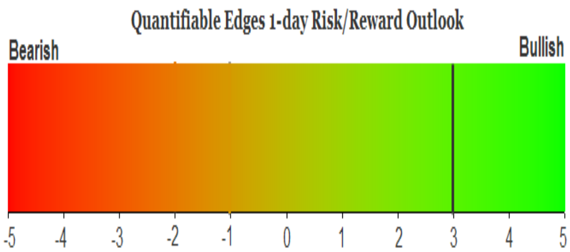
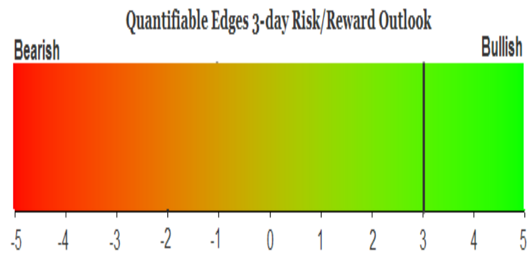
QUANTIFIABLE EDGES SUBSCRIBER LETTER

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

February 1, 2010 Volume 3 Issue 20

Market Overview





Tonight's Research Points

- The 1st day of the month carries a seasonally bullish bias.
- The 1st day of month bias is increased when the previous month closes down th last 2 days.
- 4 lower lows while the SPX is above its 200ma has historically had bullish short-term implications. Even more so when it coincides with a 20-day low like now.
- Failed gaps up in SPY that also close poorly on the day have led to short-term upside.
- The Ratio Adjusted McClellan Oscillator remaining below -60 for six days in a row has led to short-term struggles and intermediate-term selling.
- The SPY average true range has expanded to a point that has often been followed by upside.
- The Nasdaq/S&P 500 indicator tracked on the charts page now shows the S&P leading. The effectively changes the signal from bullish to neutral.
- The Aggregator System remains long.

***Short-term Outlook** – updated 2/1*

The Bottom Line

Despite overbought conditions and numerous studies and indications suggesting the market should bounce the selloff has continued. At some point soon we should see a strong multi-day rally here. The Aggregator and most short-term indications suggest a bounce. We are well outside of historical norms right now, though.

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

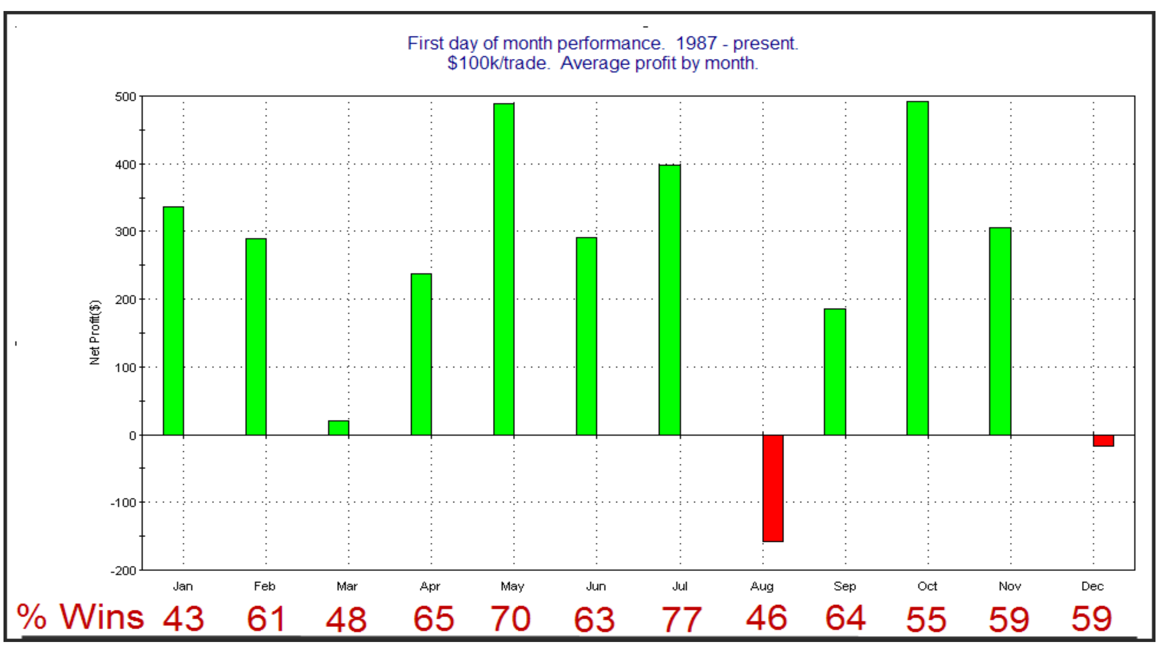
Study Date	Description	Time span	Bias	Avg Max Move
Active				
February 1, 2010	4 Lower Lows & 20-day low	1-8 days	Bullish	2.50%
February 1, 2010	Failed Gap Up Bottom 10% Close	1-8 Days	Bullish	4.50%
February 1, 2010	1st Day of Month	1 day	Bullish	
January 29, 2010	Outside day down bottom of range	1-6 days	Bullish	2.40%
January 28, 2010	False Breakdown >200ma & <10ma	1-5 days	Bullish	2.30%
January 25, 2010	VIX, price, or breadth studies	1-7 days	Bullish	4.20%
January 22, 2010	2:1 negative breadth for 2 days	1-8 days	Bullish	2.10%
Active - Long Term				
February 1, 2010	McClellan -60 for 6 days in a row	1-20 days	Bearish	
January 13, 2010	No bearish divergence at high	int. term	Bullish	
December 23, 2009	SPX and TNX hit 50-day high	1-10 weeks	Bearish	
Dropped Tonight				
December 7, 2009	Nasdaq Leading S&P	int. term	Bullish	

If the avg max move is achieved the study will appear in ***bold italic blue*** and no longer be active.

The Evidence

Another day another failed attempt to bounce. After gapping up to start the day the market moved higher for the 1st hour but then peaked. From 10:30 until 4pm selling dominated. The S&P and Russell 2000 lost 1%, and the Nasdaq dropped 1.5%. Breadth was solidly negative as the NYSE Up Issues % came in at 31% and the Up Volume % was 28%. Total volume rose on both exchanges.

There's quite a bit to talk about tonight. First I'll cover some seasonal tendencies that appeared in the Quantifinder. I've discussed numerous times before that the 1st trading day of the month has had a bullish tendency. I last went over it in detail in the July 2009 blog post. Below is a graphic from that post that broke it out by month:



February has been in line with most other months according to the graphic. Also notable is that the market has fallen the last two days of January. I looked at 2 down days to finish a month back in the October 1, 2009 letter. I've updated those results below.

SPX closes down the last 2 days of the month.
Buy on close. Sell X days later. $100k/trade. 12/31/86 - 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	50,754.21	51	36	15	70.59	2,152.88	-1,783.29	1.21	2.90	995.18
4	35,902.72	51	34	17	66.67	1,867.54	-1,623.16	1.15	2.30	703.97
3	29,245.79	51	33	18	64.71	1,664.22	-1,426.31	1.17	2.14	573.45
2	30,457.77	51	36	15	70.59	1,395.99	-1,319.87	1.06	2.54	597.21
1	18,240.55	51	34	17	66.67	1,031.36	-989.76	1.04	2.08	357.66

44 of 51 instances (86%) close above the entry price at some point in the next week.

So there seems to be some seasonal tug that could help out at least on Monday. How much that will matter in the face of recent declines remains to be seen. On top of the bullish studies we've seen over the last few days, I'm seeing some new price-based studies popping up. The SPX has now made 4 lower lows. In the May 9, 2008 blog I showed a study that examined 4 lower lows. It broke it out above and below the 200ma. Updated results above the 200ma are below:

SPX makes 4 consecutive lower lows but close above the 200ma.
Buy on close. Sell X days later. $100k/trade. March, 1983 - 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	52,275.86	102	61	41	59.80	2,325.99	-2,185.59	1.06	1.58	512.51
9	59,698.26	105	69	36	65.71	2,157.44	-2,476.81	0.87	1.67	568.55
8	65,888.04	108	72	36	66.67	2,114.69	-2,399.15	0.88	1.76	610.07
7	53,346.27	108	74	34	68.52	1,750.17	-2,240.18	0.78	1.70	493.95
6	65,378.31	113	77	36	68.14	1,618.35	-1,645.41	0.98	2.10	578.57
5	52,735.97	115	75	40	65.22	1,457.98	-1,415.32	1.03	1.93	458.57
4	51,331.00	115	74	41	64.35	1,382.80	-1,243.81	1.11	2.01	446.36
3	36,726.19	115	69	46	60.00	1,173.98	-962.58	1.22	1.83	319.36
2	30,196.53	115	69	46	60.00	913.77	-714.21	1.28	1.92	262.58
1	10,088.04	115	66	49	57.39	608.58	-613.84	0.99	1.34	87.72

Results here are fairly bullish. Not only have we made 4 lower lows, though, but the market is also making new intermediate-term lows. Using the 20-day time frame I filtered the above study a bit further to see how the results might change.

SPX makes 4 consecutive lower lows and today is the lowest low in 20 days. Close > 200ma.
Buy on close. Sell X days later. $100k/trade. March, 1983 - 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	45,139.33	39	27	12	69.23	2,297.24	-1,407.19	1.63	3.67	1,157.42
9	48,043.05	39	29	10	74.36	2,273.39	-1,788.54	1.27	3.69	1,231.87
8	50,790.91	39	30	9	76.92	2,247.80	-1,849.23	1.22	4.05	1,302.33
7	48,057.64	39	27	12	69.23	2,203.37	-952.78	2.31	5.20	1,232.25
6	39,656.17	40	30	10	75.00	1,725.70	-1,211.49	1.42	4.27	991.40
5	27,744.47	40	26	14	65.00	1,675.72	-1,130.30	1.48	2.75	693.61
4	26,626.07	40	25	15	62.50	1,643.66	-964.36	1.70	2.84	665.65
3	9,453.92	40	21	19	52.50	1,280.74	-917.98	1.40	1.54	236.35
2	9,070.01	40	23	17	57.50	917.58	-707.90	1.30	1.75	226.75
1	2,641.61	40	26	14	65.00	574.30	-877.87	0.65	1.21	66.04

35 of 40 instances (87.5%) closed above the entry price at some point in the next week.

What we see here is that when the selling is also accompanied by a new intermediate-term low, the bullish implications tend to be quite a bit stronger.

Another study that popped up with regards to the price action looked at failed gaps higher. This was found in the 5/12 and the 12/4 subscriber letters. I've updated the statistics again below.

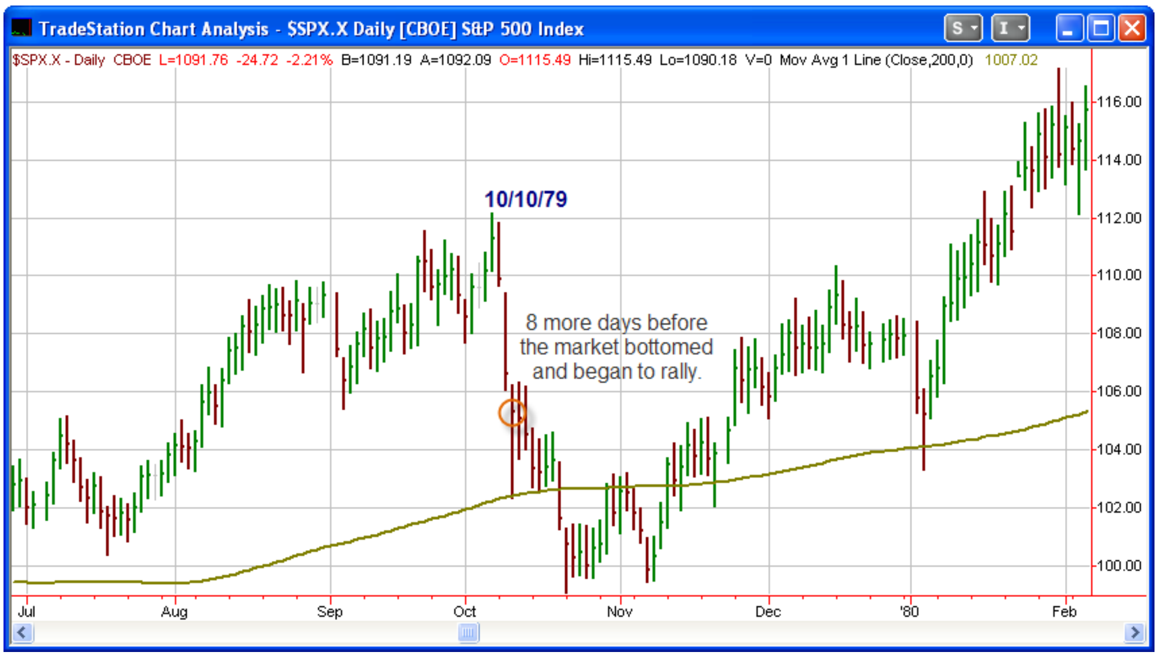
SPY gaps up at least 0.25%, makes a high at least 0.5% above the open, then closes down and in the bottom 10% of the daily range.
Buy on close. Sell X days later. $100k/trade. 1993 - present.

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
10	43,098.95	24	16	8	66.67	4,006.25	-2,625.13	1.53	3.05	1,795.79
9	42,859.86	24	17	7	70.83	3,850.92	-3,229.39	1.19	2.90	1,785.83
8	52,559.08	24	19	5	79.17	3,899.08	-4,304.70	0.91	3.44	2,189.96
7	40,749.25	24	19	5	79.17	3,627.84	-5,635.96	0.64	2.45	1,697.89
6	38,769.52	25	19	6	76.00	3,318.55	-4,047.16	0.82	2.60	1,550.78
5	41,199.48	25	19	6	76.00	3,293.67	-3,563.38	0.92	2.93	1,647.98
4	28,119.82	25	14	11	56.00	3,341.50	-1,696.47	1.97	2.51	1,124.79
3	29,136.26	25	16	9	64.00	2,834.37	-1,801.52	1.57	2.80	1,165.45
2	27,976.71	25	17	8	68.00	2,467.73	-1,746.83	1.41	3.00	1,119.07
1	7,398.01	25	15	10	60.00	1,328.35	-1,252.73	1.06	1.59	295.92

88% of instances closed above the entry price at some point in the next 4 days.

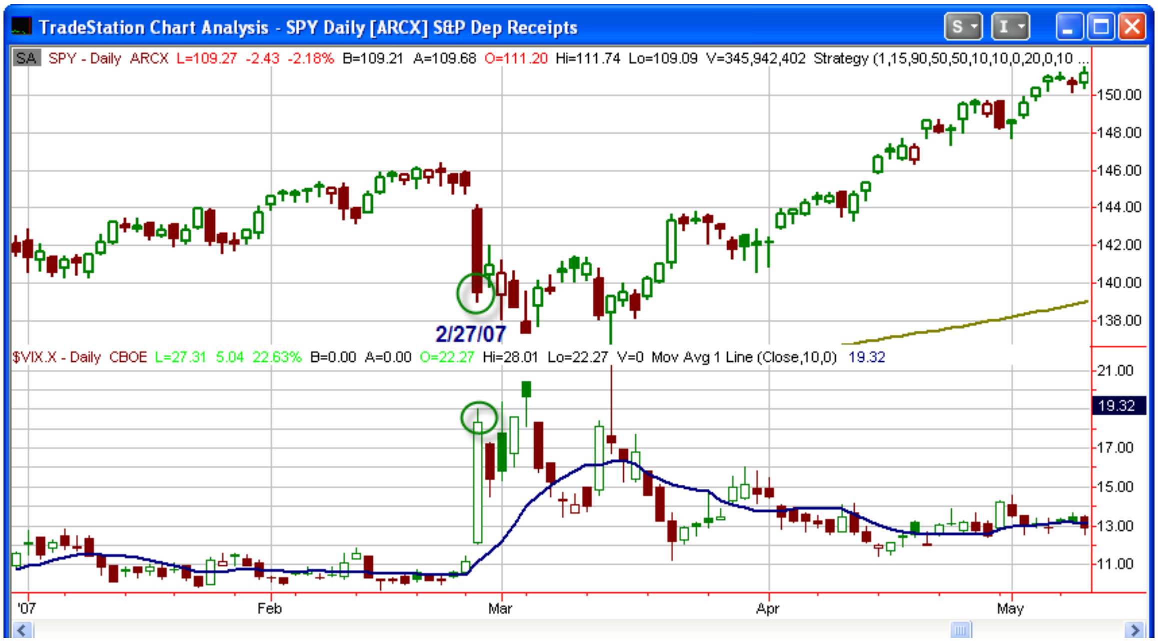
While such failures are often viewed as bearish using classic technical analysis, I've found strong bullish tendencies in cases like this and other similar studies over the years.

So again we see a good amount of evidence suggesting the market is likely to rise over the next few days. Obviously not everything is looking up, though. For one, the market has basically been ignoring all suggestions of a bounce for the last 6 days. Last weekend the selloff was already looking quite extreme based on sentiment, breadth, and price measures. Using the VIX, the McClellan Oscillator, and some simple price-based studies I was able to identify 14 other instances throughout history where the market pulled back to a similar degree from a high level. I also noted that while all of the 14 instances showed at least one of the characteristics I studied, none of them had seen all 3 occur as we were seeing at the time. Of the 14 instances shown, there were only 2 that failed to bounce in a meaningful way almost immediately. Below again are the 2 charts of the "failures".



In 1979 we saw a sharp pullback of at least 5% coming right after the market hit a 50-day high. In this "worst case" scenario the market dropped for an additional 8 days before bottoming and embarking on a new rally.

The 2nd "failure" was from 2/27/07. This pullback appeared because, like last week, it also led to a spike in the VIX that put it 40% above its 10ma.



This one actually began to put in a multi-day bounce after 4 days. The low was then retested a week later before the market's uptrend was resumed. So either the market begins to bounce here very shortly or we will be putting in a new "worst case" scenario.

This leads me to the bearish study that arose this weekend. It's quite rare to see breadth act this poorly for such a sustained period of time. I noted the low level in the McClellan Oscillator in last weeks study. Without a decent bounce this past week, the Ratio Adjusted McClellan Oscillator has remained below -60 now for 6 days in a row. I looked back at other times this has happened and found the following results:

Ratio Adjusted McClellan Index closes < -60 for six days in a row.
Buy SPX on close. Sell X days later. $100k/trade. 1970 - 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
20	-39,706.32	20	5	15	25.00	5,727.32	-4,556.20	1.26	0.42	-1,985.32
19	-34,239.59	20	8	12	40.00	3,411.60	-5,127.70	0.67	0.44	-1,711.98
18	-27,734.43	20	7	13	35.00	4,669.64	-4,647.84	1.00	0.54	-1,386.72
17	-36,623.08	20	7	13	35.00	3,905.90	-4,920.34	0.79	0.43	-1,831.15
16	-32,722.40	20	6	14	30.00	4,718.35	-4,359.47	1.08	0.46	-1,636.12
15	-29,838.81	20	6	14	30.00	4,819.00	-4,196.63	1.15	0.49	-1,491.94
14	-26,802.02	20	6	14	30.00	4,580.73	-3,877.60	1.18	0.51	-1,340.10
13	-21,334.15	20	6	14	30.00	4,224.47	-3,334.35	1.27	0.54	-1,066.71
12	-18,484.37	20	6	14	30.00	3,721.72	-2,915.33	1.28	0.55	-924.22
11	-16,132.95	20	7	13	35.00	3,143.17	-2,933.47	1.07	0.58	-806.65
10	-19,208.39	20	7	13	35.00	3,356.85	-3,285.10	1.02	0.55	-960.42
9	-16,544.68	20	8	12	40.00	2,497.11	-3,043.46	0.82	0.55	-827.23
8	-12,187.69	20	7	13	35.00	3,121.26	-2,618.19	1.19	0.64	-609.38
7	-17,685.73	20	6	14	30.00	3,404.01	-2,722.13	1.25	0.54	-884.29
6	-15,336.35	20	6	14	30.00	3,248.21	-2,487.54	1.31	0.56	-766.82
5	-21,511.80	20	8	12	40.00	2,382.18	-3,380.77	0.70	0.47	-1,075.59
4	-22,695.40	20	8	12	40.00	1,667.68	-3,003.07	0.56	0.37	-1,134.77
3	-24,695.33	20	8	12	40.00	1,479.87	-3,044.52	0.49	0.32	-1,234.77
2	-2,373.57	20	11	9	55.00	1,284.94	-1,834.21	0.70	0.86	-118.68
1	-2,124.17	20	11	8	55.00	763.54	-1,315.39	0.58	0.80	-106.21

85% of instances closed lower than the entry price at some point in the next 6 days.

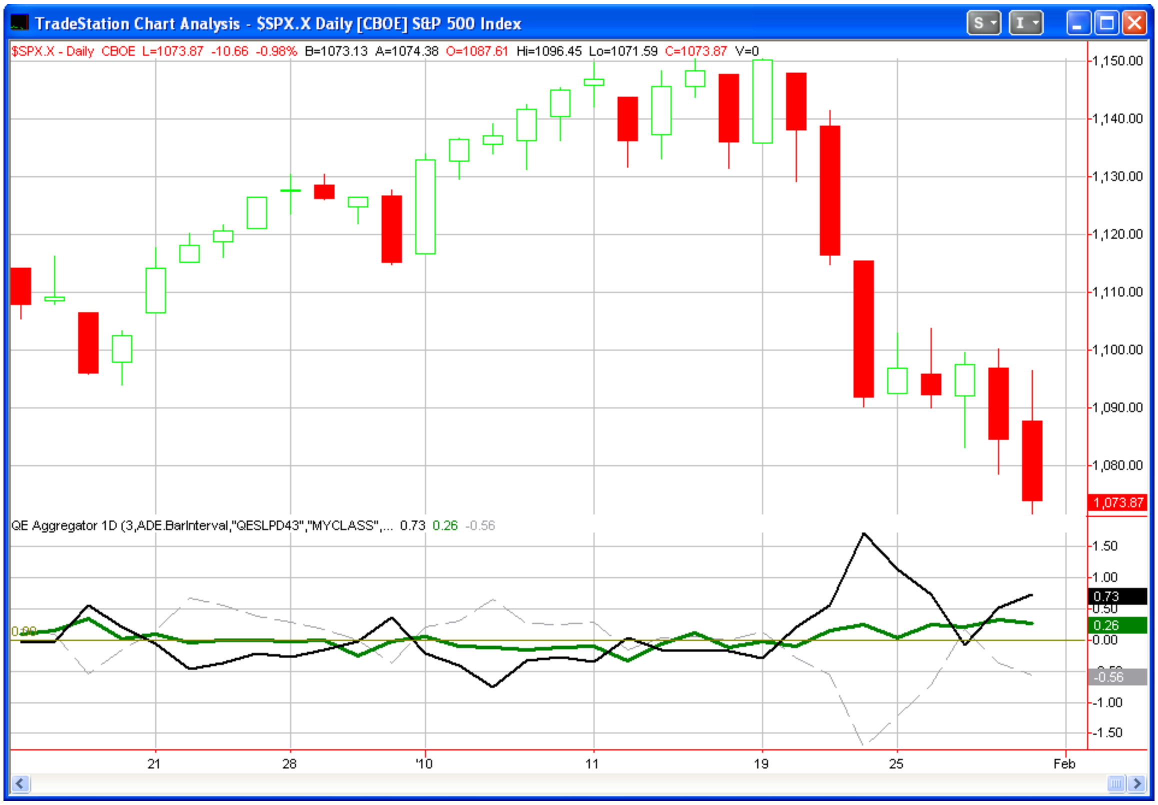
This test suggests bearish implications for both the short and intermediate-term. Four weeks later only 25% of instances were trading higher and the market was down 2% on average. The average losing trade was down 4.5% over the next 4 weeks.

When seeing this I thought, "But how often might you see such negative readings when the market is in an uptrend? Do such implications not hold true now because we are trading above the 200ma?" So, as with most things, I tested it:

Ratio Adjusted McClellan Index closes < -60 for six days in a row. SPX close > 200ma. Buy SPX on close. Sell X days later. $100k/trade. 1970 - 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
20	-18,034.18	10	2	8	20.00	5,163.49	-3,545.15	1.46	0.36	-1,803.42
19	-15,139.29	10	4	6	40.00	2,348.21	-4,088.69	0.57	0.38	-1,513.93
18	-15,034.09	10	3	7	30.00	3,195.75	-3,517.33	0.91	0.39	-1,503.41
17	-17,729.83	10	3	7	30.00	3,514.28	-4,038.95	0.87	0.37	-1,772.98
16	-16,290.90	10	3	7	30.00	3,423.87	-3,794.65	0.90	0.39	-1,629.09
15	-15,716.01	10	3	7	30.00	3,047.92	-3,551.40	0.86	0.37	-1,571.60
14	-7,884.76	10	3	7	30.00	3,568.33	-2,655.68	1.34	0.58	-788.48
13	-3,019.62	10	3	7	30.00	3,684.79	-2,010.57	1.83	0.79	-301.96
12	-3,585.36	10	4	6	40.00	2,961.94	-2,572.19	1.15	0.77	-358.54
11	-3,147.42	10	5	5	50.00	2,405.66	-3,035.14	0.79	0.79	-314.74
10	-2,742.08	10	4	6	40.00	2,740.63	-2,284.10	1.20	0.80	-274.21
9	-4,430.63	10	5	5	50.00	1,605.60	-2,491.72	0.64	0.64	-443.06
8	-1,511.92	10	5	5	50.00	1,817.18	-2,119.56	0.86	0.86	-151.19
7	-1,128.24	10	4	6	40.00	2,103.96	-1,590.68	1.32	0.88	-112.82
6	2,532.42	10	4	6	40.00	2,240.90	-1,071.86	2.09	1.39	253.24
5	-3,664.79	10	5	5	50.00	1,593.96	-2,326.91	0.69	0.69	-366.48
4	-1,882.27	10	5	5	50.00	1,054.77	-1,431.23	0.74	0.74	-188.23
3	-3,479.74	10	4	6	40.00	978.57	-1,232.34	0.79	0.53	-347.97
2	975.20	10	6	4	60.00	662.95	-750.62	0.88	1.32	97.52
1	2,247.56	10	7	3	70.00	508.23	-436.69	1.16	2.72	224.76

First, I was surprised to see that there has been a as many occurrences above the 200ma as below. Short-term implications no longer appear bearish, but instead are more random. Certainly not bullish though. Looking out over the next month it appears there is almost no difference between the cases above and below the 200ma. Consistently weak breadth as measured by the Ratio Adjusted McClellan Oscillator has led to consistently weak returns over the intermediate-term. I have therefore elected to include this study in the intermediate-term section of the active studies list and ignore short-term implications for now.

From a short-term perspective there is still a fair amount to absorb. I have updated the Aggregator chart below.



Not much change to the Aggregator formation from Thursday. We see the green Aggregator line is squarely above 0, illustrating the net bullish expectations from the active studies over the next few days. The black Differential line is also well above the flatline as the SPX has strongly underperformed expectations over the last few days. When the market is oversold versus expectations and current expectations are positive then that is considered a bullish configuration. Both lines above zero means the Aggregator System remains long from Thursday's close.

Looking ahead it will likely take a multi-day bounce from here in order to change the Aggregator formation. The green Aggregator line is set to remain bullish over the next several days unless some new short-term bearish studies begin to emerge and we see some bullish ones drop off. The pivot level for the black Differential line will be 1,102.36 on Monday. In other words it will take a close at or above this level in order to flip the black Differential line negative. That's almost a 3% move from where the SPX now stands.

Intermediate-term Outlook (2 weeks – 2 months)– updated 1/25 –neutral to bullish
Other than the McClellan Oscillator study mentioned in the short-term section tonight, there were a few other notables from an intermediate-term perspective.

First, the extremely sharp selling in the Nasdaq this week cause the Nasdaq/S&P 500 Relative strength indicator to move on Friday. The S&P is now exhibiting relative strength over the Nasdaq. This is not necessarily a bearish configuration, but rather neutral. Most of the market's gains over the years have come with the Nasdaq leading.

One study that popped up in the Quantifinder tonight looked at the fact that the 10-day average true range of the SPY had now increased to greater than 1.25 times the 100-day average true range. In the 9/29/08 Letter I looked at range expansions above certain levels. I've copied those results below (not updated):

SPY 10-day average true range crosses over X times the 100-day average true range. Buy on close. Sell 20 days Later. $100k/trade. 1993-present.												
X * Normal	Net Profit	Trades	Wins	Losses	% Wins	Max Win	Max Loss	Avg Win	Avg Loss	W/L Ratio	Profit Factor	Avg Trade
2	$8,894.13	4	4	0	100.00	$3,071.64	$0.00	$2,223.53	$0.00	100.00	100.00	$2,223.53
1.75	$44,244.60	12	10	2	83.33	$13,070.55	($1,394.86)	$4,701.15	($1,383.43)	3.40	16.99	$3,687.05
1.5	$48,433.58	23	15	8	65.22	$13,380.02	($7,534.80)	$4,728.97	($2,812.62)	1.68	3.15	$2,105.81
1.25	$53,265.08	47	29	18	61.70	$12,068.76	($19,949.25)	$3,867.86	($3,272.39)	1.18	1.90	$1,133.30

We see in the table that 1.25 times does suggest bullish implications, but if we see range expand even further then those implications would become even more bullish. Below is an updated detailed breakdown of the 1.25x level.

SPY 10-day average true range increases more than 1.25 times the 100-day average true range. 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
20	42,402.69	51	32	19	62.75	4,025.62	-4,548.28	0.89	1.49	831.43
19	59,194.70	52	33	19	63.46	4,219.49	-4,213.07	1.00	1.74	1,138.36
18	59,313.66	53	32	21	60.38	4,217.30	-3,601.89	1.17	1.78	1,119.13
17	57,372.38	53	32	21	60.38	3,816.66	-3,083.84	1.24	1.89	1,082.50
16	63,374.77	55	34	21	61.82	3,656.79	-2,902.67	1.26	2.04	1,152.27
15	55,842.46	56	36	20	64.29	3,289.32	-3,128.66	1.05	1.89	997.19
14	54,415.12	58	38	20	65.52	2,996.47	-2,972.54	1.01	1.92	938.19
13	53,240.29	60	34	26	56.67	3,324.11	-2,299.21	1.45	1.89	887.34
12	50,746.57	63	39	24	61.90	2,739.22	-2,336.79	1.17	1.90	805.50
11	34,126.50	64	37	27	57.81	2,582.76	-2,275.39	1.14	1.56	533.23
10	29,523.16	64	32	31	50.00	2,921.94	-2,063.83	1.42	1.46	461.30
9	38,052.35	64	35	29	54.69	2,492.01	-1,695.45	1.47	1.77	594.57
8	41,823.12	65	35	30	53.85	2,576.87	-1,612.25	1.60	1.86	643.43
7	44,150.85	66	39	27	59.09	2,516.20	-1,999.29	1.26	1.82	668.95
6	42,938.79	68	41	27	60.29	2,376.34	-2,018.20	1.18	1.79	631.45
5	31,192.10	73	42	31	57.53	1,892.94	-1,558.44	1.21	1.65	427.29
4	40,471.15	77	49	28	63.64	1,915.09	-1,906.01	1.00	1.76	525.60
3	46,899.95	79	51	27	64.56	1,770.34	-1,606.95	1.10	2.08	593.67
2	26,447.19	83	48	35	57.83	1,563.73	-1,388.91	1.13	1.54	318.64
1	21,336.25	83	50	33	60.24	1,271.74	-1,280.32	0.99	1.50	257.06

Implications are bullish, but not overwhelmingly so.

This pullback so far has been quite extreme. We are beginning to run low on historical comparisons. Additionally, we are now starting to see some signs that it could be negative for the intermediate-term. These include the McClellan Oscillator study from the short-term section and the switch in the Nasdaq/S&P Relative Strength model.

Despite this, I'm still of the opinion that it is unlikely a new bear market has begun. In the study of tops I referred to several times over the last few weeks we found that all previous major tops showed sign of a weakening market prior to the ultimate price high. This was seen using breadth indicators like the New 52-Week High % and the Advance/Decline line. In every case there was a divergence in place prior to ultimate high. There was no such divergence this time. It's now looking very possible that this current pullback may be a warning of things to come. The oversold studies should eventually kick in here and lead to a very sharp bounce. I would be surprised if the market didn't manage to hit new highs in the next few months. What very well may happen, and what traders should be careful to watch out for, is that the next high may come with a breadth divergence. Damage is already being done to the A/D line. When the price rises again, if this damage in unable to correct itself, we may THEN have the makings of a major top in place that could lead to the next big bear move.

Catapult and Capitulative Breadth Statistics

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

Open Catapult Triggers

none

Catapult for ETF's Trades

none

Broad Market Large Cap CBI – 0

Still no Catapults – and not much is even close.

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.

No new trade ideas tonight.

Active Trades Table

Symbol	Entry Date	Entry Price	Current Price	% Gain/Loss	Stop	Notes
SPY(1/4)	1/26/2010	$109.31	$107.39	-1.76%		Aggregator
VXX(s)	1/25/2010	$31.89	$31.64	0.78%		
SPY(1/4)	1/25/2010	$109.50	$107.39	-1.93%		Aggregator
SPY(1/4)	1/22/2010	$111.20	$107.39	-3.43%		Aggregator
SPY(1/4)	1/22/2010	$111.20	$107.39	-3.43%		Aggregator

VXX Trading System Discussion

While the SPY trade has taken it on the chin the last few days, the VXX trade is holding up very well despite the continued freefall of the SPX. VXX has just now been a traded security for one year. In that time it has steadily declined as volatility has fallen. But in reality it has done much worse than the VIX. On Jan. 30, 2009 the VIX closed at 44.84. Friday it closed at 24.62. This means it has dropped 45% over the last year. Much more dramatic than that is the action in the VXX. On 1/30/09 it closed at 104.58. On Friday it closed at 31.64 for a whopping 70% decline. As a security the VXX has performed horribly. Some of this may have to do with expenses associated with the ETF. Some of it has to do with its structure. When I asked Bill Luby of the excellent VIX and More site about VXX a while back he provided the following explanation…

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…

Bill then pointed out that this would effectively erode the price of VXX over time. He then explained further…

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…

So in a contango environment, erosion in VXX is expected. Although the amount of erosion we've seen is actually very large compared to what many people expected. I should also note that despite the recent VIX spike the futures are still in contango.

All these factors combine to make VXX a horrible security to trade from the long side, but in the right environment a VERY good one to trade from the short side. Let me demonstrate with a few simple examples. I've run all these strategy tests back to 1/30/09 which was the inception the VXX. One other thing to keep in mind here is that the VIX often has a high negative correlation to the SPX.

First let's look at how you would have done over the last year buying every 10-day low in the SPX and the selling when it closed at a 10-day high.

SPX closes at a 10-day low. Buy on close. Sell when SPX closes at a 10-day high. $100k/trade. Since 1/30/09.				
Date/Time	**Signal**	**Price**	**% Profit**	**Run-up DrawDown**
02/17/09	Buy	$789.17	(4.87%)	$1,059.66
03/12/09	Sell	$750.74		($15,419.88)
05/15/09	Buy	$882.88	3.11%	$4,714.36
05/26/09	Sell	$910.33		($369.51)
06/15/09	Buy	$923.72	0.38%	$462.24
06/29/09	Sell	$927.23		($3,764.88)
07/07/09	Buy	$881.03	5.86%	$5,979.96
07/15/09	Sell	$932.68		($1,323.23)
08/17/09	Buy	$979.73	4.74%	$4,881.72
08/21/09	Sell	$1,026.13		$0.00
09/02/09	Buy	$994.75	3.88%	$4,159.00
09/09/09	Sell	$1,033.37		($250.00)
09/25/09	Buy	$1,044.38	2.02%	$2,497.55
10/08/09	Sell	$1,065.48		($2,320.85)
10/26/09	Buy	$1,066.95	0.22%	$481.74
11/06/09	Sell	$1,069.30		($3,494.01)
01/21/10	Buy	$1,116.48	n/a	$0.00
open	n/a	$1,073.87		($3,995.21)
Average trade = 1.9% gain.				

Largely thanks to the incredible bull run since March this has been a very good strategy. The 1st trade was a tough one, though.

Now instead of using an SPX stretch as the trigger, lets use the VXX instead and see how that would've worked out.

VXX closes at a 10-day high. Buy SPX. Sell when VXX closes at a 10-day low. $100k/trade. Since 1/30/09 inception.

Date/Time	Signal	Price	% Profit	Run-up DrawDown
02/17/09	Buy	$789.17	(8.82%)	$1,059.66
03/10/09	Sell	$719.60		($15,419.88)
03/20/09	Buy	$768.54	11.45%	$11,488.10
04/09/09	Sell	$856.56		$0.00
06/17/09	Buy	$910.71	1.05%	$1,785.42
06/25/09	Sell	$920.26		($2,381.65)
08/17/09	Buy	$979.73	4.74%	$4,881.72
08/21/09	Sell	$1,026.13		$0.00
09/01/09	Buy	$998.04	2.74%	$2,803.00
09/08/09	Sell	$1,025.39		($607.00)
10/01/09	Buy	$1,029.85	2.41%	$2,977.90
10/06/09	Sell	$1,054.72		($960.30)
10/28/09	Buy	$1,042.63	4.84%	$4,799.40
11/09/09	Sell	$1,093.08		($1,258.75)
01/22/10	Buy	$1,091.76	n/a	$1,085.63
open	n/a	$1,073.87		($1,835.47)

Average trade = 2.6% gain.

Results here are very similar and some of the dates are even the same. Lastly, instead of trading the SPX let's use the above signal to trigger short trades in the VXX.

Short VXX when it closes at a 10-day high. Cover when it closes at a 10-day low. $100k/trade. Since 1/30/09 inception.				
Date/Time	Signal	Price	% Profit	Run-up DrawDown
02/17/09	Short	$107.09	1.63%	$3,853.29
03/10/09	Cover	$105.34		($12,045.03)
03/20/09	Short	$115.96	12.16%	$13,119.64
04/09/09	Cover	$101.86		($2,611.86)
06/17/09	Short	$78.95	10.18%	$10,710.36
06/25/09	Cover	$70.91		($1,253.34)
08/17/09	Short	$62.07	8.59%	$9,053.82
08/21/09	Cover	$56.74		($112.77)
09/01/09	Short	$62.36	10.09%	$10,195.08
09/08/09	Cover	$56.07		($609.14)
10/01/09	Short	$52.35	7.20%	$8,480.40
10/06/09	Cover	$48.58		($2,253.80)
10/28/09	Short	$46.17	9.12%	$9,352.80
11/09/09	Cover	$41.96		($8,097.10)
01/22/10	Short	$31.89	n/a	$5,548.95
open	n/a	$31.64		($2,664.75)
Average trade = 8.4% gain.				

Here we see a huge difference in the trades. Even the 1st trade changed from a 9% loss into a 2% gain. The rest all did significantly better using the VXX as well. What we're seeing is a result of increased beta combined with what could be described as a poorly designed deteriorating asset providing a short-side edge.

Obviously if the market goes into a nose dive a spike in VXX could be massive. Conservative position sizing and protective stops would seem very appropriate to protect against a volatility explosion. Working the short side using VXX in lieu of trading SPX based on an overbought VIX signal does seem to provide a substantial edge. Traders may want to consider putting this one in their bag of tricks.