

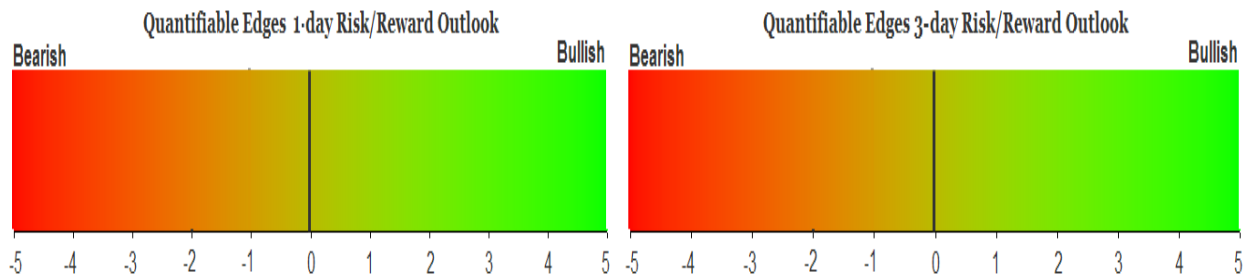
QUANTIFIABLE EDGES SUBSCRIBER LETTER

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

April 8, 2019

Volume 12 Issue 67

Market Overview



Signals Overview

Aggregator	CBI Reading
Flat	0

Tonight's Research Points

- RSI(2) crossing above 99 bodes well for the intermediate-term.
- SOMA flows may be slightly positive this reporting week. They should be negative next week.

Short-term Outlook

The Bottom Line

The market is overbought but the evidence is still pointing higher. This is leaving the Aggregator neutral. I am also neutral.

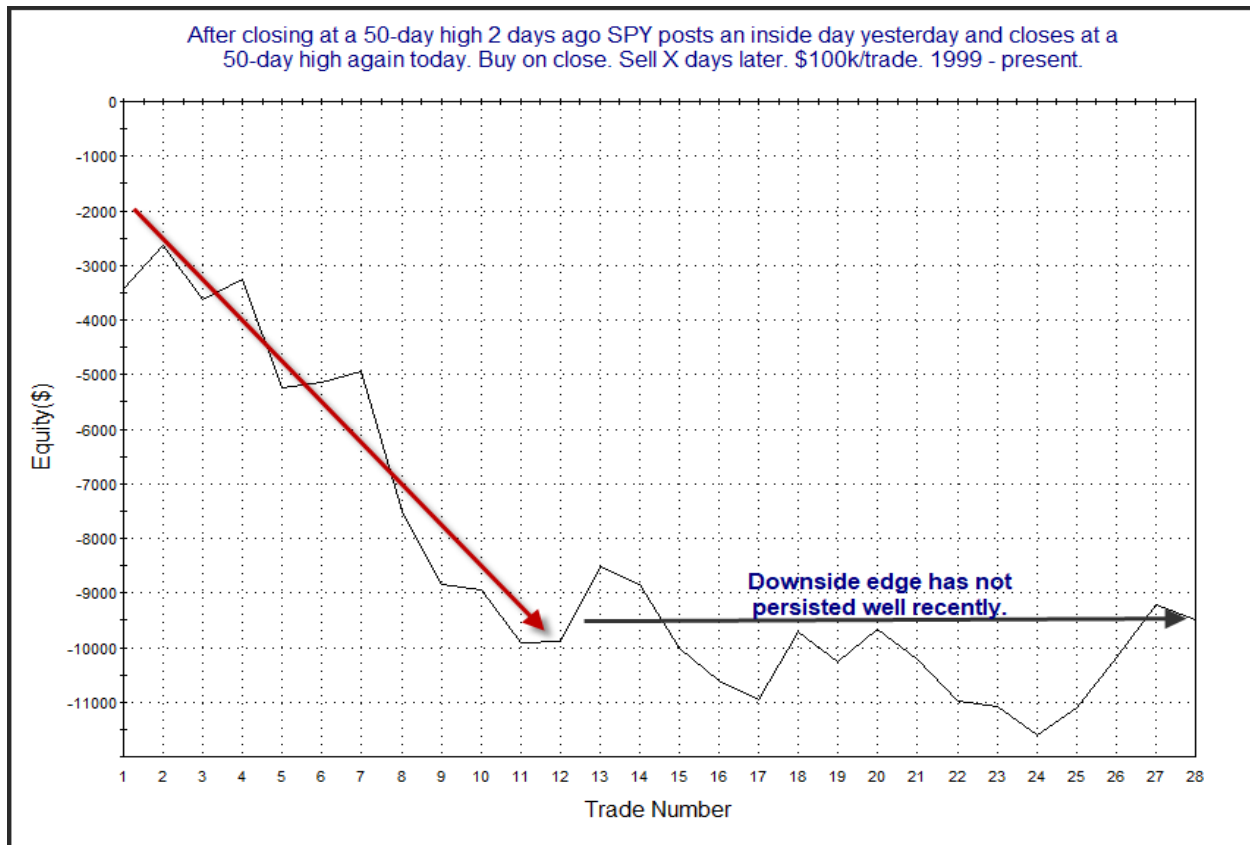
Summary of Recent Active Studies (see Letters from listed dates for details)

Study Date	Description	Time span	Bias	Avg Run-up	Avg DrawDn	Avg DrawDn - 1 Std Dev
Active - Short Term						
April 4, 2019	Gap up close high < open 2x	1-5 days	Bullish			
Active - Long Term						
April 8, 2019	SPX > 200ma. RSI(2) > 99	1-15 days	Bullish	2.25%	-1.40%	-2.70%
April 2, 2019	Golden Cross	int term	Bullish			
March 4, 2019	NASDAQ up 10 weeks in a row	13 weeks	Bullish	11.70%	-2.10%	-4.40%
January 9, 2019	Up Issues > 70% for 3 days	1-85 days	Bullish			
January 2, 2019	NASDAQ leading	int term	Bullish			
November 1, 2018	Best 6 Month During Pres Yr 3	1-6 months	Bullish	17.70%	-3.10%	-7.20%
October 1, 2018	Quantitative Tightening \$50billion/mo	int term	Bearish			
Dropped Tonight						
April 4, 2019	SPX 50-high. VIX up > 2.5%	1-2 days	Bearish			
March 6, 2019	1st close under 10ma in > 25 days	1-19 days	Bullish	4.40%	-0.80%	-2.00%

The Evidence

A positive reaction to the employment report helped spark more gains on Friday. The SPX closed up 0.5%, the NASDAQ climbed 0.6%, and the Russell 2000 rose 1.0%. Breadth was positive as the NYSE Up Issues % was 72% and the Up Volume % came in at 74%. NYSE volume rose some from Thursday's very low level.

In the 11/27/17 letter I noted the SPY pattern over the last few days, which appeared to suggest a bit of a downside edge. But that edge keeps weakening, and I am not finding the study compelling at the moment. An updated version of the profit curve can be seen below.



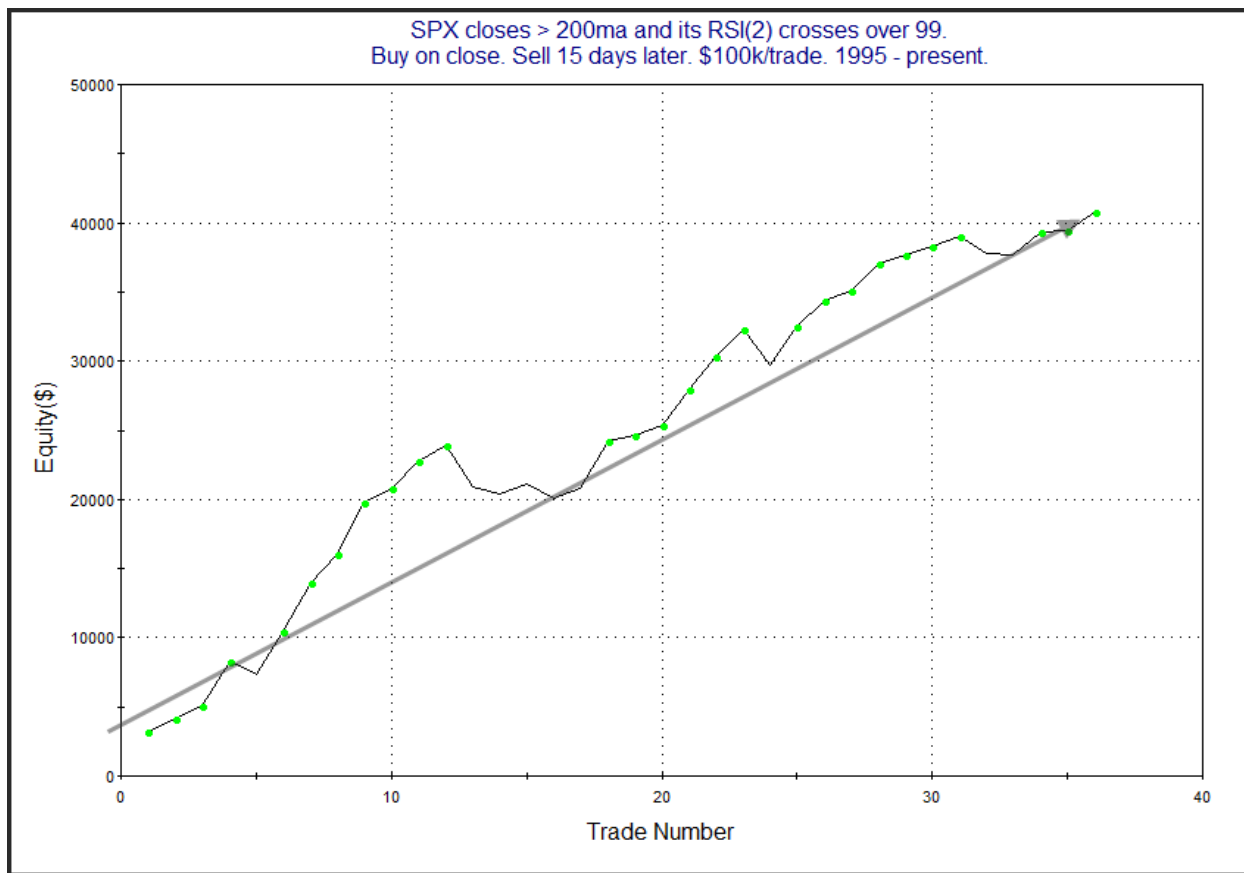
The 2nd half of the chart has not provided any further downside progress. This does not appear to be a compelling bearish setup based on what I am seeing here. The 1 and 2-day curves were even less appealing. So I am not including this study on the Active List tonight and I will likely eliminate it from the Quantifinder unless the edge reasserts itself quickly.

The rally over the last several days has been impressive, and it has left the market short-term overbought by most measures. Of course short-term overbought often triggers some studies that suggest a downside edge. But when the overbought condition gets very strongly overbought, then those downside edges often disappear. And rather than strength leading to weakness the strength will beget more strength. The strong move higher over the last several days has turned the market so overbought that we are seeing this scenario begin to unfold. It is exemplified in the study below from the 10/4/17 Letter, which uses RSI(2).

SPX closes > 200ma and its RSI(2) crosses over 99.
Buy on close. Sell X days later. \$100k/trade. 1995 - present.

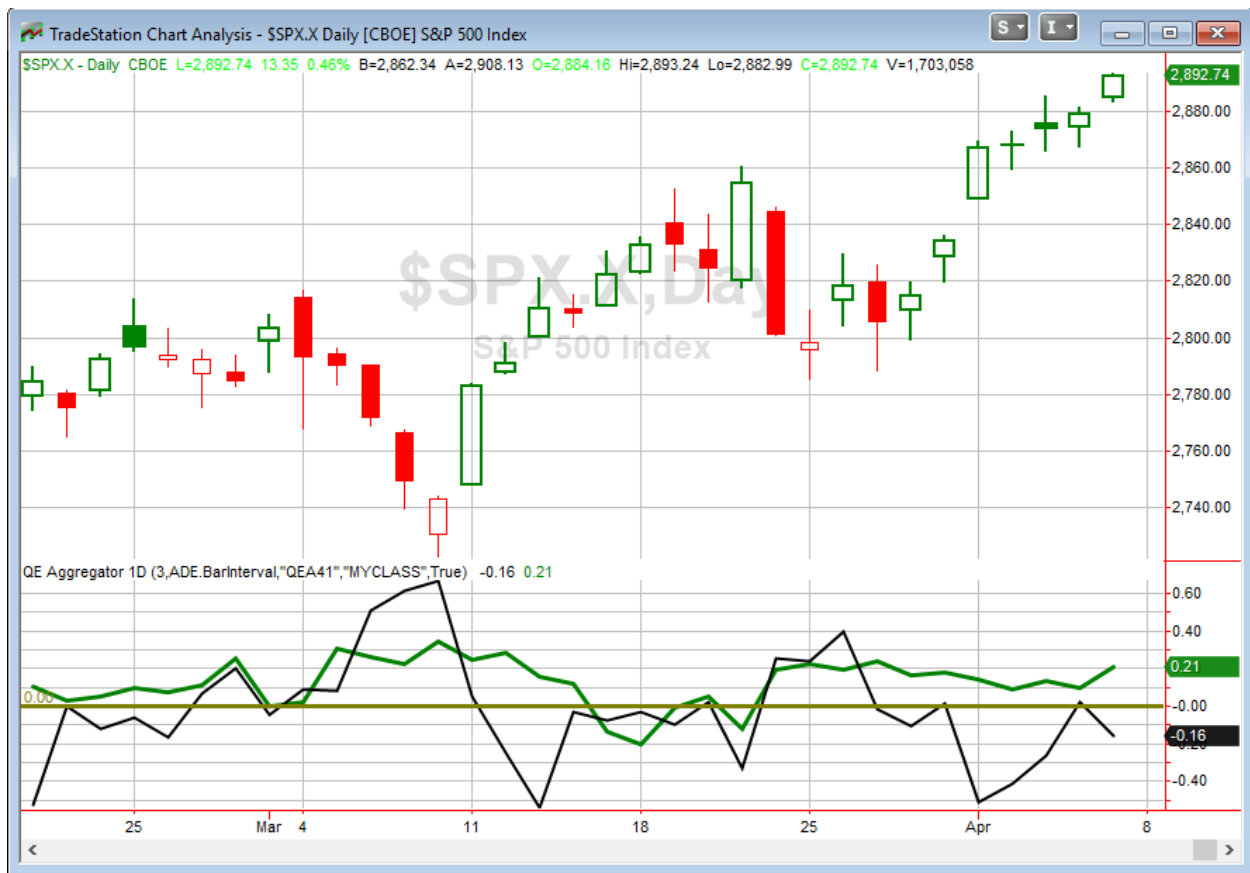
X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
15	40,739.74	36	29	7	80.56	1,725.28	3,782.11	-1,327.63	-3,063.60	1.30	5.38	1,131.66
14	35,042.89	36	28	8	77.78	1,655.26	4,461.36	-1,413.04	-2,699.52	1.17	4.10	973.41
13	36,340.65	38	31	7	81.58	1,535.02	3,989.82	-1,606.42	-3,320.01	0.96	4.23	956.33
12	34,007.45	38	30	8	78.95	1,464.83	4,058.61	-1,242.16	-3,175.53	1.18	4.42	894.93
11	36,576.01	38	30	8	78.95	1,559.53	4,106.40	-1,276.22	-2,523.21	1.22	4.58	962.53
10	29,444.12	39	30	9	76.92	1,391.81	3,770.55	-1,367.79	-2,793.28	1.02	3.39	754.98
9	25,500.63	39	29	10	74.36	1,292.00	3,453.27	-1,196.74	-3,440.07	1.08	3.13	653.86
8	26,141.53	39	27	12	69.23	1,364.66	3,547.80	-892.03	-3,460.32	1.53	3.44	670.30
7	19,127.96	40	26	14	65.00	1,205.87	3,564.39	-873.19	-4,153.62	1.38	2.56	478.20
6	10,587.91	40	25	15	62.50	1,063.27	2,634.36	-1,066.26	-5,296.92	1.00	1.66	264.70
5	7,219.47	40	27	13	67.50	823.59	1,782.39	-1,155.19	-3,596.40	0.71	1.48	180.49
4	5,198.83	40	27	13	67.50	794.86	2,442.90	-1,250.96	-3,039.18	0.64	1.32	129.97
3	-858.84	41	24	17	58.54	694.71	1,982.20	-1,031.28	-2,880.45	0.67	0.95	-20.95
2	1,685.30	41	24	17	58.54	632.24	1,998.39	-793.44	-2,348.76	0.80	1.12	41.10
1	1,408.64	41	21	20	51.22	534.14	2,096.10	-490.41	-3,515.37	1.09	1.14	34.36

The numbers here are basically neutral for the first week or so. On a short-term basis there is no edge apparent. But once you get out 2-3 weeks, it appears the strength has re-asserted itself and the market is often higher. Below is a profit curve showing a 15-day holding period.



The upside edge has been apparent for a while and still appears to be intact. Obviously, this study does not help us with the short-term, but I have added it to the intermediate-term list.

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



Without any new studies making the cut tonight, the green Aggregator Line remained above zero. Positive readings mean net expectations are for upside over the next few days. Meanwhile, the black Differential Line dropped back below 0. The negative Differential Line reading means SPX is overbought versus recent expectations. So expectations are positive but SPX is overbought. This is considered a neutral configuration. Neutral configurations are visible on the chart whenever both lines close on opposite sides of zero. Therefore, the Aggregator signal turned flat at the close.

Based on the current active studies, expectations are set to remain bullish on Monday. Of course, this could easily change if new bearish evidence emerges. The Differential Pivot will be 2883.83 on Monday. That is 0.3% below Friday's close. Therefore, it will only take a moderate decline of 0.3% on Monday to quickly flip the SPX back to "oversold" versus recent expectations.

The Aggregator is neutral and so am I. This market is too overbought to buy and too strong to short. So I'll wait for a more compelling setup to emerge before taking on new positions.

Intermediate-term Outlook (2 weeks – 2 months) – updated 4/8 – 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 the Combo Systems all remained “Long”.*

This past week saw the market rise every day and put together some solid gains. The SPX closed the week up 2.4%, the NASDAQ rose 2.7%, and the Russell 2000 rallied 2.8%. Both the SPX and NASDAQ remain above their 200-day moving averages and closed Friday at 50-day highs. The intermediate-term trend still appears to be up. One indicator that turned bullish this past week was the SPX Golden Cross. I discussed this in the 4/2 letter and have copied that commentary below.

Of possible significance for the longer term is the fact that SPX posted a Golden Cross on Monday afternoon. A Golden Cross occurs when the 50ma crosses over the 200ma. Having the 50ma above the 200ma is commonly considered a bullish market condition – and generally it is. I covered Golden Crosses in detail in the [Quantifiable Edges Market Timing Course \(Lesson 2\)](#). In the past I have typically looked back to 1961 in my testing using Tradestation data. But tonight I used my Norgate data and Amibroker software to look back as far as 12/31/1928. Below are stats for all SPX Golden Crosses over the last 90+ years.

SPX Golden Cross trade performance.
12/31/28 - 4/1/2019

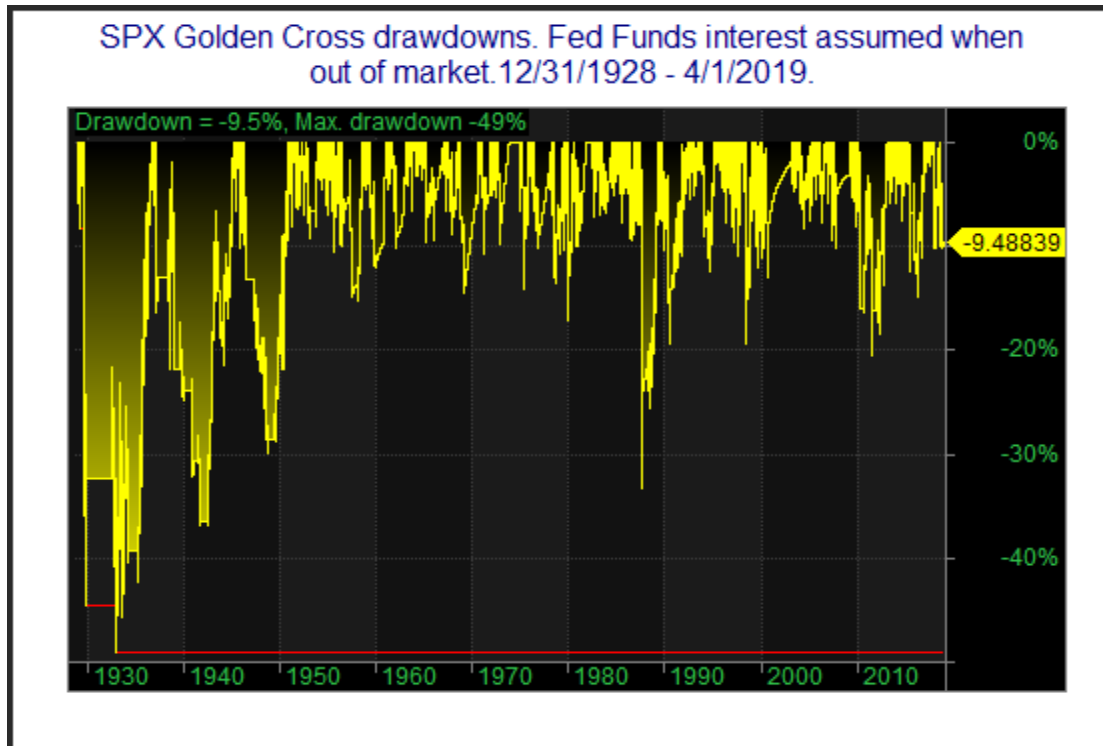
All trades	48
Avg. Profit/Loss %	14.36%
Avg. Bars Held	316.58
Winners	31 (64.58 %)
Avg. Profit %	26.25%
Avg. Bars Held	437.71
Max. Consecutive	8
# bars in largest win	1021
Losers	17 (35.42 %)
Avg. Loss %	-7.30%
Avg. Bars Held	95.71
Max. Consecutive	4
# bars in largest loss	122
Profit Factor	6.55

Below is a list of all Golden Crosses since 12/31/1928.

SPX Golden Cross returns.
12/31/28 - 4/1/2019.

Symbol	Trade	Date	Price	Ex. date	Ex. Price	% chg	Max Drawdown
\$\$PX	Golden Cross	12/31/1928	24.35	11/22/1929	21.53	-11.58%	-27.47%
\$\$PX	Golden Cross	9/19/1932	7.34	3/27/1933	6.09	-17.03%	-24.66%
\$\$PX	Golden Cross	5/18/1933	8.89	5/31/1934	9.61	8.10%	-3.15%
\$\$PX	Golden Cross	5/23/1935	10.07	5/21/1937	16.27	61.57%	-4.87%
\$\$PX	Golden Cross	7/27/1938	12.25	3/31/1939	10.98	-10.37%	-10.37%
\$\$PX	Golden Cross	9/18/1939	12.47	3/20/1940	12.14	-2.65%	-3.77%
\$\$PX	Golden Cross	12/13/1940	10.69	2/21/1941	9.76	-8.70%	-10.85%
\$\$PX	Golden Cross	8/18/1941	10.13	11/18/1941	9.26	-8.59%	-9.08%
\$\$PX	Golden Cross	8/14/1942	8.58	12/1/1943	11.13	29.72%	-0.47%
\$\$PX	Golden Cross	3/13/1944	12.24	8/28/1946	16.73	36.68%	-4.66%
\$\$PX	Golden Cross	7/25/1947	16.08	1/22/1948	14.42	-10.32%	-10.32%
\$\$PX	Golden Cross	5/14/1948	16.39	12/1/1948	15.01	-8.42%	-10.01%
\$\$PX	Golden Cross	8/31/1949	15.22	5/11/1953	24.91	63.67%	-0.20%
\$\$PX	Golden Cross	12/21/1953	24.95	10/26/1956	46.27	85.45%	-1.60%
\$\$PX	Golden Cross	6/3/1957	47.37	9/26/1957	42.57	-10.13%	-10.13%
\$\$PX	Golden Cross	5/8/1958	43.99	10/30/1959	57.52	30.76%	-1.98%
\$\$PX	Golden Cross	12/30/1959	59.77	2/15/1960	55.17	-7.70%	-7.70%
\$\$PX	Golden Cross	1/4/1961	58.36	5/7/1962	66.02	13.13%	0.00%
\$\$PX	Golden Cross	1/3/1963	63.72	7/22/1965	83.85	31.59%	-1.65%
\$\$PX	Golden Cross	9/17/1965	90.05	4/28/1966	91.13	1.20%	-3.73%
\$\$PX	Golden Cross	2/3/1967	87.36	2/27/1968	90.53	3.63%	-2.00%
\$\$PX	Golden Cross	5/17/1968	96.9	3/13/1969	98.39	1.54%	-1.15%
\$\$PX	Golden Cross	5/27/1969	103.57	6/23/1969	96.23	-7.09%	-7.09%
\$\$PX	Golden Cross	10/22/1970	83.38	9/24/1971	98.15	17.71%	-1.38%
\$\$PX	Golden Cross	1/26/1972	102.5	4/18/1973	111.54	8.82%	-0.67%
\$\$PX	Golden Cross	3/6/1975	83.69	12/1/1976	102.49	22.46%	-4.82%
\$\$PX	Golden Cross	1/4/1977	105.7	3/3/1977	100.88	-4.56%	-6.51%
\$\$PX	Golden Cross	5/22/1978	99.09	12/13/1978	96.06	-3.06%	-7.51%
\$\$PX	Golden Cross	3/21/1979	101.25	4/22/1980	103.43	2.15%	-6.93%
\$\$PX	Golden Cross	6/17/1980	116.03	7/2/1981	128.64	10.87%	-2.51%
\$\$PX	Golden Cross	9/28/1982	123.24	2/3/1984	160.91	30.57%	-2.52%
\$\$PX	Golden Cross	9/12/1984	164.68	11/18/1986	236.78	43.78%	-2.83%
\$\$PX	Golden Cross	11/25/1986	248.17	11/5/1987	254.48	2.54%	-12.78%
\$\$PX	Golden Cross	6/28/1988	272.31	2/26/1990	328.67	20.70%	-5.79%
\$\$PX	Golden Cross	5/25/1990	354.58	9/7/1990	323.4	-8.79%	-13.65%
\$\$PX	Golden Cross	2/15/1991	369.06	4/19/1994	442.54	19.91%	-1.86%
\$\$PX	Golden Cross	9/15/1994	474.81	9/29/1998	1049.02	120.93%	-6.72%
\$\$PX	Golden Cross	12/8/1998	1181.38	11/4/1999	1362.64	15.34%	-3.77%
\$\$PX	Golden Cross	11/11/1999	1381.46	10/30/2000	1398.66	1.25%	-5.48%
\$\$PX	Golden Cross	5/14/2003	939.28	8/18/2004	1095.17	16.60%	-2.90%
\$\$PX	Golden Cross	11/5/2004	1166.17	7/19/2006	1259.81	8.03%	-2.57%
\$\$PX	Golden Cross	9/12/2006	1313	12/21/2007	1484.46	13.06%	-1.03%
\$\$PX	Golden Cross	6/23/2009	895.1	7/2/2010	1022.58	14.24%	-2.88%
\$\$PX	Golden Cross	10/22/2010	1183.08	8/12/2011	1178.81	-0.36%	-6.89%
\$\$PX	Golden Cross	1/31/2012	1312.41	8/28/2015	1988.87	51.54%	-3.48%
\$\$PX	Golden Cross	12/21/2015	2021.15	1/11/2016	1923.67	-4.82%	-5.08%
\$\$PX	Golden Cross	4/25/2016	2087.79	12/7/2018	2633.08	26.12%	-4.60%

Since the 1961 trigger, the Golden Cross has served as a fairly good timing device to sidestep large portions of bear markets. But prior to that it was not nearly as effective. This can be seen in the drawdown chart below.

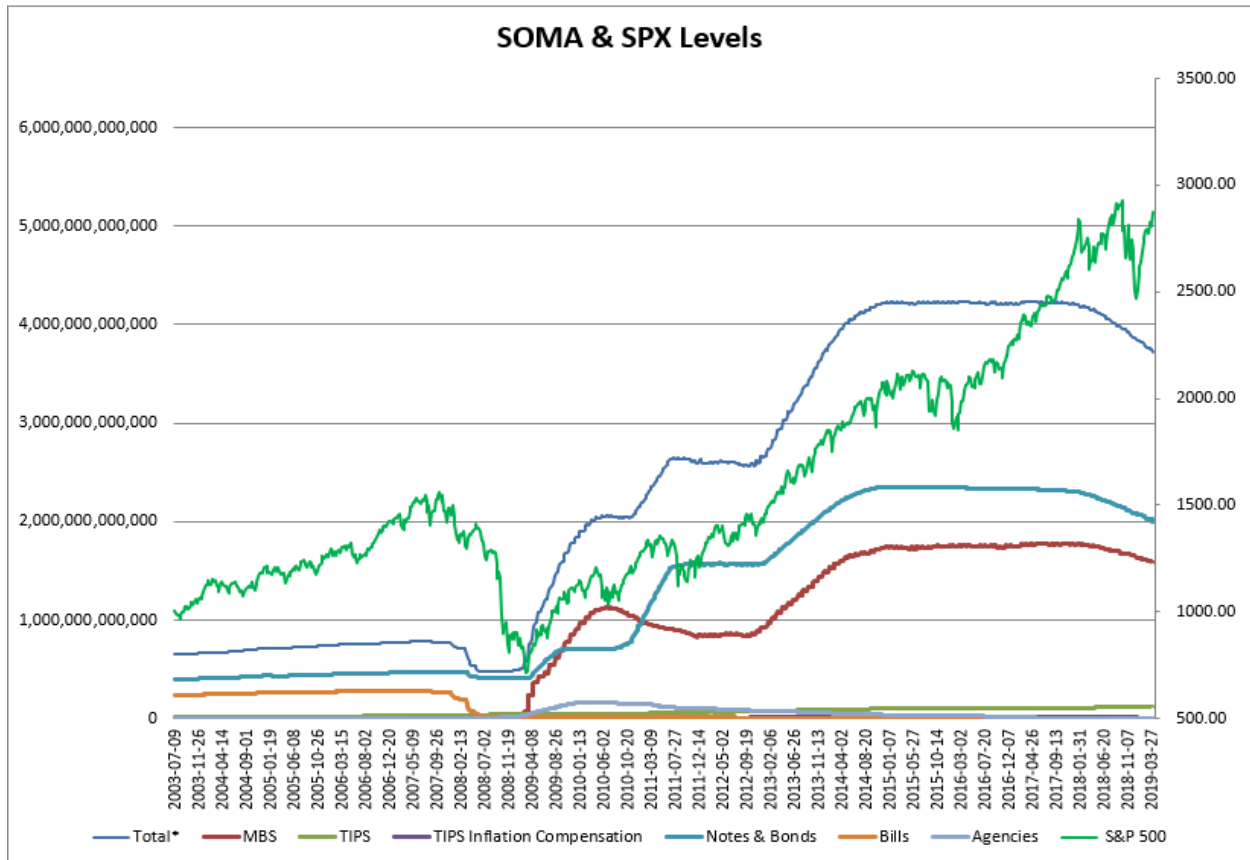


While drawdowns have been mostly quite moderate since the mid-50s, prior to that there were some very large drawdown to endure. Even with these drawdowns, the Golden Cross would have beaten "Buy and Hold". It is a bullish indication. But it is not a bulletproof long signal.

As I typically 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.

In October 2017 the Fed began reducing the size of the SOMA by not reinvesting some maturities in MBS and treasuries. Below is a long-term view of SOMA and SPX (back to 2003).



The table below is from the Fed's website and shows the changes this past week.

« As of 03/27/2019

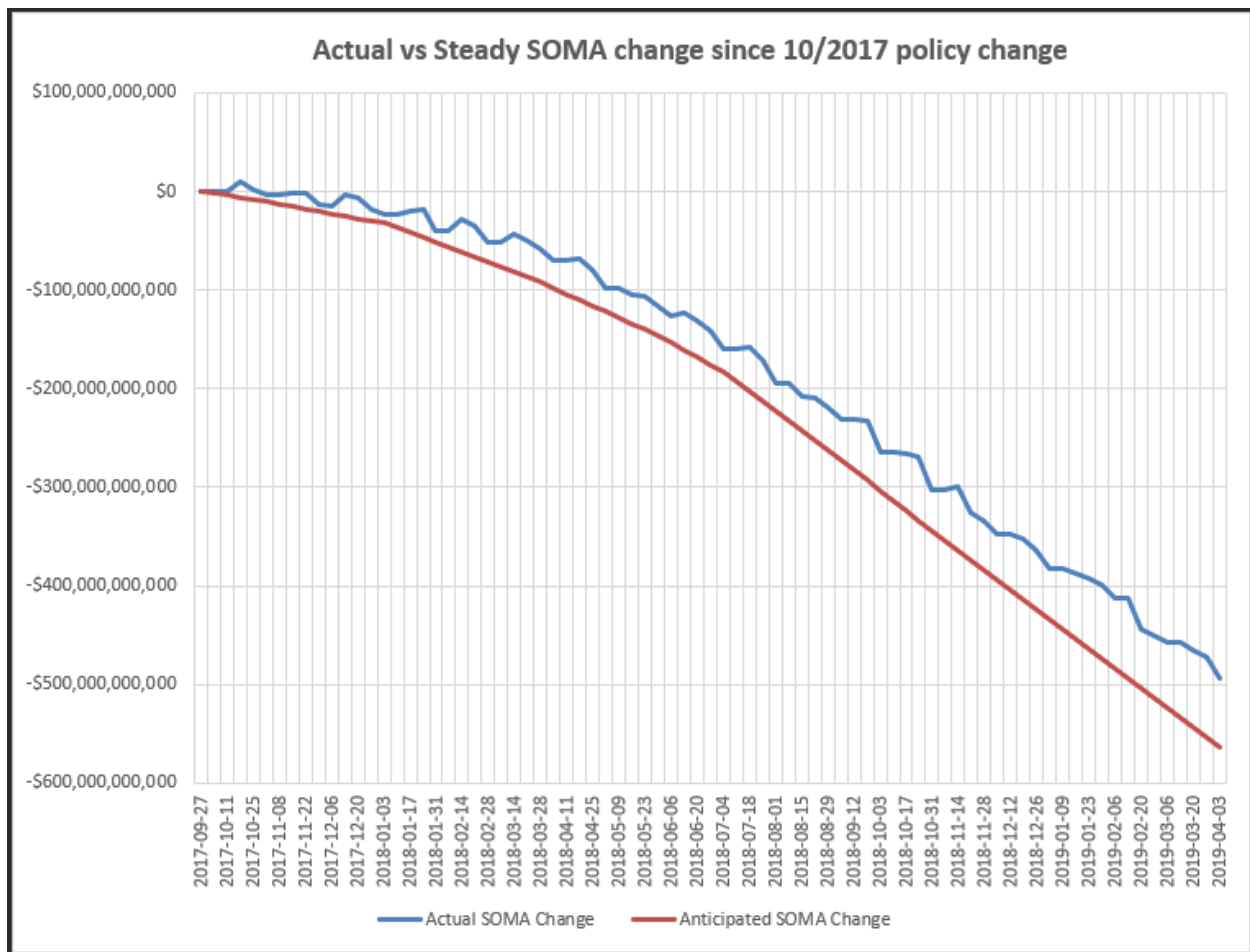
DOMESTIC SECURITIES HOLDINGS AS OF
April 3, 2019

Security Type	Total (in Thousands)
US Treasury Bills (T-Bills)	
US Treasury Notes and Bonds (Notes/Bonds)	2,000,330,958.4
US Treasury Floating Rate Notes (FRN)	16,300,804.9
US Treasury Inflation-Protected Securities (TIPS)*	115,153,915.8
Federal Agency Securities**	2,347,000.0
Agency Mortgage-Backed Securities***	1,592,722,598.3
Total SOMA Holdings	3,726,855,277.4
Change From Prior Week	-22,379,159.8

*Does not reflect inflation compensation of 21,522,692.4
 **Fannie Mae, Freddie Mac and Federal Home Loan Bank
 ***Guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae. Current face value of the securities, which is the remaining principal balance of the securities.

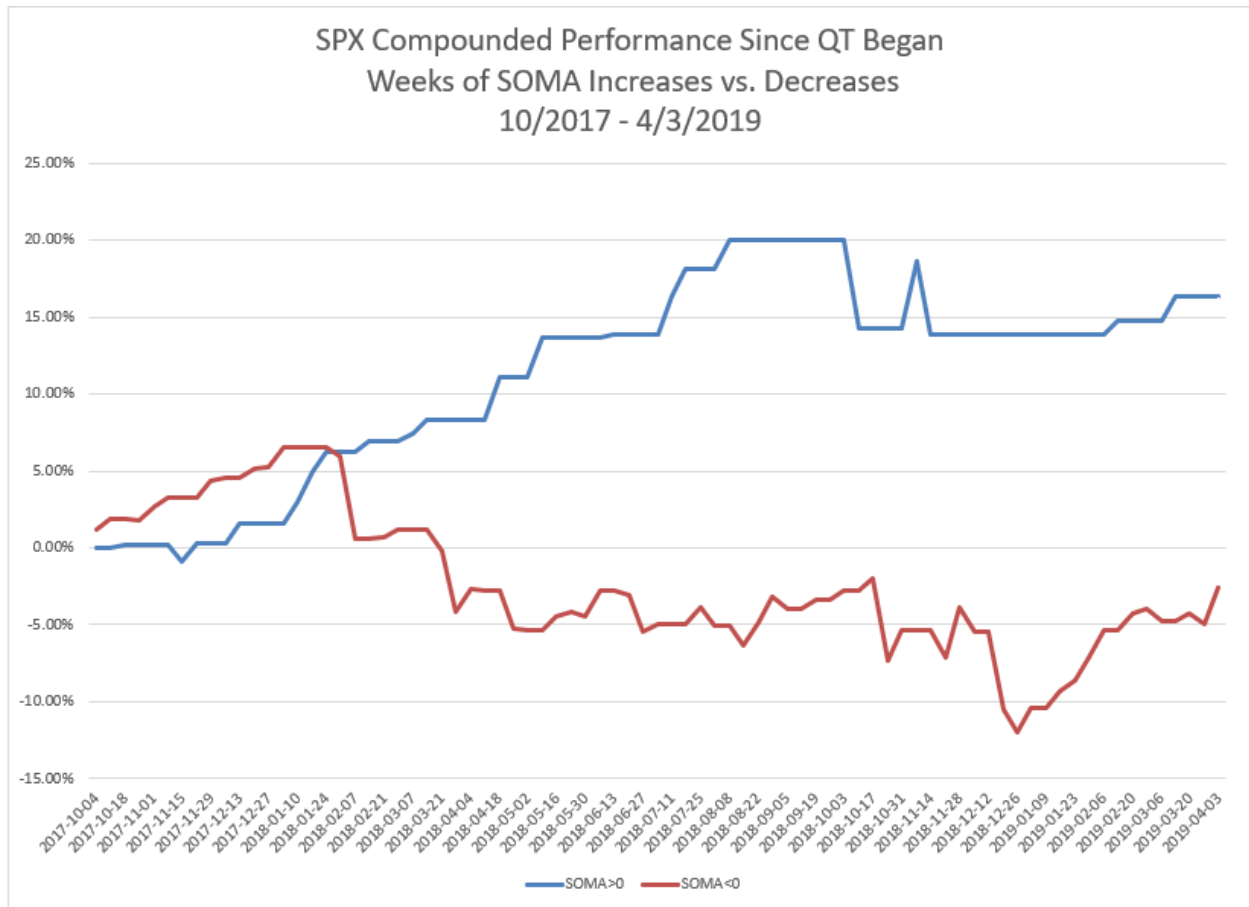
Data posted on 04/04/2019 4:30pm.

And now a view since October 2017 comparing steady reductions to actual.



The Fed's SOMA this past week (Wednesday to Wednesday) saw a sizable decline of about \$22.4 billion. The "Actual vs Steady" chart shows that the SOMA decline was large with the QT rate being \$50 billion / month. The decline in the SOMA was in-line with what we were expecting this past week. Meanwhile, the SPX did not care and rose 2.4% for the reporting week ending 4/3. That is a hefty gain, especially for a week where the SOMA has declined.

The market has typically encountered difficulty during SOMA contractions, and flourished when the SOMA has seen expansions. I discuss this in detail in the Fed-Based Quantifiable Edges for Stock Market Trading Research Paper. This next chart shows compounded results since QT began of being long SPX during SOMA expansion weeks vs SOMA contraction weeks. It is updated from last week.



You can see here the sharp contrast in expansion weeks versus contraction weeks over the last year and a half. Despite some brief struggles last September and October, expansion weeks (blue line) have seen strong gains. Meanwhile, weeks with QT (red line) have been net losers, though the chart has recovered quite a bit since Christmas. Since October 2017 the blue “expansion week” strategy would have posted a 16.4% gain while the red “contraction week” strategy would have lost 2.6%. That is a substantial difference in performance. So how might the next few weeks of QT play out? Let’s first look at the T-Note and T-Bond Maturity Table below, from the Fed’s website.

« As of 03/27/2019

DOMESTIC SECURITIES HOLDINGS AS OF
April 3, 2019 📅

Summary T-Bills T-Notes and T-Bonds FRN TIPS Agencies						
Maturity Date	CUSIP	Coupon (%)	Par Value (in Thousands)	% of Total Outstanding ¹	Change in Par from Prior Week ²	Change in Par from Prior Year ²
4/15/19	912828Q52	0.875	168,895.3	0.70%		
4/30/19	912828ST8	1.250	23,451,764.9	39.53%		
4/30/19	912828D23	1.625	4,667,000.0	13.33%		
5/15/19	912828R44	0.875	5,427,606.6	18.44%		
5/15/19	912828KQ2	3.125	33,047,691.9	51.31%		
5/31/19	912828SX9	1.125	16,864,388.8	58.15%		
5/31/19	912828XS4	1.250	3,127,905.4	10.74%		
5/31/19	912828WL0	1.500	64,464.5	0.18%		

As far as treasuries are concerned, we will see a very small expiration on 4/15, and then a very large one of \$28 billion at the end of April. And that will be the largest expiration for the foreseeable future, because starting in May the Fed will only roll off a max of \$15 billion per month in Treasuries.

Weeks where there are no treasuries expiring, any QT will be due to AMBS securities coming off the books. Compared to treasuries, AMBS flows are a little more difficult to anticipate. This is because 1) amounts may vary depending on loan pre-payments, and 2) there is a lag of 1-3 months to settle. For those interested in details, AMBS policies and procedures are described in more detail at the Fed's website: <https://www.newyorkfed.org/markets/ambs-treasury-faq>. I have found that examining past months will often provide clues as to the flows we can anticipate during similar periods of the current month.

As I noted last weekend, weeks ending on the 10th, and most on the 9th or the 11th, have often seen slight rises. So this week should see a QT respite. And if the SOMA does not increase, I certainly would not expect to see it decline very much at all. But the reporting week starting Thursday and ending on the 17th should see some QT.

Intermediate-term indications are continuing to mostly point higher. All 3 Market Timing Course signals are long. And the strong breadth thrust off the bottom in early January generated terrific upside momentum. The 3x 70% Up Issues study remains intact and suggests the rally has staying power. The NASDAQ price momentum study from a few weeks ago suggests that we should see further gains, and so does today's RSI2 over 99 study. The overall trend looks good with SPX and NASDAQ both above the 200ma and Golden Crosses in effect. QT remains a primary concern for the intermediate-term, but it has not slowed down the market so far in 2019, and we are soon going to see it go away. The Fed has taken a more dovish tone now, which seems to be helping the market. I remain with a bullish outlook until more evidence starts to point south. This simply means I will be more aggressive with longs than I will with short positions.

Catapult and Capitulative Breadth Statistics

[Catapult & CBI Presentation Link](#)

OpenCatapult Triggers

None

Broad Market Large Cap CBI – 0

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.

None tonight.

Current Open Trade Ideas

None

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 © 2019 Quantifiable Edges, LLC.