

QUANTIFIABLE EDGES SUBSCRIBER LETTER

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

May 16, 2008

Issue 63

Market Overview

Summary of Recent Active Studies (see <http://QuantifiableEdges.blogspot.com> for details)

Study Date	Description	Time span	Bias
May 16, 2008	Equity P/C Avg Stretch (Letter)	1-5 Days	Bearish
May 13, 2008	1% Rally on Lowest Vol in 20	1-12 days	Bearish
May 12, 2008	5 Lower Lows near 50-day high	1-11 days	Bearish
May 7, 2008	Equity Put/Call Stretch (Letter)	1-8 days	Bullish
April 29, 2008	Narrow Range New High < 200	1-20 days	Bearish
April 20, 2008	Double-Strong Breath	1-30 Days	Bullish
February 1, 2008	FTD's Short-Term Implications	long-term	Bearish
March 17, 2008	Consumer Sentiment Stretch	1-12 months	Bullish

Short-term Outlook (1-5 days) –bearish – updated 5/16/08

Thursday was a truly interesting day in the market that left us a lot to consider. Prices rose across the board as the S&P 400, 500, 600 and Nasdaq all rose over 1%. Nasdaq volume came in higher but NYSE volume was disappointingly lower. Additionally, all of the aforementioned indices also closed at 4-month highs. The VIX spiked lower, closed at its lowest level of the year, and is stretched down significantly below its short-term moving average. In addition to all that, the CBOE put/call ratio closed at its lowest level since December 21st. In other words, there's a lot to digest tonight.

Let's start with the simple stuff. Historically, when a new 20-day high is hit on a move of 1% or greater, the market has chopped over the next 4 days. Results are positive but worse than random. If you throw in volume coming in lower than the day before to the equation, then the results remain choppy – only more so and for longer. Over the next 20 days returns oscillate between positive and negative.

In the [blog this afternoon](#) I showed how a VIX that is stretched more than 10% below its 10-day moving average did not necessarily make a good short trigger. While many traders view it as a sign of complacency, the market is normally in rally mode when it happens and expectations remain bullish until the oversold condition begins to wear off. Once it does begin to wear off, the advantage swings sharply to the bears. Looking at this setup with a time-based exit rather than price-based, results are mixed over the next week before turning positive.

Price, volume, and VIX action leaves us with little edge looking out the next several days. I did find an edge, though. It was in looking at the CBOE total put/call ratios. A couple of weeks ago I referred to some work by [Dr. Brett Steenbarger with regards to put/call ratios](#). He views them by taking a short-term moving average and normalizing against a longer term moving average. When the relationship gets out of whack, his work shows that market edges occur. Two moving average relationships he uses are the 10 day over the 200 day moving average and the 5 day over the 65 day moving average. Extreme stretches in either of these pairings can lead to outsized or subnormal returns.

Today I noticed extreme readings in both of these ratios. The 10-day average put/call ratio is now 15% below the 200-day average while the 5 day average is over 20% below the 65 day average. Looking back to 1996, which is as far as the put/call data goes, there have only been 13 other times when both of these ratios have been at such extremes at the same time. Shorting the market when this occurred and covering when either ratio drops back below those stated above (15% for 10/200 or 20% for 5/65) would have resulted in 11 winning trades out of 13. Statistically, 11 for 13 shows “probable significance”. The average winning trade was good for 1.4% while the average loser cost 0.9%. In all, gross gains were about 15.2% while gross losses were about 1.7%. This ratio creates a hefty 8.91 profit factor. All trades are shown in the table below.

#	Type	Date/Time	Signal	Price	% Profit
1	Sell Short	9/26/1996	Short	\$685.86	-0.21%
	Buy to Cover	9/30/1996	Cover	\$687.31	
2	Sell Short	5/28/1997	Short	\$847.21	0.84%
	Buy to Cover	6/4/1997	Cover	\$840.11	
3	Sell Short	11/25/1998	Short	\$1,186.86	0.85%
	Buy to Cover	12/4/1998	Cover	\$1,176.74	
4	Sell Short	12/7/1998	Short	\$1,187.70	3.92%
	Buy to Cover	12/14/1998	Cover	\$1,141.20	
5	Sell Short	12/24/1998	Short	\$1,226.26	-1.51%
	Buy to Cover	1/5/1999	Cover	\$1,244.78	
6	Sell Short	1/7/1999	Short	\$1,269.73	2.38%
	Buy to Cover	1/12/1999	Cover	\$1,239.51	
7	Sell Short	11/19/1999	Short	\$1,422.00	1.71%
	Buy to Cover	12/1/1999	Cover	\$1,397.72	
8	Sell Short	12/10/1999	Short	\$1,417.04	0.26%
	Buy to Cover	12/15/1999	Cover	\$1,413.33	
9	Sell Short	6/20/2003	Short	\$995.69	1.23%
	Buy to Cover	6/24/2003	Cover	\$983.45	
10	Sell Short	11/18/2004	Short	\$1,183.55	1.12%
	Buy to Cover	11/19/2004	Cover	\$1,170.34	
11	Sell Short	12/15/2005	Short	\$1,270.94	0.89%
	Buy to Cover	12/20/2005	Cover	\$1,259.62	
12	Sell Short	1/11/2006	Short	\$1,294.18	0.63%
	Buy to Cover	1/12/2006	Cover	\$1,286.06	
13	Sell Short	10/12/2007	Short	\$1,561.80	1.49%
	Buy to Cover	10/16/2007	Cover	\$1,538.55	

The current Aggregator vs. S&P 500 chart is posted below:



The green Aggregator line is now at its lowest point since the end of February. The Aggregator measures the expected return over the next three days based on the average estimates of all outstanding studies. Additionally, the three day S&P returns (dotted grey line) have outperformed expectations recently. This means the black line (difference between expectations and reality of the last few days) and green line are both becoming stretched in the same direction. When that happens I'll typically look to add exposure – in this case short.

I've scaled in to an S&P 500 index trade over the last two days and will continue to do so below based on the action of the market vs. the aggregator as well as the most recent CBOE system revealed above. Additionally there is one more system trade listed below.

Intermediate-term Outlook (2 weeks – 2 months) – slightly bearish – updated 5/12/2008

Friday the S&P 500 posted its 5th consecutive lower low. As was discussed on Thursday, market action after a series of lower lows has been made is typically bullish. Markets often revert to a mean and therefore the selloff is often followed by a bounce. I was therefore expecting to be able to run some studies suggesting bullish tendencies for the next several days. What I uncovered was much different than I expected.

Notable to me about the recent price action is that it came after the market had made a strong run-up and posted multi-month highs. A pullback under this scenario would *seem* to be constructive. History suggests otherwise.

Below is a summary of market action after the S&P 500 has made 5 lower lows:

<i>SPX makes 5 lower lows. Buy on close. Exit "X" days later. \$100k per trade. 1978-now</i>											
Days In	Net Profit	Trades	% Profitable	Winners	Max Win	Max Loss	Avg Win	Avg Loss	W/L Ratio	Avg Trade	Profit Factor
20	\$123,926.79	88	62.50	55	\$18,816.00	(\$19,471.86)	\$4,735.52	(\$4,137.17)	1.14	\$1,408.26	1.91
15	\$72,451.90	89	58.43	52	\$11,214.84	(\$19,032.09)	\$3,918.71	(\$3,647.80)	1.07	\$814.07	1.55
10	\$41,837.33	95	50.53	48	\$15,280.64	(\$20,174.85)	\$3,377.02	(\$2,558.72)	1.32	\$440.39	1.35
9	\$54,551.36	97	57.73	56	\$14,515.20	(\$20,165.22)	\$2,890.53	(\$2,617.53)	1.10	\$562.39	1.51
8	\$63,300.77	98	55.10	54	\$15,738.88	(\$16,916.70)	\$3,177.87	(\$2,461.47)	1.29	\$645.93	1.58
7	\$58,432.29	100	61.00	61	\$13,776.64	(\$23,831.04)	\$2,599.19	(\$2,567.14)	1.01	\$584.32	1.58
6	\$37,714.30	102	61.76	63	\$14,240.00	(\$27,683.04)	\$2,160.64	(\$2,523.23)	0.86	\$369.75	1.38
5	\$37,999.21	102	53.92	55	\$13,135.00	(\$9,109.98)	\$2,276.11	(\$1,855.03)	1.23	\$372.54	1.44
4	\$44,251.48	102	58.82	60	\$13,377.28	(\$7,005.12)	\$2,035.46	(\$1,854.19)	1.10	\$433.84	1.57
3	\$50,593.90	102	58.82	60	\$8,279.04	(\$5,206.08)	\$1,774.94	(\$1,331.02)	1.33	\$496.02	1.91
2	\$55,453.87	102	62.75	64	\$7,495.68	(\$4,296.24)	\$1,455.02	(\$1,018.04)	1.43	\$543.67	2.47
1	\$45,948.76	102	61.76	63	\$9,089.88	(\$2,264.50)	\$1,099.62	(\$598.14)	1.84	\$450.48	2.97

As I suggested above, it is generally bullish. Now let's break it down into times when the market has recently made a 50-day high and times when it hasn't:

<i>SPX makes 5 lower lows and does not hit a 50-day high within the last 6 days. Buy on close. Exit "X" days later. \$100k per trade. 1978-now</i>											
Days In	Net Profit	Trades	% Profitable	Winners	Max Win	Max Loss	Avg Win	Avg Loss	W/L Ratio	Avg Trade	Profit Factor
20	\$127,256.34	70	70.00	49	\$18,816.00	(\$19,471.86)	\$4,834.23	(\$5,220.05)	0.93	\$1,817.95	2.16
15	\$85,702.59	71	66.20	47	\$11,214.84	(\$19,032.09)	\$3,941.29	(\$4,327.74)	0.91	\$1,207.08	1.86
10	\$65,250.22	73	60.27	44	\$15,280.64	(\$20,174.85)	\$3,527.65	(\$3,102.29)	1.14	\$893.84	1.73
9	\$73,534.05	75	64.00	48	\$14,515.20	(\$20,165.22)	\$3,223.79	(\$3,007.70)	1.07	\$980.45	1.91
8	\$78,893.20	75	61.33	46	\$15,738.88	(\$16,916.70)	\$3,521.04	(\$2,864.64)	1.23	\$1,051.91	1.95
7	\$64,572.46	77	63.64	49	\$13,776.64	(\$23,831.04)	\$2,976.75	(\$2,903.15)	1.03	\$838.60	1.79
6	\$41,077.82	79	64.56	51	\$14,240.00	(\$27,683.04)	\$2,461.14	(\$3,015.73)	0.82	\$519.97	1.49
5	\$45,511.66	79	58.23	46	\$13,135.00	(\$9,109.98)	\$2,461.61	(\$2,052.19)	1.20	\$576.10	1.67
4	\$45,526.40	79	63.29	50	\$13,377.28	(\$7,005.12)	\$2,183.93	(\$2,195.52)	0.99	\$576.28	1.72
3	\$54,518.86	79	62.03	49	\$8,279.04	(\$5,206.08)	\$1,974.56	(\$1,407.81)	1.40	\$690.11	2.29
2	\$57,658.73	79	68.35	54	\$7,495.68	(\$4,296.24)	\$1,550.08	(\$1,085.24)	1.43	\$729.86	3.21
1	\$47,449.28	79	65.82	52	\$9,089.88	(\$1,714.79)	\$1,208.79	(\$570.66)	2.12	\$600.62	4.08

<i>SPX makes 5 lower lows and hits a 50-day high within the last 6 days. Buy on close. Exit "X" days later. \$100k per trade. 1978-now</i>											
Days In	Net Profit	Trades	% Profitable	Winners	Max Win	Max Loss	Avg Win	Avg Loss	W/L Ratio	Avg Trade	Profit Factor
20	(\$3,515.91)	23	39.13	9	\$8,138.90	(\$5,452.37)	\$3,350.68	(\$2,405.15)	1.39	(\$152.87)	0.90
15	(\$7,181.21)	23	39.13	9	\$7,157.40	(\$6,791.22)	\$3,313.50	(\$2,643.05)	1.25	(\$312.23)	0.81
10	(\$21,322.13)	23	21.74	5	\$2,862.96	(\$4,893.35)	\$1,794.25	(\$1,682.96)	1.07	(\$927.05)	0.30
9	(\$16,031.61)	23	39.13	9	\$2,573.55	(\$4,505.90)	\$1,119.89	(\$1,865.05)	0.60	(\$697.03)	0.39
8	(\$15,592.43)	23	34.78	8	\$2,679.76	(\$5,166.06)	\$1,204.67	(\$1,681.98)	0.72	(\$677.93)	0.38
7	(\$6,140.17)	23	52.17	12	\$2,020.16	(\$5,975.16)	\$1,057.50	(\$1,711.83)	0.62	(\$266.96)	0.67
6	(\$3,363.52)	23	52.17	12	\$2,309.60	(\$2,919.84)	\$883.52	(\$1,269.61)	0.70	(\$146.24)	0.76
5	(\$7,512.45)	23	39.13	9	\$2,607.50	(\$2,847.04)	\$1,327.98	(\$1,390.30)	0.96	(\$326.63)	0.61
4	(\$1,274.92)	23	43.48	10	\$2,838.40	(\$2,115.19)	\$1,293.11	(\$1,092.77)	1.18	(\$55.43)	0.91
3	(\$3,924.96)	23	47.83	11	\$2,475.51	(\$2,958.97)	\$885.76	(\$1,139.03)	0.78	(\$170.65)	0.71
2	(\$2,204.86)	23	43.48	10	\$3,047.41	(\$2,120.93)	\$941.70	(\$893.99)	1.05	(\$95.86)	0.81
1	(\$1,500.52)	23	47.83	11	\$1,242.90	(\$2,264.50)	\$583.54	(\$659.95)	0.88	(\$65.24)	0.81

The difference here is striking. When 5 lower lows occur immediately following an intermediate-term high, the expectation has been more downside in the coming weeks. All other times the expectation is for more upside.

I decided to test this another way to confirm these findings. Here I looked at any time the market made 5 lower lows but closed above its 20-day moving average. The implication here is that the run-up must have been quite strong if a 5-day pullback doesn't even take it below its 20-day simple moving average. Only 9 instances showed up. Results are below:

SPX makes 5 lower lows and close above 20ma. Buy on close. Exit "X" days later. \$100k per trade. 1978-now											
Days In	Net Profit	Trades	% Profitable	Winners	Max Win	Max Loss	Avg Win	Avg Loss	W/L Ratio	Avg Trade	Profit Factor
20	(\$6,377.78)	9	44.44	4	\$7,964.21	(\$9,766.44)	\$2,608.03	(\$3,361.98)	0.78	(\$708.64)	0.62
15	(\$8,497.33)	9	33.33	3	\$4,378.64	(\$7,820.28)	\$2,037.81	(\$2,435.13)	0.84	(\$944.15)	0.42
10	(\$2,060.14)	9	33.33	3	\$3,563.28	(\$3,022.92)	\$1,934.88	(\$1,310.80)	1.48	(\$228.90)	0.74
9	(\$2,056.73)	9	44.44	4	\$3,789.52	(\$3,336.12)	\$1,993.38	(\$2,006.05)	0.99	(\$228.53)	0.79
8	\$1,767.21	9	44.44	4	\$3,740.03	(\$2,300.99)	\$2,010.04	(\$1,254.59)	1.60	\$196.36	1.28
7	\$7,115.60	9	55.56	5	\$3,103.65	(\$1,007.16)	\$1,882.83	(\$574.64)	3.28	\$790.62	4.10
6	\$7,361.68	9	66.67	6	\$3,775.38	(\$1,602.72)	\$1,555.48	(\$657.06)	2.37	\$817.96	4.73
5	\$2,181.00	9	66.67	6	\$3,124.94	(\$2,579.04)	\$1,325.78	(\$1,924.56)	0.69	\$242.33	1.38
4	\$3,281.24	9	66.67	6	\$3,831.94	(\$4,174.20)	\$1,629.48	(\$2,165.21)	0.75	\$364.58	1.51
3	\$2,015.23	9	55.56	5	\$2,700.74	(\$2,635.20)	\$1,156.96	(\$942.39)	1.23	\$223.91	1.53
2	\$378.25	9	55.56	5	\$2,771.44	(\$4,296.24)	\$1,180.30	(\$1,380.81)	0.85	\$42.03	1.07
1	(\$913.70)	9	55.56	5	\$888.00	(\$2,205.07)	\$410.19	(\$741.16)	0.55	(\$101.52)	0.69

Tough to read too much into such a small sample size, but these are not bullish numbers. There's a brief bout of positive expectancy between day 2 and 6, but then the market then heads lower as in our other study.

My next thought was that 5 consecutive lower lows may simply be more predictive of a bounce when the market is in a potentially exhaustive situation. To test this I looked at the results if the market made a 50-day low rather than a 50-day high:

SPX makes 5 lower lows and hits a 50-day low. Buy on close. Exit "X" days later. \$100k per trade. 1978-now											
Days In	Net Profit	Trades	% Profitable	Winners	Max Win	Max Loss	Avg Win	Avg Loss	W/L Ratio	Avg Trade	Profit Factor
20	\$89,425.93	25	76.00	19	\$18,816.00	(\$8,467.20)	\$5,790.96	(\$3,433.72)	1.69	\$3,577.04	5.34
15	\$71,851.37	26	73.08	19	\$14,585.60	(\$7,592.80)	\$4,898.33	(\$3,030.99)	1.62	\$2,763.51	4.39
10	\$56,201.98	26	65.38	17	\$15,280.64	(\$3,865.06)	\$4,191.22	(\$1,672.08)	2.51	\$2,161.61	4.73
9	\$59,799.77	26	73.08	19	\$14,515.20	(\$2,494.88)	\$3,700.63	(\$1,501.75)	2.46	\$2,299.99	6.69
8	\$54,282.92	26	61.54	16	\$15,738.88	(\$6,227.14)	\$4,630.02	(\$1,979.73)	2.34	\$2,087.80	3.74
7	\$49,740.87	26	69.23	18	\$13,776.64	(\$4,305.68)	\$3,634.09	(\$1,959.10)	1.85	\$1,913.11	4.17
6	\$39,725.62	26	69.23	18	\$14,240.00	(\$5,212.80)	\$3,197.77	(\$2,229.28)	1.43	\$1,527.91	3.23
5	\$33,754.74	26	65.38	17	\$13,135.00	(\$4,713.60)	\$2,954.33	(\$1,829.88)	1.61	\$1,298.26	3.05
4	\$28,235.48	26	69.23	18	\$13,377.28	(\$7,005.12)	\$2,968.71	(\$3,150.17)	0.94	\$1,085.98	2.12
3	\$26,889.26	26	57.69	15	\$8,279.04	(\$5,206.08)	\$2,802.21	(\$1,376.72)	2.04	\$1,034.20	2.78
2	\$29,120.91	26	65.38	17	\$7,495.68	(\$2,176.32)	\$2,344.43	(\$1,192.70)	1.97	\$1,120.04	3.71
1	\$27,509.83	26	65.38	17	\$9,089.88	(\$1,398.34)	\$1,942.12	(\$611.79)	3.17	\$1,058.07	6.00

This confirmed my thought about 5 lower lows possibly being more effective near an exhaustive bottom.

In summary, it appears a strongly up- trending healthy market should not make lower lows for 5 days in a row. It just did, though, which suggests perhaps the up-trend is not so healthy.

Additionally, put/call ratios remain low. Recall my findings from last weekend's Letter which suggested difficult market conditions for as long as this was the case:

I first looked at the CBOE Equity Put/Call Ratio. My data went back to 8/31/04. Since that time through 4/25/08 when the 10-day MA of the equity put/call crossed below the 200-day, the S&P 500 has gained 293.61 points. It has gained 342.30 points when the 10ma is above the 200 and lost 48.69 points when the CBOE equity p/c 10ma is below the 200.

I then looked at the CBOE Total Put/Call Ratio. In this case the data went back to 8/6/96. In between 8/6/96 and 4/18/2008 the S&P 500 gained 728.01 points. In that time the 10ma over 200ma p/c formation gained 709.25 points and the 200ma over 10ma p/c formation gained only 18.76 points.

Most of the bullish studies that suggested solid market upside over the last month and a half are now dissipating. We now have four left in the summary shown at the top of the Letter. Three of those four will expire by the end of this week. If we don't get some action with bullish implications between now and Friday the only study remaining suggesting upside will be the Consumer Sentiment Stretch study from March 17th. This was a long-term study which doesn't provide significant influence on a day to day basis. The intermediate-term outlook is therefore moving from slightly bullish to slightly bearish. This means I will be demanding the best setups to take on long exposure and looking to trade a bit more aggressively from the short-side.

Catapult and Capitulative Breadth Statistics

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

Open Catapult Trades

none

Open Big 50 Trades

None

Open Catapult for ETF's Trades

None

Broad Market Large Cap CBI – 0

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	1.16
DJ US Insurance Index	IAK	0.00	DJ US Financial	IYF	0.68
DJ US Regional Banks	IAT	0.00	DJ US Financial Services	IYG	0.70
DJ US Utilities	IDU	0.00	DJ US Healthcare	IYH	1.41
DJ US Oil&Gas Expl & Prod	IEO	1.72	DJ US Industrial Sector	IYJ	0.00
DJ US Oil Equip & Svcs	IEZ	0.00	DJ US Consumer Goods	IYK	0.68
DJ US Pharmaceuticals	IHE	0.00	DJ US Basic Materials	IYM	0.00
DJ US Healthcare Providers	IHF	4.08	DJ US Real Estate	IYR	1.22
DJ US Medical Devices	IHI	0.00	DJ US Transportation	IYT	0.00
DJ US Aerospace & Defense	ITA	0.00	DJ US Technology Sector	IYW	0.00
DJ US Home Construction	ITB	0.00	DJ US Telecommunications	IYZ	0.00
DJ US Consumer Svcs	IYC	0.00	Nasdaq 100	QQQQ	0.00

Not much showing up here.

Additional New Trade Ideas

SPY – Short at \$143.00. I've been scaling into this trade with ¼ allocation at a time. Another ¼ goes on tomorrow if we get even a little upside.

IWP (Russell Midcap Growth) – Short @ \$114.53. This is the same system we used to short MDY two days ago. The trade idea is based on the following criteria: 1) IWP has closed above its 10-day simple moving average for at least 20 days in a row. 2) Today

IWP made its highest high since crossing above the 10ma at least 20 days ago. 3) IWP closed above its upper Bollinger Band (default 20ma, 2 std dev).

Shorting the next day with today's close as the limit price and then covering on a close below the 10-period MA would have produced the following results in the 104 ETF's in my high liquidity watchlist over the last 10 years:

Trades	128
Winners	102
Losers	26
Pct Winners	79.7%
Avg Win	2.20%
Avg Loss	-3.64%
Avg Trade	1.01%
Profit Factor	2.4

The setup has occurred only once in IWP. That entry was 1/20/04 and the exit was on 1/28/04. The IWP short earned about 1.6% in this instance.

Additional Trades Active Table

Symbol	Entry Date	Entry Price	Current Price	% Gain/Lo	Stop	Notes
SPY(S)	5/14/2008	\$141.09	\$142.53	-1.02%		bought on open
MDY(S)	5/14/2008	\$158.66	\$160.36	-1.07%		exit on close < 10ma
SPY(S)	5/15/2008	\$142.00	\$142.53	-0.37%		bought on open

Stocks and ETF's on my Radar

none

Notable S&P 500 stocks outside my "tradable" radar

Oversold

none

Overbought

None

This report has been prepared by Hanna Capital Management, LLC and is provided for information purposes only. Under no circumstances is it to be used or considered as an offer to sell, or a solicitation of any offer to buy securities. While information contained herein is believed to be accurate at the time of publication, we make no representation as to the accuracy or completeness of any data, studies, or opinions expressed and it should not be relied upon as such. Robert Hanna, Hanna Capital Management, LLC or clients of Hanna Capital Management, LLC may have positions or other interests in securities (including derivatives) directly or indirectly which are the subject of this report. This report is provided solely for the information of Hanna Capital Management, LLC clients and prospects who are expected to make their own investment decisions without reliance upon this report. Neither Hanna Capital Management, LLC nor any officer or employee of Hanna Capital Management, LLC accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or its contents. This report may not be reproduced, distributed or published by any recipient for any purpose without the prior express consent of Hanna Capital Management, LLC.