

QUANTIFIABLE EDGES SUBSCRIBER LETTER

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

February 5, 2018

Volume 11 Issue 24

Market Overview



Signals Overview

Aggregator	Aggressive VIX
Long	100% Long XIV

Tonight's Research Points

- The stretched VIX is suggesting a bounce.
- VIX spikes over 20% in one day often suggest exhaustion and lead to a quick bounce.
- Fridays tend to have more severe overreactions and more reliable bounces than other days.
- A 4th Hindenburg Omen Triggered this week, which could be a prelude to an intermediate-term selloff.
- The SOMA experienced its biggest decline since 2011 this past week.

Short-term Outlook

The Bottom Line

Lots of evidence is emerging suggesting a bounce in the next few days. And the strong selloff has us strongly oversold. I am partially long and looking to get longer in anticipation of a bounce.

Summary of Recent Active Studies (see Letters from listed dates for details)

Study Date	Description	Time span	Bias	Avg Run-up	Avg DrawDn	Avg DrawDn - 1 Std Dev
Active - Short Term						
February 5, 2018	Dn 1.5x 20-day ATR	1-6 days	Bullish			
February 5, 2018	VIX 20% up on Fri	1-4 days	Bullish			
February 5, 2018	VIX 25% > 10ma	1-2 days	Bullish			
February 5, 2018	Down 1.5%+ 1st 2 days of month > 200	1-5 days	Bullish			
February 5, 2018	2% drop. 10-low. Bottom 10%. > 200	1-2 days	Bullish			
January 31, 2018	1st close < 10ma in over 15 days	1-5 days	Bullish			
January 31, 2018	Gap < 5-low. Close < open. Close > 200ma	1-6 days	Bullish			
January 29, 2018	VIX 100-day high. SPX > 100-day low	1-5 days	Bullish			
January 26, 2018	SPX 17 days > 5ma & 50-day high	1-12 days	Bullish	2.10%	-1.15%	-1.70%
Active - Long Term						
February 5, 2018	Hindenburg Omen Cluster	1-35 days	Bearish			
January 29, 2018	VIX 100-day high. SPX > 100-day low	1-15 days	Bullish			
January 16, 2018	NASDAQ Leading	int term	Bullish			
January 8, 2018	1st 4 days of year close higher	1-250 days	Bullish	15.90%	-5.70%	-11.10%
January 8, 2018	SOMA reduction intensifies to \$20 billion	int term	Bearish			
November 30, 2017	SPX 50-intraday high. NDX big down 50	1-50 days	Bullish			
November 29, 2017	SPX breaks 50-day Upper Bollinger Band	1-50 days	Bullish	4.85%	-4.10%	-7.80%
April 26, 2016	Golden Cross	int term	Bullish			
July 22, 2013	New High Divergence (Study of Tops)	int term	Bearish			

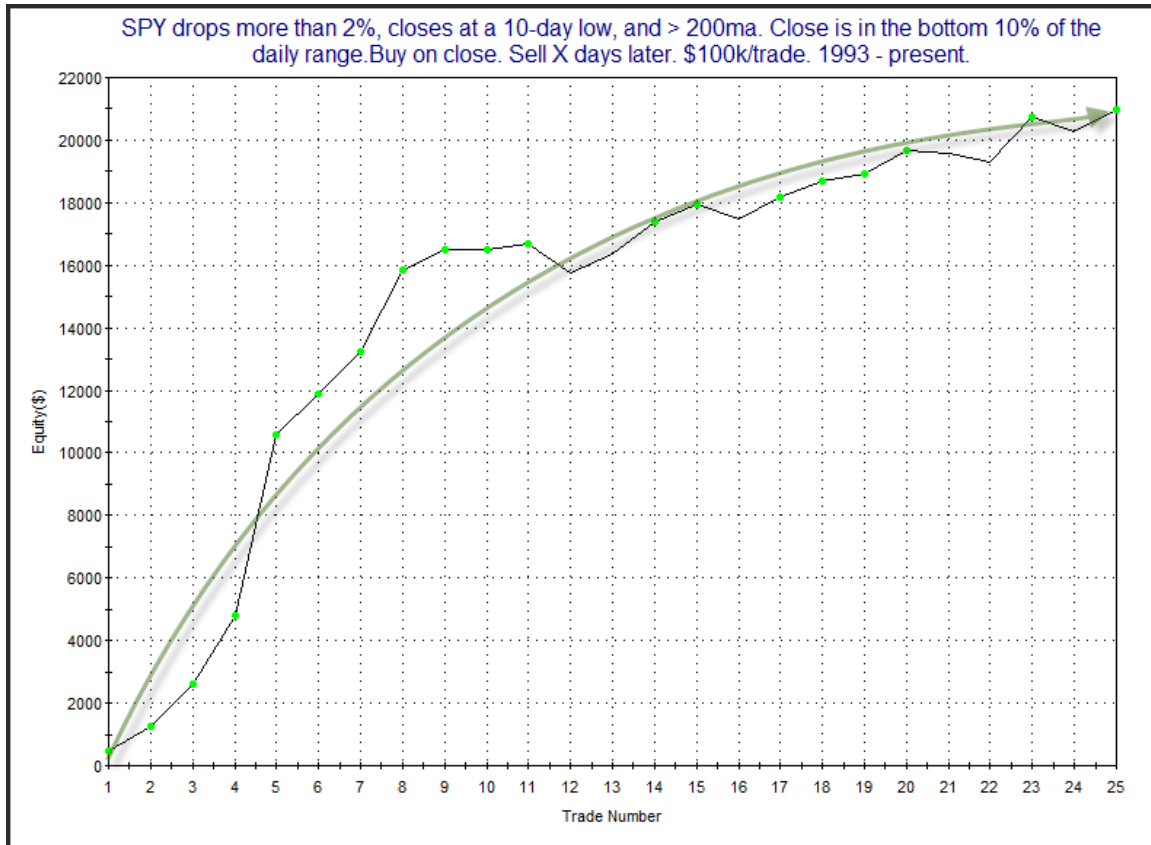
The Evidence

Friday saw the market take a tumble. The SPX lost 2.1%, the NASDAQ fell 2.0%, and the Russell 2000 dropped 2.1%. Breadth was very negative as the NYSE Up Issues % was 11% and the Up Volume % came in at 7%. NYSE volume rose from Thursday's level.

Strong selloffs to low levels during long-term uptrends often generate favorable buying opportunities. There were a number of studies in the Quantifinder tonight that exemplified this concept. And we also saw a few studies that examined the stretched VIX and possible implications there. This first study looked at the big drop on Friday. It was last seen in the 2/4/14 Letter.

SPY drops more than 2%, closes at a 10-day low, and > 200ma. Close is 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: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: Profit Factor	All: Avg Trade
10	24,183.68	22	13	9	59.09	4,171.83	9,282.24	-3,338.90	-14,007.15	1.25	1.80	1,099.26
9	36,253.40	24	16	8	66.67	3,756.74	7,585.77	-2,981.80	-10,036.80	1.26	2.52	1,510.56
8	33,270.41	24	17	7	70.83	3,826.52	7,858.26	-4,540.07	-14,030.10	0.84	2.05	1,386.27
7	37,746.85	24	18	6	75.00	3,338.33	8,324.13	-3,723.86	-8,047.80	0.90	2.69	1,572.79
6	39,702.04	25	18	7	72.00	3,107.69	7,873.02	-2,319.48	-7,910.10	1.34	3.45	1,588.08
5	37,533.79	25	17	8	68.00	2,852.29	8,239.74	-1,369.39	-3,388.95	2.08	4.43	1,501.35
4	29,868.22	25	19	6	76.00	2,230.07	5,581.02	-2,083.86	-3,909.15	1.07	3.39	1,194.73
3	30,697.73	25	17	8	68.00	2,295.20	5,117.85	-1,040.09	-2,145.14	2.21	4.69	1,227.91
2	27,501.50	25	19	6	76.00	1,704.29	5,477.88	-813.34	-1,290.50	2.10	6.64	1,100.06
1	20,955.03	25	20	5	80.00	1,162.75	5,764.38	-460.00	-916.56	2.53	10.11	838.20

The 1-2 days results here are especially intriguing. Below is a profit curve for a 1-day holding period.



The curve has flattened out some as of late but is still pointing higher.

Another study, from the 2/3/16 letter was interesting in that it examined strong drops that occurred at the beginning of a month. Strong drops early in a month are somewhat unusual, because this can often be a strong seasonal time – especially day 1. Tonight I adjusted that study a bit and added an uptrend filter.

SPY closes lower the 1st two days of the month and loses over 1.5% combined. Close > 200ma.
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: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
10	23,283.38	10	7	3	70.00	3,894.24	7,347.34	-1,325.44	-3,362.37	2.94	6.86	2,328.34
9	21,738.00	10	7	3	70.00	3,622.49	7,507.50	-1,206.48	-3,574.89	3.00	7.01	2,173.80
8	17,854.33	10	6	4	60.00	3,721.46	6,649.50	-1,118.61	-1,829.19	3.33	4.99	1,785.43
7	11,916.72	10	5	5	50.00	3,464.22	5,465.46	-1,080.88	-3,058.77	3.21	3.21	1,191.67
6	14,544.85	10	7	3	70.00	2,590.53	5,060.25	-1,196.28	-3,134.67	2.17	5.05	1,454.48
5	14,634.48	10	7	3	70.00	2,437.38	4,974.97	-809.07	-1,768.47	3.01	7.03	1,463.45
4	17,206.28	10	9	1	90.00	2,190.95	4,647.50	-2,512.29	-2,512.29	0.87	7.85	1,720.63
3	14,880.32	10	7	3	70.00	2,540.25	4,290.00	-967.15	-2,102.43	2.63	6.13	1,488.03
2	7,011.62	10	7	3	70.00	1,429.87	2,944.50	-999.16	-2,041.71	1.43	3.34	701.16
1	1,530.06	10	6	4	60.00	851.03	1,491.75	-894.03	-994.29	0.95	1.43	153.01

There are not a lot of instances, but the early results are very impressive. Below is the list of instances assuming a 4-day holding period.

SPY closes lower the 1st two days of the month and loses over 1.5% combined. Close > 200ma. Buy on close. Sell 4 days later. \$100k/trade. 1993 - present.

Date/Time	Signal	Price	% Profit	Run-up Drawdown
11/2/1994	Buy	\$46.69	0.32%	\$1,027.68
11/8/1994	Sell	\$46.84		(\$792.17)
8/4/1998	Buy	\$107.00	1.40%	\$3,353.06
8/10/1998	Sell	\$108.50		(\$1,316.94)
11/2/1999	Buy	\$134.59	2.53%	\$3,353.84
11/8/1999	Sell	\$138.00		\$0.00
1/4/2000	Buy	\$139.75	4.65%	\$5,119.40
1/10/2000	Sell	\$146.25		(\$1,787.50)
1/4/2005	Buy	\$118.83	0.14%	\$529.83
1/10/2005	Sell	\$119.00		(\$698.03)
3/2/2007	Buy	\$138.67	1.49%	\$1,795.29
3/8/2007	Sell	\$140.74		(\$966.14)
9/2/2009	Buy	\$99.82	3.92%	\$4,264.26
9/9/2009	Sell	\$103.73		(\$230.23)
10/2/2009	Buy	\$102.49	4.02%	\$4,563.00
10/8/2009	Sell	\$106.61		\$0.00
6/2/2011	Buy	\$131.73	-2.51%	\$0.00
6/8/2011	Sell	\$128.42		(\$2,694.45)
1/5/2015	Buy	\$201.72	1.25%	\$2,326.50
1/9/2015	Sell	\$204.25		(\$1,420.65)

2011 was the lone loser. Overall these results appear very impressive.

While the SPX declined sharply, the VIX index rose sharply. In fact, it closed 34% above its 10-day moving average. A study from the 9/12/16 letter examined stretches of 25% or more.

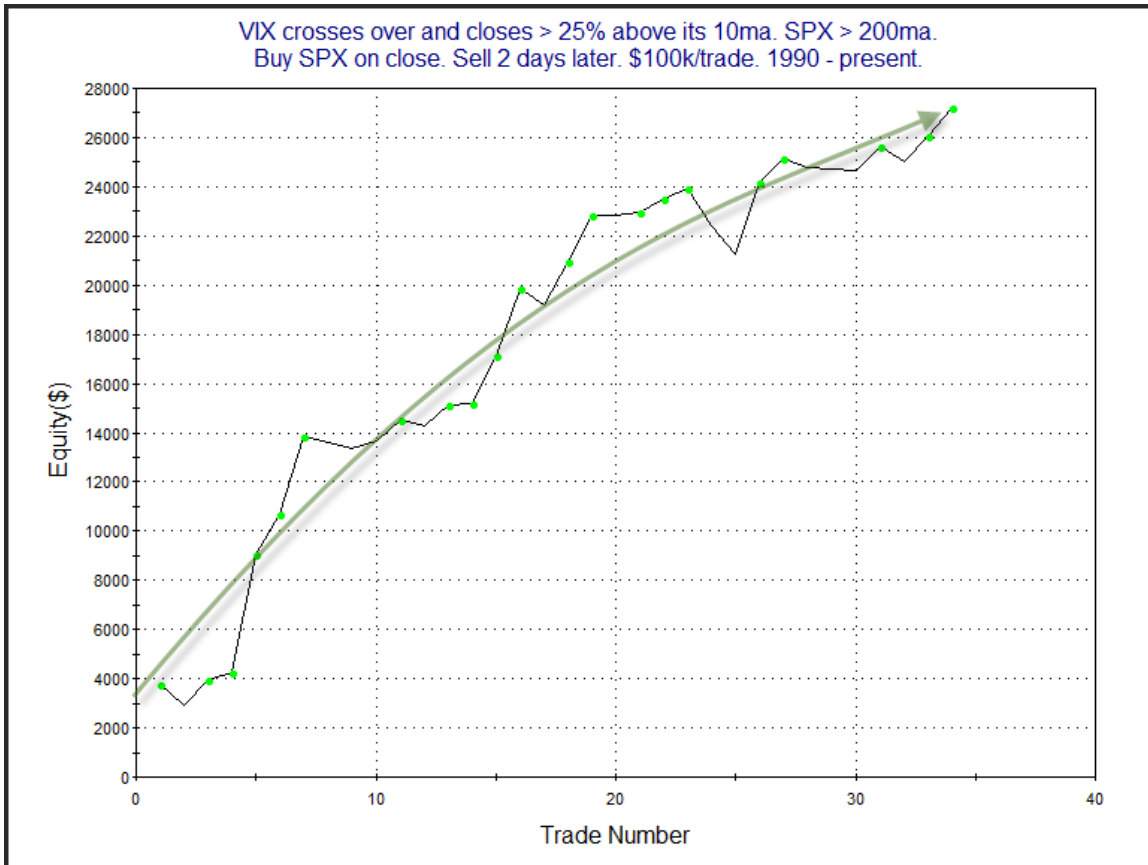
VIX crosses over and closes > 25% above its 10ma. SPX > 200ma.
Buy SPX on close. Sell X days later. \$100k/trade. 1990 - present.

X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
5	33,191.58	33	20	13	60.61	2,239.03	7,070.28	-891.46	-1,759.84	2.51	3.86	1,005.81
4	36,196.93	33	24	9	72.73	1,930.74	4,690.50	-1,126.76	-2,616.60	1.71	4.57	1,096.88
3	26,784.83	33	23	10	69.70	1,550.24	3,940.55	-887.07	-2,269.28	1.75	4.02	811.66
2	27,194.50	34	22	12	64.71	1,508.39	4,809.66	-499.16	-1,478.36	3.02	5.54	799.84
1	16,800.06	34	24	10	70.59	1,019.34	5,117.46	-766.42	-1,801.24	1.33	3.19	494.12

32 of 34 instances (94%) closed above the entry price at some point in the next week.

Very impressive consistency. Sizable bounces seem to have been the norm under these circumstances. Below is a profit curve that assumes a 2-day exit strategy.

VIX crosses over and closes > 25% above its 10ma. SPX > 200ma.
Buy SPX on close. Sell 2 days later. \$100k/trade. 1990 - present.



That is a nice move from lower left to upper right on the chart. I have included this study on the Active List also.

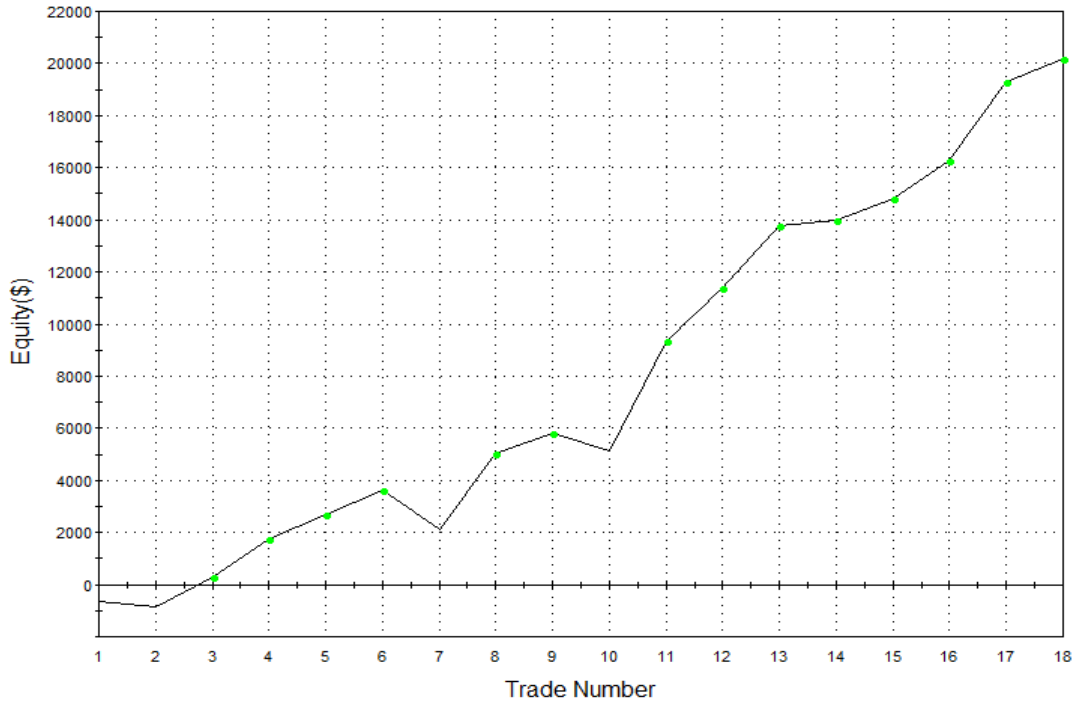
There were a few studies that noted the strong selling occurred on a Friday. Both the Crash of '29 and the Crash of '87 happened on Monday. The Crash of '87 is still remembered by some traders that are active today. In 1987 there was a strong selloff on Friday and then all hell broke loose on Monday. But since then strong Friday selloffs have commonly been followed by bounces. Perhaps this is due to the fact that fear of a crash causes what might otherwise be an ordinary selloff to become exaggerated and overdone on Fridays. Or perhaps it is just that people don't want to hold over the weekend. Whatever the reason, the tendency to bounce has been very strong. This first study looks at VIX spikes of over 20% and examines those times it occurred on a Friday.

VIX rises more than 20% on the last day of the week. Buy SPX on close. Sell X days later. \$100k/trade. 1990 - present.												
X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
5	18,555.02	18	13	5	72.22	1,743.59	3,216.85	-822.34	-1,693.89	2.12	5.51	1,030.83
4	20,191.53	18	14	4	77.78	1,657.56	4,190.40	-753.57	-1,501.61	2.20	7.70	1,121.75
3	11,290.51	18	11	7	61.11	1,640.70	5,471.10	-965.32	-1,821.35	1.70	2.67	627.25
2	7,432.02	18	12	6	66.67	1,161.68	4,041.90	-1,084.69	-5,163.50	1.07	2.14	412.89
1	4,033.01	18	14	4	77.78	824.18	4,396.50	-1,876.38	-3,884.00	0.44	1.54	224.06

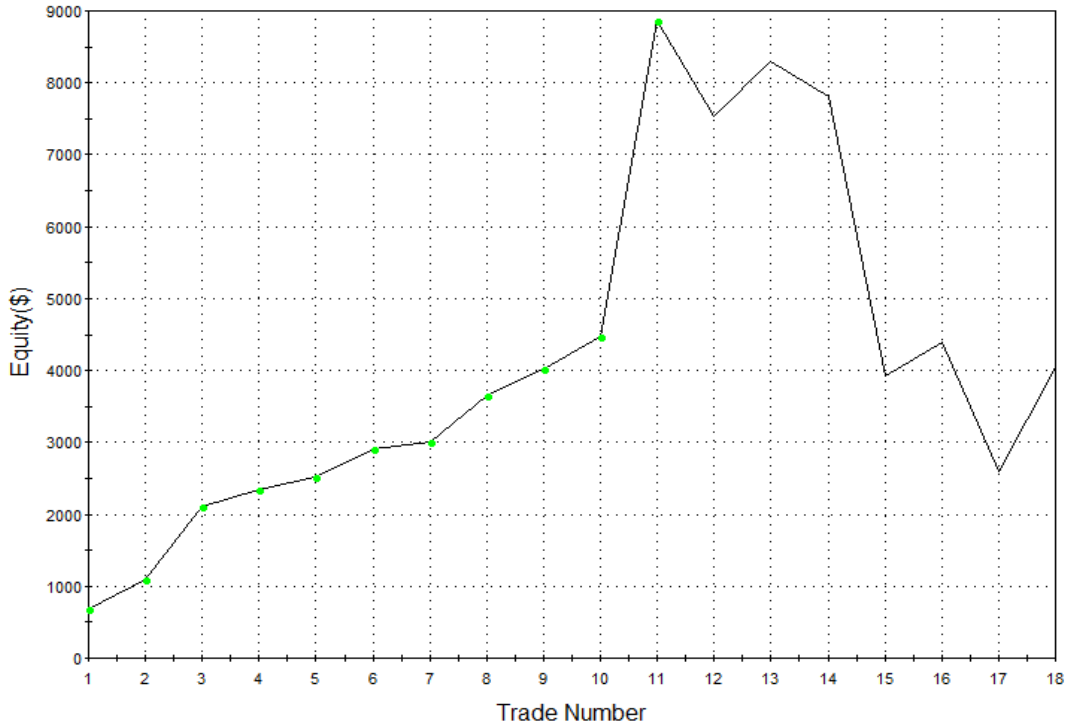
All 18 instances closed above the entry price at some point in the next week.

Results here are impressive over the next several days. Below are the 4-day and 1-day profit curves.

VIX rises more than 20% on the last day of the week.
Buy SPX on close. Sell 4 days later. \$100k/trade. 1990 - present.



VIX rises more than 20% on the last day of the week.
Buy SPX on close. Sell 1 day later. \$100k/trade. 1990 - present.

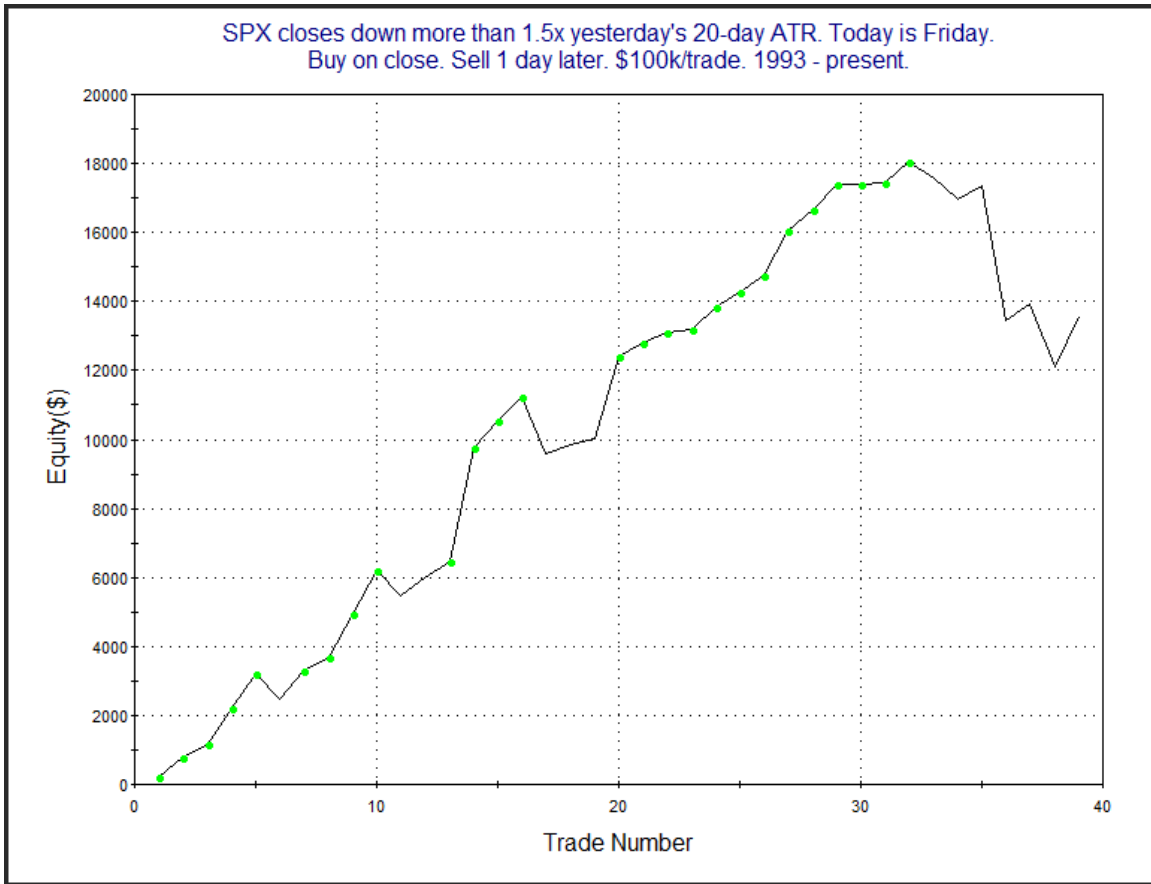


The 4-day looks great, while the 1-day has struggled as of late. So while the setup has not necessarily led to an immediate bounce in recent years, it appears one is likely nearby. I saw this with a few different studies tonight. Including the next one.

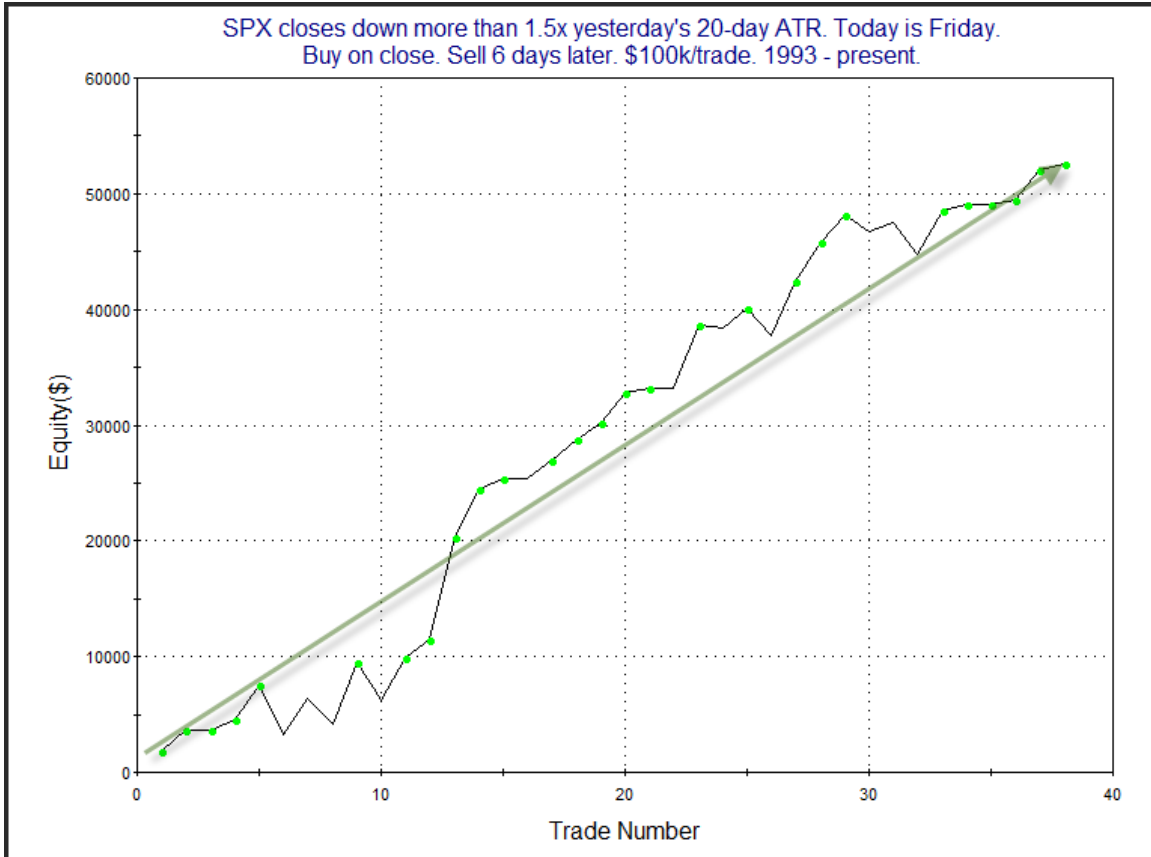
The study below also looks at strong drops on Fridays. It defines strong as more than 1.5x the recent (20-day) average true range. It was last discussed in the 12/15/14 subscriber letter and has been updated.

SPX closes down more than 1.5x yesterday's 20-day ATR. Today is Friday. 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: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
10	42,370.43	38	25	13	65.79	2,993.95	9,241.60	-2,498.34	-6,049.40	1.20	2.30	1,115.01
9	45,455.57	38	25	13	65.79	2,864.52	7,602.40	-2,012.11	-5,483.80	1.42	2.74	1,196.20
8	49,617.93	38	26	12	68.42	2,754.30	7,949.70	-1,832.82	-3,550.72	1.50	3.26	1,305.74
7	44,452.26	38	25	13	65.79	2,713.66	7,662.81	-1,799.17	-4,599.52	1.51	2.90	1,169.80
6	52,529.66	38	29	9	76.32	2,382.17	8,870.96	-1,839.24	-4,202.80	1.30	4.17	1,382.36
5	39,195.79	39	27	12	69.23	2,211.05	5,393.97	-1,708.55	-6,368.04	1.29	2.91	1,005.02
4	32,102.27	39	27	12	69.23	1,847.94	5,731.96	-1,482.68	-4,917.36	1.25	2.80	823.14
3	26,402.36	39	24	15	61.54	1,815.77	5,215.85	-1,145.08	-3,492.36	1.59	2.54	676.98
2	14,841.46	39	24	15	61.54	1,399.95	6,245.15	-1,250.49	-5,163.50	1.12	1.79	380.55
1	13,559.57	39	32	7	82.05	732.54	3,322.23	-1,411.69	-3,884.00	0.52	2.37	347.68

The numbers here are all very impressive and suggest a strong bullish bias. I decided to look at the 1-day and 6-day returns in a little more detail. First, below is the profit curve for a 1-day holding period.



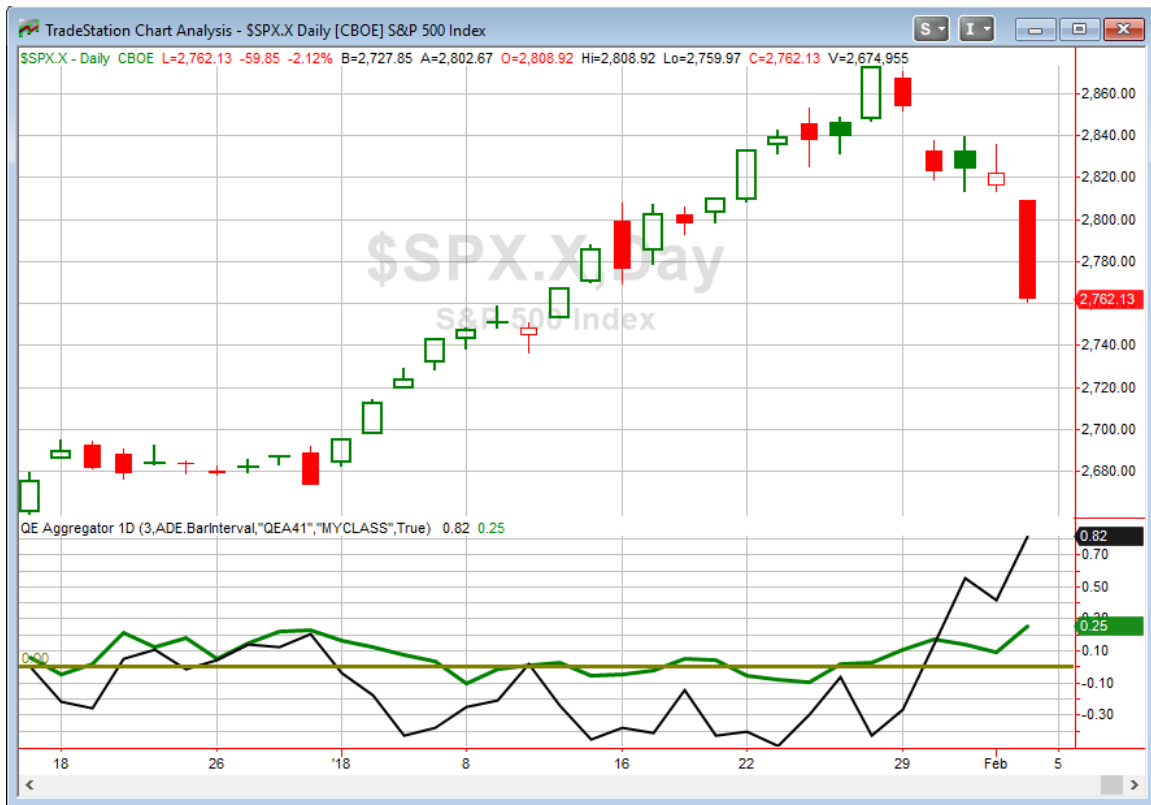
The Monday inclination has struggled recently, leaving the edge somewhat in doubt. But look at the 6-day curve.



This has continued to post new highs. Like the last study, it suggests while the bounce may not come immediately, it should not be long before it arrives.

Another notable from Friday is that 4 more Catapults triggered, and the Quantifiable Edges Capitulative Breadth Index (CBI) reached 6. Six is not a number I consider a very strong indication, but it is getting close. If selling continues on Monday, then there is a good chance the CBI could reach 10 or more. And 10+ has been a strong indication that a bounce is likely to occur within 1-3 days.

I have updated [the Aggregator chart](#) below.



With several bullish studies being added tonight, the green Aggregator line moved further above zero. Positive readings mean net expectations from the Active List are for upside over the next few days. Meanwhile, the black Differential Line is now very far above 0. The positive Differential Line reading means SPX is oversold versus recent expectations. So expectations are strongly positive and SPX is heavily oversold. This is considered a bullish configuration. Bullish configurations are visible on the chart whenever both lines close above 0. Therefore, the Aggregator signal stayed long at the close.

Based on the current list of active studies, expectations are slated to remain bullish on Monday. It would take some extremely compelling new bearish evidence to change that. The Differential Pivot will be 2834.09 on Monday. That is a whopping 2.6% above Friday's close. So SPX would need to close up at least 2.6% in order to flip from oversold to overbought on Monday. That's unlikely for a 1-day move. A more likely scenario for working off the oversold condition would be a multi-day bounce or consolidation.

So we have a lot of evidence tonight suggesting a bounce is very near. It may arrive Monday, but that is no certainty. I have a small amount of index exposure already and would like to increase it if I can get a favorable fill. I am not enthused about buying into a mid-day selloff in this emotionally charged environment. Therefore, I will look to buy at the open if we gap down and a bargain price is offered. Otherwise, I will wait for the close

and be a buyer of any lower close for SPY. I am also looking to take on some Catapult positions on Monday. So I like the long side and am positioning to take advantage of a bounce in the next few days.

Intermediate-term Outlook (2 weeks – 2 months) – updated 2/5– somewhat bullish

Combo #1	Combo #2	Combo #3
Long	Long	Long

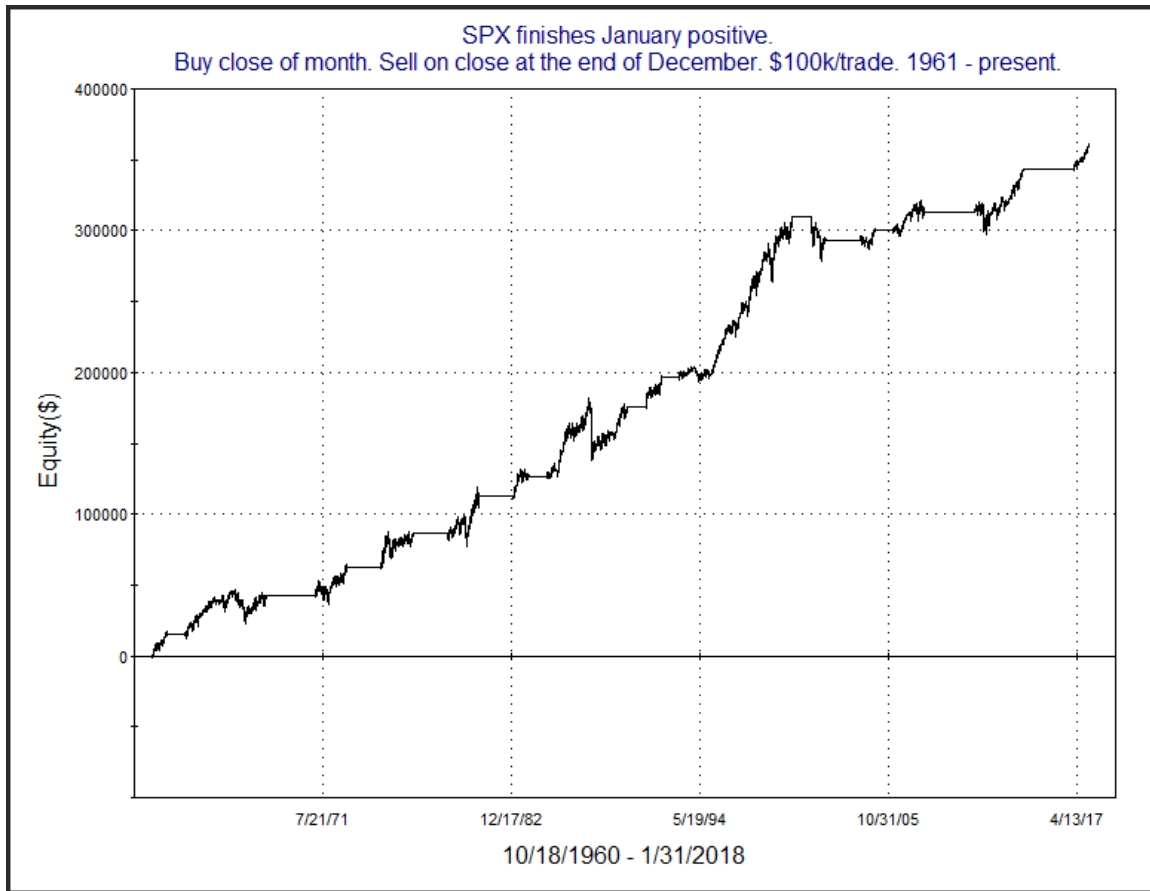
Above is the status of the different Combination Signals from the Quantifiable Edges Market Timing Course. Signals are long-term in nature. All 3 can be either flat or long. None of them look to short. More information on these signals can be found in the [Quantifiable Edges Market Timing Course](#), which is included with all annual subscriptions. Detailed descriptions of these combination approaches can be found in [Lesson 8](#). Subscribers may also download detailed hypothetical historical performance reports covering 12/31/71 – 3/7/14 in [Lesson 11, Course Downloads](#). (You must go through the course first in order to access the Downloads.) *This week all 3 Combo Systems remained “Long”.*

The market took a bit of a dive this past week, with the SPX closing down 3.9%. There were a few studies with possible intermediate-term implications that emerged, and I have highlighted them below. The 1st is from the 2/1 letter.

The January Barometer is a fairly famous study from the Stock Traders Almanac. It says that “as goes January, so goes the year”. In other words, a positive January will typically lead to a positive year, while a negative January can be a warning. So, as I did in the 2/6/17 letter, let’s look at how the SPX has done for the remaining 11 months of the year when January has closed higher.

SPX finishes January positive. Buy close of month. Sell on close at the end of December. \$100k/trade. 1961 - present.			
TradeStation Performance Summary			Expand
All Trades			
Total Net Profit	\$359,988.96	Profit Factor	8.82
Gross Profit	\$406,050.07	Gross Loss	(\$46,061.11)
Total Number of Trades	34	Percent Profitable	85.29%
Winning Trades	29	Losing Trades	5
Even Trades	0		
Avg. Trade Net Profit	\$10,587.91	Ratio Avg. Win:Avg. Loss	1.52
Avg. Winning Trade	\$14,001.73	Avg. Losing Trade	(\$9,212.22)
Largest Winning Trade	\$30,848.12	Largest Losing Trade	(\$15,908.89)

The numbers show that in years that January has done well, the rest of the year has typically fared well also. Below is a profit curve.



That is a nicely steady upslope. So perhaps January momentum will carry some follow through for 2018. This study is one I have always found interesting, but not terribly compelling. I will not be adding it to the Active List, but I thought readers might want to be aware of it.

A couple of weeks ago I did a little study that looked at performance following the induction of a new Fed Chairman. With Jerome Powell starting his new job on Monday, I decided to expand on that study below.

Buy Dow Jones Industrials at the close the day before a new Fed Chairman takes over.
Sell X days later. \$100k trade. 1923 - present.

X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
100	7,305.77	13	7	6	53.85	10,898.59	22,512.80	-11,497.39	-25,789.37	0.95	1.11	561.98
95	-12,168.77	13	7	6	53.85	8,374.35	18,404.00	-11,798.20	-28,653.80	0.71	0.83	-936.06
90	4,115.63	13	8	5	61.54	8,590.54	23,026.40	-12,921.74	-27,598.80	0.66	1.06	316.59
85	-4,067.57	13	6	7	46.15	11,439.45	27,951.00	-10,386.32	-31,692.20	1.10	0.94	-312.89
80	-12,384.50	13	7	6	53.85	10,179.64	24,442.00	-13,940.33	-29,114.19	0.73	0.85	-952.65
75	-7,108.54	13	8	5	61.54	7,899.19	21,485.60	-14,060.41	-27,809.80	0.56	0.90	-546.81
70	2,761.24	13	8	5	61.54	9,874.81	26,741.00	-15,247.45	-31,818.80	0.65	1.04	212.40
65	-973.60	13	7	6	53.85	11,078.39	23,026.40	-13,087.05	-29,497.80	0.85	0.99	-74.89
60	-7,963.80	13	7	6	53.85	8,698.10	17,719.20	-11,475.08	-27,978.60	0.76	0.88	-612.60
55	-6,018.86	13	9	4	69.23	6,660.25	16,863.20	-16,490.29	-29,205.95	0.40	0.91	-462.99
50	-15,018.39	13	8	5	61.54	6,246.77	14,842.80	-12,998.50	-29,408.71	0.48	0.77	-1,155.26
45	9,362.97	13	8	5	61.54	5,903.72	14,157.00	-7,573.35	-20,678.00	0.78	1.25	720.23
40	19,984.05	13	8	5	61.54	7,768.63	31,097.00	-8,432.99	-25,024.60	0.92	1.47	1,537.23
35	24,882.28	13	8	5	61.54	7,500.81	26,015.00	-7,024.84	-23,969.60	1.07	1.71	1,914.02
30	16,852.18	13	8	5	61.54	6,015.98	18,755.00	-6,255.13	-17,597.40	0.96	1.54	1,296.32
25	7,083.18	13	8	5	61.54	4,766.53	15,609.00	-6,209.80	-21,184.40	0.77	1.23	544.86
20	606.37	13	9	4	69.23	3,329.31	7,986.00	-7,339.36	-16,837.80	0.45	1.02	46.64
15	7,312.40	13	10	3	76.92	3,546.28	14,157.00	-9,383.47	-14,263.60	0.38	1.26	562.49
10	8,408.52	13	9	4	69.23	3,532.21	11,616.00	-5,845.35	-12,027.00	0.60	1.36	646.81
5	2,553.09	13	9	4	69.23	1,390.13	2,466.20	-2,489.53	-5,823.60	0.56	1.26	196.39

Obviously it appears to be a bit of a mixed bag. The most positive results came in the 1st 3 weeks (15 trading days). Perhaps the market view the new chairman with enthusiasm. The most negative results were 50-day out. These were also greatly skewed by the crash of '87 and another giant swoon in 1930. Below I have listed the 13 new chairmen and the results 15 and 50 days after their start.

Buy Dow Jones Industrials at the close the day before a new Fed Chairman takes over.
Sell 15 or 50 days later. \$100k trade. 1923 - present.

Date/Time	Signal	Price	15-day % Profit	50-day % Profit	Chairman
4/30/1923	Buy	\$98.40	-5.69%	-10.77%	Daniel Crissinger
5/21/1923	Sell	\$92.80			
9/30/1927	Buy	\$197.60	-8.20%	-0.46%	Roy Young
10/24/1927	Sell	\$181.40			
9/15/1930	Buy	\$236.60	-14.29%	-22.61%	Eugene Meyer
10/6/1930	Sell	\$202.80			
5/18/1933	Buy	\$82.60	14.16%	9.93%	Eugene Black
6/9/1933	Sell	\$94.30			
11/14/1934	Buy	\$99.40	4.12%	2.11%	Marriner S. Eccles
12/6/1934	Sell	\$103.50			
4/14/1938	Buy	\$116.80	0.34%	11.73%	Thomas B. McCabe
5/6/1938	Sell	\$117.20			
3/30/1951	Buy	\$248.50	2.54%	1.25%	William M. Martin
4/20/1951	Sell	\$254.80			
1/30/1970	Buy	\$744.10	1.80%	4.91%	Arthur Burns
2/20/1970	Sell	\$757.50			
3/7/1978	Buy	\$746.80	2.01%	14.94%	G. William Miller
3/29/1978	Sell	\$761.80			
8/3/1979	Buy	\$846.20	4.02%	-1.78%	Paul Volcker
8/24/1979	Sell	\$880.20			
8/10/1987	Buy	\$2,635.84	1.03%	-30.15%	Alan Greenspan
8/31/1987	Sell	\$2,662.95			
1/31/2006	Buy	\$10,864.86	2.51%	2.44%	Ben Bernanke
2/22/2006	Sell	\$11,137.17			
1/31/2014	Buy	\$15,698.85	3.24%	3.02%	Janet Yellen
2/24/2014	Sell	\$16,207.14			

QuantifiableEdges.com

As I mentioned a few weeks ago, what stands out to me is that the last 10 instances all saw the Dow higher 15 days later. Looking back as far as I am and using such a low sample size, I do not view these results as significant. But as an exercise in curiosity I found it interesting.

It is also notable that Thursday marked the 4th Hindenburg Omen signal that triggered in the last few weeks. I last discussed the Hindenburg Omen in detail in the 11/13/17 letter. With today's letter being perhaps the longest I have ever written, I decided to copy that research below and not update the last instance.

The Hindenburg Omen was created by Jim Miekka in 1995. It looks to identify times when there is a split market developing, which could signal trouble ahead. Friday marked the 6th recent Hindenburg Omen signal. Note, there have been some discrepancy in the rules over the years. To get larger sample sizes, I have used the less-strict rules in my testing. The rules I use are below.

1. The daily number of NYSE new 52 week highs and the daily number of new 52 week lows are both greater than or equal to 2.8 percent (typically about 84) of the sum of NYSE issues that advance or decline that day (typically, around 3000). The original version of the indicator used 2.2%. When I originally researched the Hindenburg Omens a few years ago, 2.2% was the number I used, and it is the number I again use in the studies below. (Two side notes: 1) If I use 2.8% rather than 2.2% there have only been 6 instances since 1980 where there has been a cluster of 3 or more triggers. Five saw lower prices ahead, but this does not give us a sample size that is really workable. 2) Over time I have also seen published different places levels of 2.4% and 2.5%, so there is often some confusion over this requirement.)
2. The NYSE index is greater in value than it was 50 trading days ago. Originally, this was expressed as a rising 10 week moving average, but the new rule is more relevant to the daily data used to look at new highs and lows.
3. The McClellan Oscillator is negative on the same day.
4. New 52 week highs cannot be more than twice the new 52 week lows (though new 52 week lows may be more than double new highs).

It is generally viewed that a single Hindenburg Omen signal is not a reliable indication of a market top, but that numerous signals provide a more reliable indication of danger. This is something I explored in the past and updated today. So let's look at some numbers. This first table shows results of entering the market when the 1st signal triggers.

Buy SPX when 1st Hindenburg Omen triggers. Sell X days later. \$100k/trade. 1980 - present.												
X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
100	38,173.44	29	18	11	62.07	6,126.89	13,171.60	-6,555.51	-19,079.85	0.93	1.53	1,316.33
95	36,170.46	30	19	11	63.33	5,880.11	17,946.48	-6,868.34	-22,416.88	0.86	1.48	1,205.68
90	17,286.00	31	17	14	54.84	6,088.93	15,961.92	-6,158.98	-20,572.65	0.99	1.20	557.61
85	27,501.23	32	19	13	59.38	6,264.01	16,670.24	-7,039.61	-21,465.22	0.89	1.30	859.41
80	11,467.20	32	18	14	56.25	6,234.77	16,583.84	-7,197.05	-21,552.30	0.87	1.11	358.35
75	5,142.10	32	18	14	56.25	5,798.12	14,501.70	-7,087.43	-22,917.59	0.82	1.05	160.69
70	7,020.93	32	17	15	53.13	6,724.70	17,714.32	-7,153.26	-20,289.64	0.94	1.07	219.40
65	-5,956.48	32	17	15	53.13	6,142.40	16,609.84	-7,358.48	-21,508.76	0.83	0.95	-186.14
60	-18,667.74	33	17	16	51.52	5,630.43	17,197.44	-7,149.06	-24,323.31	0.79	0.84	-565.69
55	-38,997.55	34	18	16	52.94	4,866.81	14,306.24	-7,912.50	-27,246.71	0.62	0.69	-1,146.99
50	-19,623.61	34	17	17	50.00	5,103.04	14,509.04	-6,257.37	-29,846.67	0.82	0.82	-577.16
45	-8,311.57	35	20	15	57.14	4,264.36	13,151.98	-6,239.92	-23,971.88	0.68	0.91	-237.47
40	-17,969.24	35	17	18	48.57	4,734.31	12,520.58	-5,469.59	-23,520.93	0.87	0.82	-513.41
35	-14,574.33	37	20	17	54.05	4,103.71	12,021.20	-5,685.21	-24,659.19	0.72	0.85	-393.90
30	-13,011.84	39	21	18	53.85	3,717.98	9,855.58	-5,060.52	-22,460.42	0.73	0.86	-333.64
25	-11,409.50	41	21	20	51.22	3,962.08	9,781.64	-4,730.66	-27,340.01	0.84	0.88	-278.28
20	-11,311.55	43	24	19	55.81	3,109.35	9,257.67	-4,522.94	-19,533.91	0.69	0.87	-263.06
15	4,831.79	46	23	23	50.00	2,556.76	9,103.68	-2,346.68	-8,166.80	1.09	1.09	105.04
10	-9,944.43	54	26	28	48.15	2,061.98	9,012.33	-2,269.85	-7,899.90	0.91	0.84	-184.16
5	-20,841.10	70	30	40	42.86	1,346.37	4,926.56	-1,530.81	-5,775.12	0.88	0.66	-297.73

The numbers here certainly aren't encouraging for the bull case, but they don't appear to be terribly dire either.

Let's now look at results if instead of entering after the 1st trigger, you purchase only if the trigger is at least the 2nd one in a 30-day period, which is a common time-period that Hindenburg watchers look for.

Buy SPX when 2nd Hindenburg Omen triggers. Sell X days later. \$100k/trade. 1980 - present.												
X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
100	45,172.43	18	13	5	72.22	6,351.16	17,883.98	-7,478.53	-18,879.12	0.85	2.21	2,509.58
95	41,938.42	19	14	5	73.68	6,092.17	17,605.78	-8,670.38	-21,212.88	0.70	1.97	2,207.29
90	39,282.67	19	15	4	78.95	5,263.29	20,476.59	-9,916.68	-20,011.68	0.53	1.99	2,067.51
85	19,516.45	21	12	9	57.14	6,535.77	20,455.19	-6,545.87	-21,883.68	1.00	1.33	929.35
80	13,958.33	21	13	8	61.90	5,471.25	18,961.47	-7,145.99	-21,961.68	0.77	1.24	664.68
75	16,159.23	21	13	8	61.90	6,129.58	17,861.51	-7,940.67	-23,181.60	0.77	1.25	769.49
70	6,769.38	21	14	7	66.67	5,274.75	21,700.67	-9,582.46	-19,060.08	0.55	1.10	322.35
65	-15,981.32	21	12	9	57.14	5,315.39	20,504.41	-8,862.89	-23,131.68	0.60	0.80	-761.02
60	-11,637.56	21	12	9	57.14	4,798.82	19,457.95	-7,691.48	-22,011.60	0.62	0.83	-554.17
55	-25,480.15	22	13	9	59.09	4,081.76	18,625.49	-8,727.00	-26,329.68	0.47	0.68	-1,158.19
50	-14,775.50	24	14	10	58.33	4,469.22	17,961.02	-7,734.46	-29,889.60	0.58	0.81	-615.65
45	-9,622.59	25	13	12	52.00	4,389.34	16,345.32	-5,557.00	-24,766.56	0.79	0.86	-384.90
40	-15,052.11	25	12	13	48.00	4,451.30	14,615.13	-5,266.74	-24,853.92	0.85	0.78	-602.08
35	-13,804.68	25	13	12	52.00	3,843.24	13,303.31	-5,313.90	-22,211.28	0.72	0.78	-552.19
30	-19,839.65	25	14	11	56.00	3,242.43	11,007.09	-5,930.33	-20,354.88	0.55	0.70	-793.59
25	-25,747.32	29	16	13	55.17	3,090.10	10,173.56	-5,783.76	-23,381.28	0.53	0.66	-887.84
20	-30,366.14	30	14	16	46.67	2,589.30	8,886.35	-4,163.52	-22,295.52	0.62	0.54	-1,012.20
15	-6,539.68	31	15	16	48.39	2,007.64	8,305.02	-2,290.89	-6,748.56	0.88	0.82	-210.96
10	-15,086.53	38	12	26	31.58	2,387.19	9,247.23	-1,682.03	-5,748.21	1.42	0.66	-397.01
5	-5,410.21	51	21	30	41.18	1,630.71	6,245.73	-1,321.84	-4,179.84	1.23	0.86	-106.08

Some of these numbers look a little worse, but you'd probably need to squint to notice. I next checked instances that triggered a 3rd signal in a 30-day period.

Buy SPX when 3rd Hindenburg Omen triggers.
Sell X days later. \$100k/trade. 1980 - present.

X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
100	37,203.91	14	10	4	71.43	5,795.62	18,512.90	-5,188.08	-16,085.07	1.12	2.79	2,657.42
95	27,039.70	14	9	5	64.29	5,762.23	16,070.66	-4,964.07	-16,770.54	1.16	2.09	1,931.41
90	10,605.16	14	8	6	57.14	5,941.39	18,595.58	-6,154.33	-19,277.67	0.97	1.29	757.51
85	16,494.91	14	9	5	64.29	5,869.45	18,884.96	-7,266.03	-21,362.25	0.81	1.45	1,178.21
80	-5,462.43	15	7	8	46.67	6,302.30	16,528.58	-6,197.32	-19,449.82	1.02	0.89	-364.16
75	923.17	15	7	8	46.67	7,885.59	18,289.24	-6,784.49	-22,758.23	1.16	1.02	61.54
70	-10,503.85	15	8	7	53.33	5,865.69	19,119.22	-8,204.19	-21,021.08	0.71	0.82	-700.26
65	-26,633.48	15	6	9	40.00	5,438.40	17,909.76	-6,584.88	-23,731.66	0.83	0.55	-1,775.57
60	-24,592.51	15	7	7	46.67	4,162.88	17,209.10	-7,676.10	-22,576.69	0.54	0.54	-1,639.50
55	-26,767.74	15	6	9	40.00	5,057.81	17,905.52	-6,346.06	-20,673.65	0.80	0.53	-1,784.52
50	-18,759.82	16	6	10	37.50	5,842.99	17,255.74	-5,381.78	-22,263.69	1.09	0.65	-1,172.49
45	-24,325.72	17	8	9	47.06	4,026.99	15,507.80	-6,282.41	-25,143.29	0.64	0.57	-1,430.92
40	-32,185.55	17	7	10	41.18	4,231.98	13,700.50	-6,180.94	-26,846.01	0.68	0.48	-1,893.27
35	-27,819.04	17	5	12	29.41	5,112.56	11,461.78	-4,448.49	-22,795.79	1.15	0.48	-1,636.41
30	-27,974.93	18	10	8	55.56	3,266.58	10,991.14	-7,580.09	-23,844.34	0.43	0.54	-1,554.16
25	-35,935.27	20	10	10	50.00	3,000.81	9,841.04	-6,594.34	-25,105.73	0.46	0.46	-1,796.76
20	-36,567.96	21	9	12	42.86	2,858.58	8,458.80	-5,191.27	-21,406.07	0.55	0.41	-1,741.33
15	-32,260.09	23	11	12	47.83	2,319.56	7,078.68	-4,814.60	-26,924.26	0.48	0.44	-1,402.61
10	-42,593.15	26	9	17	34.62	1,667.15	3,400.10	-3,388.09	-25,784.94	0.49	0.26	-1,638.20
5	-12,034.23	34	13	21	38.24	1,192.87	4,174.28	-1,311.50	-3,509.22	0.91	0.56	-353.95

Between 35 and 55 days out there appears to be somewhat weak returns on a small sample size.

I also updated the stats when 4 signals occur.

Buy SPX when 4th Hindenburg Omen triggers.
Sell X days later. \$100k/trade. 1980 - present.

X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
100	24,172.94	10	8	2	80.00	3,874.03	7,362.09	-3,409.63	-3,671.20	1.14	4.54	2,417.29
95	19,124.12	10	6	4	60.00	4,938.85	6,207.97	-2,627.24	-4,635.15	1.88	2.82	1,912.41
90	9,441.51	10	5	5	50.00	3,912.17	5,450.48	-2,023.87	-6,882.20	1.93	1.93	944.15
85	15,315.64	10	6	4	60.00	4,213.99	7,141.18	-2,492.08	-6,553.95	1.69	2.54	1,531.56
80	10,111.12	10	5	5	50.00	4,297.90	7,248.39	-2,275.68	-6,169.80	1.89	1.89	1,011.11
75	3,554.91	11	5	6	45.45	4,980.30	8,515.03	-3,557.76	-9,034.35	1.40	1.17	323.17
70	838.14	11	7	4	63.64	2,616.79	5,115.04	-4,369.85	-9,322.50	0.60	1.05	76.19
65	-20,856.37	11	4	7	36.36	2,196.09	4,280.64	-4,234.39	-10,467.60	0.52	0.30	-1,896.03
60	-22,848.31	11	6	5	54.55	1,569.02	4,358.48	-6,452.49	-11,602.80	0.24	0.29	-2,077.12
55	-21,432.24	11	5	6	45.45	2,157.76	5,385.52	-5,370.17	-8,851.04	0.40	0.33	-1,948.39
50	-22,562.71	12	6	6	50.00	2,198.12	3,934.12	-5,958.57	-9,484.48	0.37	0.37	-1,880.23
45	-28,046.50	12	3	9	25.00	2,821.99	3,730.16	-4,056.94	-14,483.52	0.70	0.23	-2,337.21
40	-25,152.71	12	4	8	33.33	2,090.17	3,315.35	-4,189.17	-11,881.28	0.50	0.25	-2,096.06
35	-41,527.30	12	3	9	25.00	2,014.82	3,328.16	-5,285.75	-14,149.68	0.38	0.13	-3,460.61
30	-23,384.43	13	6	7	46.15	2,212.35	5,262.60	-5,236.93	-13,730.24	0.42	0.36	-1,798.80
25	-21,636.01	14	7	7	50.00	2,425.14	6,253.80	-5,516.00	-12,334.96	0.44	0.44	-1,545.43
20	-22,642.04	14	4	10	28.57	2,858.89	4,796.40	-3,407.76	-9,664.24	0.84	0.34	-1,617.29
15	-13,651.97	15	6	9	40.00	2,347.37	4,301.89	-3,081.80	-8,405.92	0.76	0.51	-910.13
10	-12,486.55	19	7	12	36.84	1,596.34	2,854.88	-1,971.75	-6,566.95	0.81	0.47	-657.19
5	-16,154.77	21	6	15	28.57	1,371.40	2,929.92	-1,625.55	-4,884.75	0.84	0.34	-769.27

There are only 11 instances when looking out 35-50 days, but with 9 of them being down 35 days later these results warrant closer investigation. Below are the individual instances.

Buy SPX when 4th Hindenburg Omen triggers.
Sell 35 days later. \$100k/trade. 1980 - present.

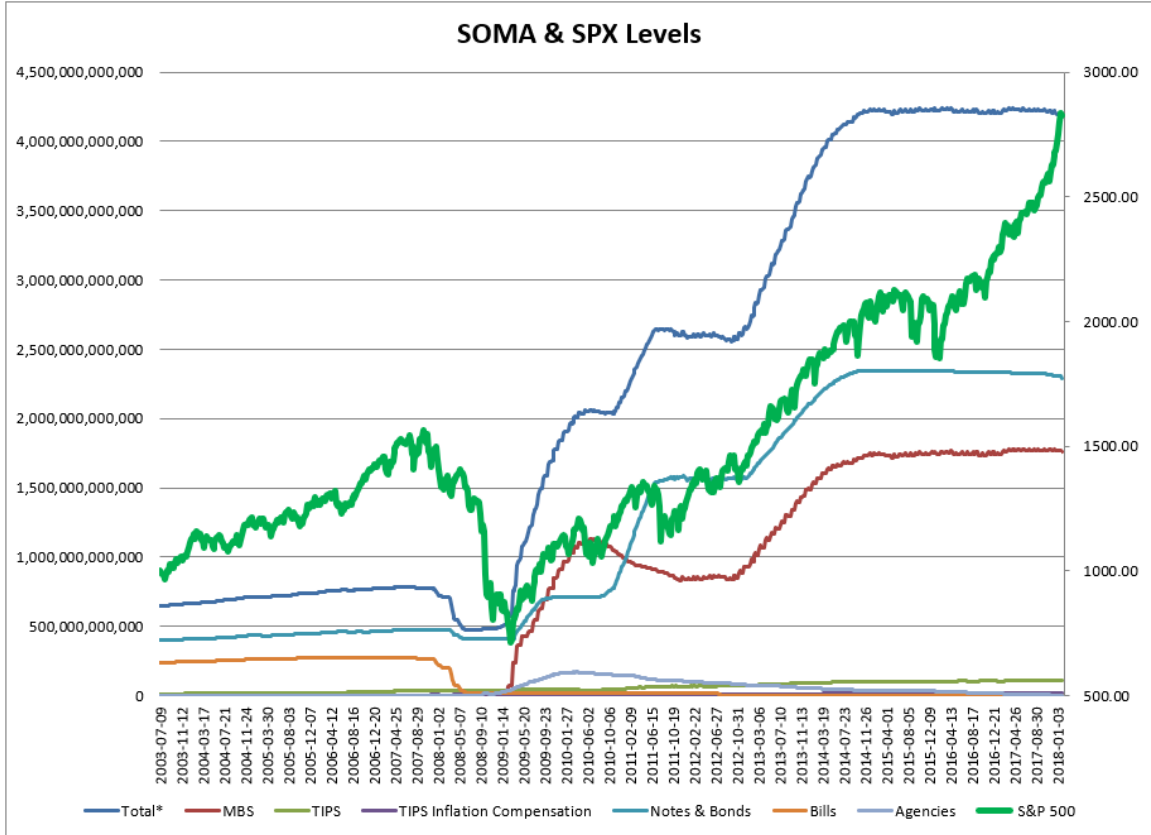
Date/Time	Signal	Price	% Profit	Run-up Drawdown
2/14/1980	Buy	\$116.72	-14.16%	\$1,010.08
4/7/1980	Sell	\$100.19		(\$19,251.44)
7/24/1986	Buy	\$237.94	-3.06%	\$6,846.00
9/12/1986	Sell	\$230.66		(\$3,864.00)
12/8/1999	Buy	\$1,403.88	-3.11%	\$5,262.52
1/28/2000	Sell	\$1,360.16		(\$3,385.28)
4/24/2006	Buy	\$1,308.11	-6.45%	\$1,412.84
6/13/2006	Sell	\$1,223.69		(\$6,504.84)
7/20/2007	Buy	\$1,534.10	-5.37%	\$853.45
9/10/2007	Sell	\$1,451.70		(\$10,627.50)
10/25/2007	Buy	\$1,514.39	-3.07%	\$2,532.42
12/14/2007	Sell	\$1,467.95		(\$7,147.14)
6/4/2013	Buy	\$1,631.38	3.34%	\$4,111.40
7/24/2013	Sell	\$1,685.94		(\$4,334.05)
8/9/2013	Buy	\$1,691.42	-0.58%	\$2,267.96
9/30/2013	Sell	\$1,681.55		(\$3,773.05)
12/17/2013	Buy	\$1,781.00	0.90%	\$3,911.04
2/7/2014	Sell	\$1,797.02		(\$2,412.48)
12/5/2014	Buy	\$2,075.37	-3.53%	\$872.64
1/28/2015	Sell	\$2,002.16		(\$4,934.88)
7/21/2015	Buy	\$2,119.21	-8.36%	\$0.00
9/9/2015	Sell	\$1,942.04		(\$11,853.40)
6/15/2017	Buy	\$2,432.46	1.82%	\$2,114.78
8/4/2017	Sell	\$2,476.83		(\$1,097.16)

The last instance actually posted a small gain over the next 35 days, but the two prior to that saw some fairly sizable drops. And the average drawdown for the 12 instances is about 2.5x the size of the average run-up. So the numbers seem to favor the bears. In my opinion the setup does not appear as menacing as the name might suggest, but there has been enough market damage following these signals that it is probably worth remaining cognizant of it. I have therefore listed it on the Intermediate-term Active List.

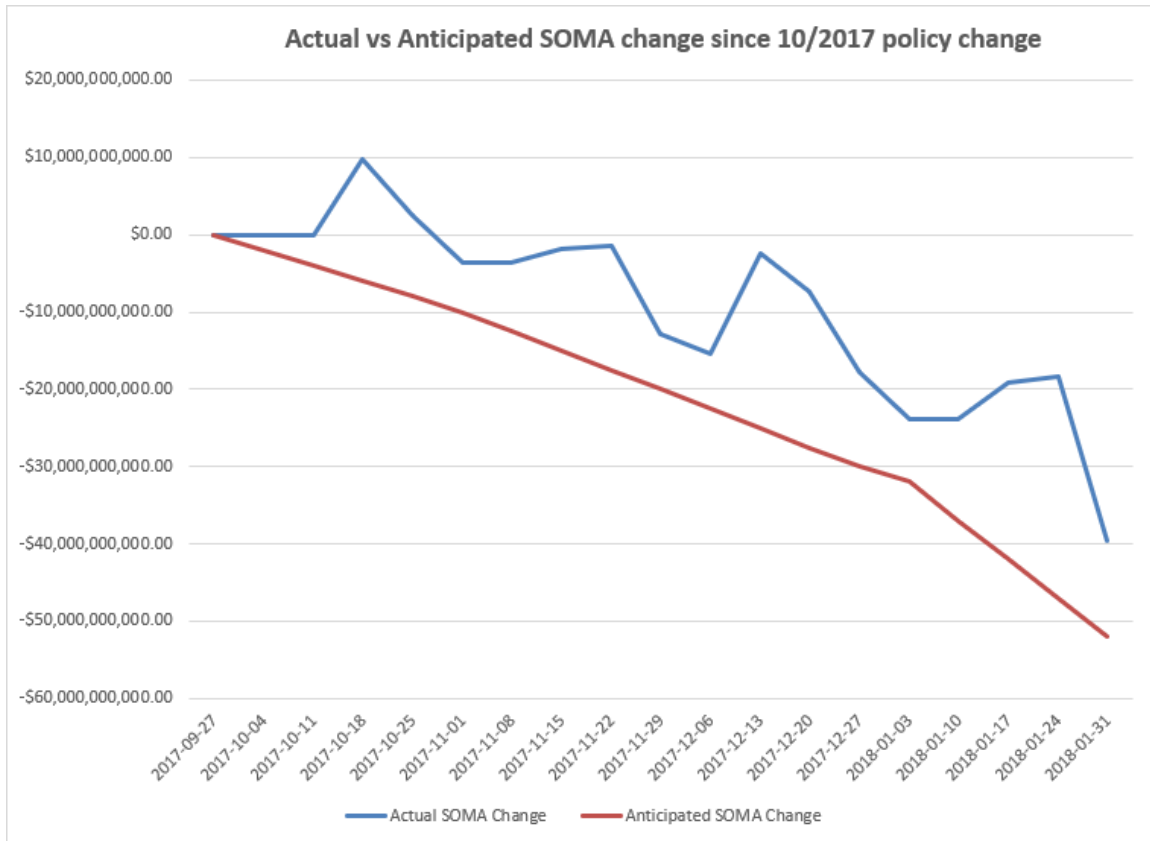
As I do each week, I have updated our Fed SOMA charts below. Below is a description for those who are new to these charts or who may want a refresher.

SOMA stands for System Open Market Account. It is the account at the Fed that contains all of its bond purchase holdings. We have tracked Fed purchases for several years, and as is evident in the charts below, the stock market has consistently reacted positively when the Fed has been buying securities in the open market and increasing the size of its account. When the account has declined, the market has struggled. The obvious takeaway has been “don’t fight the Fed”. As far as intermediate-term indicators go, this has been as good as anything in recent years.

While the Fed is not making new QE purchases any longer, it is continuing to reinvest maturities. Therefore, the total assets in their System Open Market Account (SOMA) has not begun to dive like the old Quantifiable Edges POMO indicators did. Below are long and short-term views of SOMA and SPX. First, the long-term view (back to 2003).



And now a zoomed-in view since October comparing expected reductions to actual.



The Fed's SOMA this past week (Wednesday to Wednesday) declined a whopping \$21.1 billion, which equates to about 0.5% of the SOMA. Over the previous 3 weeks the SOMA had actually risen, despite the current Fed edict to reduce it by \$20 billion per month. So in last week's letter I suggested we might see a little catch-up this last week in January, and that arrived in a big way. The decline is the largest seen since Operation Twist in 2011 – and there were only a few weeks during 2011 that qualified. Prior to that, you would need to go back to 2008 to see a SOMA shrinkage of this magnitude. Perhaps we should not be surprised that the SPX is experiencing its 1st 3%+ decline since 2016 on the heels of this big SOMA reduction. Up until now, the mild rate of reduction in the SOMA since October had not hindered the bull market. But each quarter this year the rate of decline is set to be upped by \$10 billion / month. So it could go to \$30 billion starting in April, and then \$40 billion in July and \$50 billion in October, where it is expected to remain and not increase further. Historically, the market has performed well during times of expansion, and it has struggled when the SOMA has shrank. The \$21 billion 1-week decline is not typical, but perhaps we are seeing a warning that as the size of the reduction increases, liquidity issues are more apt to arise, and the market will become more and more likely to correct. I'll continue to monitor this closely in the coming weeks, months, and years.

Overall evidence still appears to be favoring the bulls. There are several intermediate-term bullish studies that remain active. Additionally, the trend is still up, and all 3 Market Timing Course Combo Systems are “long”. Fed policy, and its implications, is still my biggest concern. The Hindenburg Omen is a secondary concern. There are no signs of a market correction starting just yet. My outlook is again somewhat bullish. I will continue to be a bit more aggressive with long trades and especially conservative when considering short trades.

Catapult and Capitulative Breadth Statistics

[*Catapult & CBI Presentation Link*](#)

Open Catapult Triggers

UNP – 1/3 @ \$133.60 (bought @ limit)

UPS – 1/3 @ 119.51 (bought @ limit)

New

PCLN – 1/3 @ 1859.10 (buy @ limit)

F – 1/3 @ 10.71 (buy @ limit)

HD – 1/3 @ 193.97 (buy @ limit)

LOW – 1/3 @ 101.50 (buy @ limit)

Broad Market Large Cap CBI – 6(UNP, UPS, PCLN, F, HD, LOW)

Additional New Trade Ideas

A full listing of system triggers can be found at the [numbered systems 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.

PCLN – buy 1/3 Catapult position @ \$1859.10 limit. This is from the Catapult section above. It is the 1st of up to 3 possible lots for PCLN.

F – buy 1/3 Catapult position @ \$10.71 limit. This is from the Catapult section above. It is the 1st of up to 3 possible lots for F.

HD – buy 1/3 Catapult position @ \$193.97 limit. This is from the Catapult section above. It is the 1st of up to 3 possible lots for HD.

LOW – buy 1/3 Catapult position @ \$101.50 limit. This is from the Catapult section above. It is the 1st of up to 3 possible lots for LOW.

SPY – buy ¼ index position @ \$275.44 LIMIT ON OPEN. If not filled on open, I will cancel the order and look to buy @ \$275.44 LIMIT ON CLOSE. Based on the short-term outlook above I will look to take on a 2nd lot of SPY on Monday if I can get a favorable fill. I am not interested in buying into an intraday selloff. So I will look for a gap-down bargain to buy into, or I will add to my position if SPY closes down on the day.

Current Open Trade Ideas

Symbol	Entry Date	Entry Price	Current Price	% Gain/Loss	Stop	Notes
UNP(1/3)	1/26/2018	\$133.60	\$129.36	-3.17%		Catapult
SPY(1/4)	1/31/2018	\$281.90	\$275.45	-2.29%		Aggregator
UNP(1/3)	2/2/2018	\$118.99	\$116.47	-2.12%		Catapult

A complete list of [Quantifiable Edges](#) trade idea results since the inception of the letter in 2008 [can be found here](#).

This report has been prepared by Quantifiable Edges, 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, Quantifiable Edges, LLC or clients of Quantifiable Edges, 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 Quantifiable Edges, LLC clients and prospects who are expected to make their own investment decisions without reliance upon this report. Neither Quantifiable Edges, LLC nor any officer or employee of Quantifiable Edges, 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 Quantifiable Edges, LLC.

Copyright © 2018 Quantifiable Edges, LLC.