me that he didn't believe you were allowed to short either of these. I called my broker to see if they were shortable and was told "not today". This does limit their usefulness quite a bit since they can really only be used 1) as a hedge or 2) as a bet on an increase in volatility. There's no way to bet on a decrease in volatility using these proxies.

I'm not going to track any official trade ideas based on VXX at the moment. I have put on a very small position myself for tracking purposes and may discuss any observations I have here after completion of the trade.

It's rare I discuss anyone else's work in the Subscriber Letter but both Bill and Adam really know their stuff. I encourage subscribers to check out their sites and should also let you know they are going to be publishing books. I'd be surprised if their books weren't both filled with nuggets such as those they provided above.

Catapult and Capitulative Breadth Statistics

(Catapult Presentation Part 1) (Catapult Presentation Part 2)

Open Catapult Triggers

BA – bought 1/3 @ \$43.14

BA – bought 1/3 @ \$41.32 limit

Catapult for ETF's Trades

none

Broad Market Large Cap CBI – 2(BA-2)

Sector CBI Breakdown (% of stocks with active catapult triggers within each sector.)

Index	ETF	CBI %	Index	ETF	CBI %
DJ US Broker Dealers	IAI	0.00	DJ US Energy	IYE	0.00
DJ US Insurance Index	IAK	1.56	DJ US Financial	IYF	0.37
DJ US Regional Banks	IAT	0.00	DJ US Financial Services	IYG	3.13
DJ US Utilities	IDU	0.00	DJ US Healthcare	IYH	0.00
DJ US Oil&Gas Expl & Prod	IEO	1.64	DJ US Industrial Sector	IYJ	1.14
DJ US Oil Equip & Svcs	IEZ	2.13	DJ US Consumer Goods	IYK	0.00
DJ US Pharmaceuticals	IHE	0.00	DJ US Basic Materials	IYM	0.00
DJ US Healthcare Providers	IHF	0.00	DJ US Real Estate	IYR	0.00
DJ US Medical Devices	IHI	0.00	DJ US Transportation	IYT	0.00
DJ US Aerospace & Defense	ITA	2.94	DJ US Technology Sector	IYW	0.54
DJ US Home Construction	ITB	0.00	DJ US Telecommunications	IYZ	0.00
DJ US Consumer Svcs	IYC	0.96	Nasdaq 100	QQQQ	0.00

Additional New Trade Ideas

A full listing of system triggers can be found at the [system triggers page](#) each night. I will cherry pick some of my favorite setups from the S&P 100 and ETF lists along with occasional other trade ideas to track below.

SPY –short ¼ index position @ \$92.75 limit on OPEN. I'll short a sizable gap up – otherwise – wait until the close.

*SPY – short ¼ index position @ \$91.85 limit ON CLOSE. Any higher close will also be viewed as a short opportunity. **This should only be active if the gap up entry does not trigger.***

Active Trades Table

Symbol	Entry Date	Entry Price	Current Pr	% Gain/L	Stop	Notes
BA (1/3)	6/24/2009	\$43.14	\$41.88	-2.92%		Catapult
BA (1/3)	6/25/2009	\$41.32	\$41.88	1.36%		Catapult
SPY	6/25/2009	\$91.15	\$91.84	-0.76%		
SPY	6/26/2009	\$92.00	\$91.84	0.17%		

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