

# QUANTIFIABLE EDGES WEEKLY RESEARCH

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

April 29, 2019

Issue 514

## Market Overview



## Signals Overview

Aggregator	CBI Reading
Long	0

## Tonight's Research Points

- When a Fed Day has occurred on the 1<sup>st</sup> day of a new month, that has generally been followed by a good start to the month.
- The SOMA saw a moderate decline in the latest reporting week. This upcoming week should see more QT than any week for a very long time.
- The “Worst 6 Months”, which starts in May, has actually been good when there has *not* been a 5% drawdown during the Jan-Apr period preceding (like now).

## *Short-term Outlook*

### *The Bottom Line*

The Aggregator is in a long formation but it is not a very convincing setup. Evidence is weak and the market is at new highs. So while there may be a small upside edge, I am more neutral than bullish.

**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
<b>Active - Short Term</b>						
None						
<b>Active - Long Term</b>						
April 24, 2019	SPX closes above 50-day Bollinger Bnd	1-50 days	Bullish	5.00%	-4.30%	-8.10%
April 23, 2019	RUT down 3 days. SPX 3-day high	1-10 days	Bullish	3.80%	-0.90%	-2.00%
April 23, 2019	50-day high, then 5 closes inside rng	1-10 days	Bullish	2.20%	-1.10%	-2.40%
April 10, 2019	5 up to 50-high, then down 1	1-10 days	Bullish	1.90%	-1.00%	-2.10%
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			

**The Evidence**

Friday was a day of gains with new all-time closing highs for the SPX and NASDAQ. The SPX closed up 0.5%, the NASDAQ gained 0.3%, and the Russell 2000 rallied 1.0%. Breadth was positive as the NYSE Up Issues % was 67% and the Up Volume % came in at 71%. NYSE volume increased from the levels of the last couple of days.

The moderate gains after a couple of down days did not do anything to trigger compelling new evidence, even with the new highs. The Quantifinder has come up blank for 3 days in a row. With about 1200 studies in there, I cannot recall the last time I saw 3 blank days in a row. So I am not seeing strong short-term edges at the moment. But one thing I thought I would discuss is the upcoming Fed Day and turn of the month on Wednesday. Of course the fact that the calendar is turning to May means we will be leaving the “Best 6 Months” seasonal period. I’ll discuss this in some detail in the intermediate-term section lower down. Here I wanted to look at a study last seen in the 7/31/18 letter. It looked at other instances where the Fed Day and the turn of the month came at the same time. It will become effective for Wednesday. Stats are updated below.

Tomorrow is a Fed Day & it is the 1st day of the month.  
Buy SPX on close. Sell X days later. \$100k/trade. 1988 - 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	14,715.29	11	9	2	81.82	2,122.51	3,603.60	-2,193.65	-4,027.50	0.97	4.35	1,337.75
9	11,948.38	11	9	2	81.82	1,950.47	3,848.24	-2,802.92	-3,955.90	0.70	3.13	1,086.22
8	11,560.99	11	9	2	81.82	1,703.32	2,757.04	-1,884.45	-1,890.24	0.90	4.07	1,051.00
7	9,009.98	11	9	2	81.82	1,540.88	2,683.12	-2,428.98	-2,842.42	0.63	2.85	819.09
6	10,364.50	11	9	2	81.82	1,509.16	2,283.24	-1,608.98	-1,850.40	0.94	4.22	942.23
5	8,953.82	11	9	2	81.82	1,434.07	2,861.76	-1,976.42	-2,148.52	0.73	3.27	813.98
4	7,478.47	11	9	2	81.82	1,125.10	2,272.64	-1,323.73	-1,698.77	0.85	3.82	679.86
3	9,482.18	11	10	1	90.91	1,035.60	2,064.48	-873.80	-873.80	1.19	11.85	862.02
2	2,891.03	11	10	1	90.91	392.21	1,107.92	-1,031.04	-1,031.04	0.38	3.80	262.82
1	1,354.78	11	6	5	54.55	502.93	1,293.60	-332.55	-921.94	1.51	1.81	123.16

Obviously there are not a lot of instances, but they certainly appear encouraging – especially over the 1<sup>st</sup> 3 days. Below is the list of instances with their 3-day results.

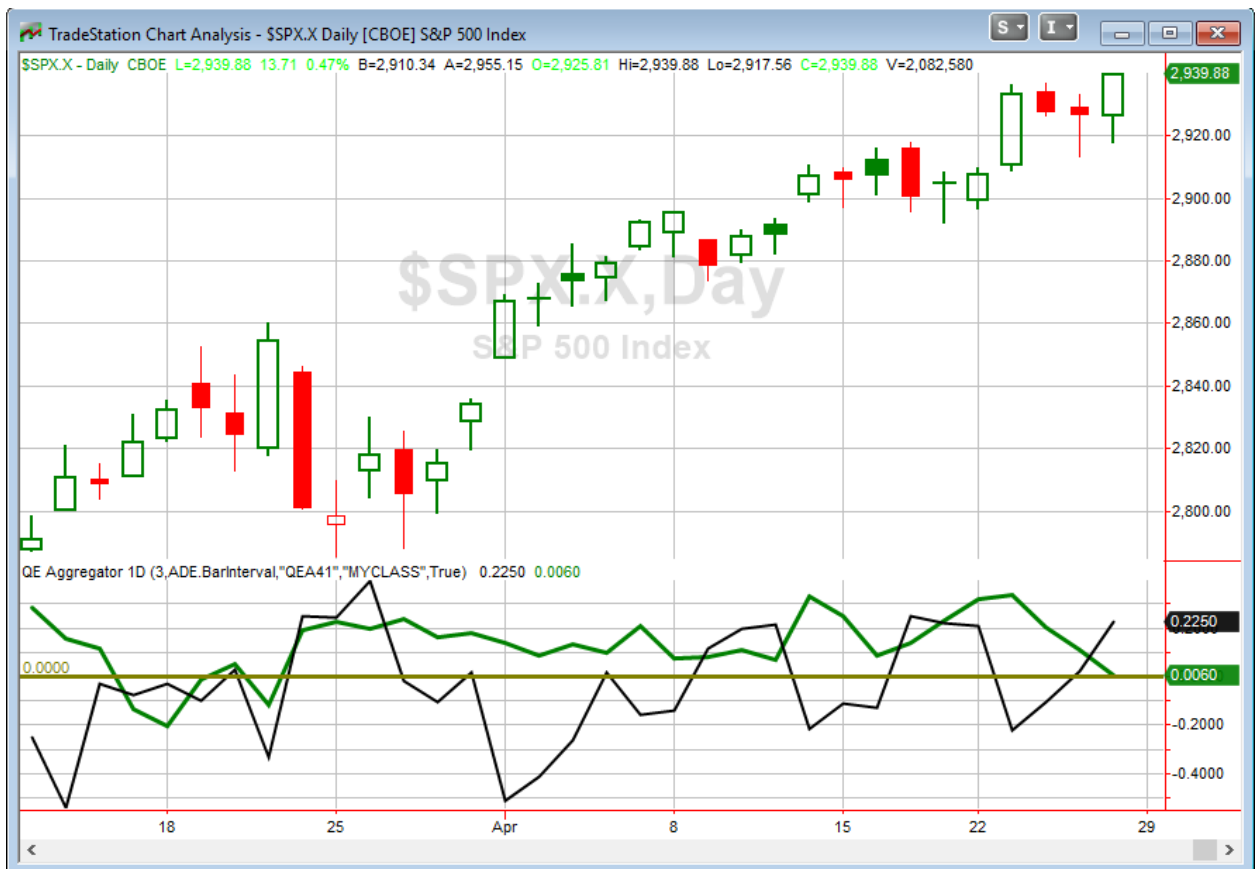
Tomorrow is a Fed Day & it is the 1st day of the month.  
Buy SPX on close. Sell X days later. \$100k/trade. 1988 - present.

Date/Time	Signal	Price	% Profit	Run-up Drawdown
10/31/1988	Buy	\$278.96	0.08%	\$504.78
11/3/1988	Sell	\$279.19		(\$673.04)
9/30/1991	Buy	\$387.86	-0.88%	\$557.69
10/3/1991	Sell	\$384.46		(\$873.80)
6/30/1992	Buy	\$408.13	1.40%	\$1,854.65
7/6/1992	Sell	\$413.84		\$0.00
1/31/1995	Buy	\$470.42	1.75%	\$2,011.88
2/3/1995	Sell	\$478.65		(\$239.56)
6/30/1998	Buy	\$1,133.86	2.07%	\$2,064.48
7/6/1998	Sell	\$1,157.32		(\$1.76)
10/31/2005	Buy	\$1,206.98	1.07%	\$1,453.04
11/3/2005	Sell	\$1,219.94		(\$484.62)
7/31/2012	Buy	\$1,379.32	0.85%	\$1,068.48
8/3/2012	Sell	\$1,390.99		(\$1,776.24)
4/30/2013	Buy	\$1,597.57	1.05%	\$1,295.18
5/3/2013	Sell	\$1,614.42		(\$1,009.98)
1/31/2017	Buy	\$2,278.87	0.81%	\$835.92
2/3/2017	Sell	\$2,297.42		(\$310.46)
10/31/2017	Buy	\$2,575.26	0.49%	\$500.08
11/3/2017	Sell	\$2,587.84		(\$345.42)
7/31/2018	Buy	\$2,816.29	0.85%	\$843.15
8/3/2018	Sell	\$2,840.35		(\$698.25)

Results here appear encouraging. I'll note that every instance saw a run-up of at least 0.5% over the entry price at some point during the 3-day period.

Of course Fed Days and 1<sup>st</sup> trading days of the month both tend to show a more bullish edge when there is a pullback going into them – at the very least a weak close on the day before. So prospects would look even better if we were to get a pullback in the next couple of days.

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



Without any new evidence to consider the green Aggregator Line remained just barely above zero, essentially thanks to the intermediate-term active studies. Positive readings mean net expectations are for upside over the next few days. Meanwhile, the black Differential Line remained above 0. The positive Differential Line reading means SPX is “oversold” versus recent expectations. So expectations are positive and SPX is oversold. This is considered a bullish configuration. Bullish configurations are visible on the chart whenever both lines close above zero. Therefore, the Aggregator signal stayed long 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 2952.50 on Monday. That is 0.4% above Friday's close. This means that the market would need to close up at least 0.4% on Monday to flip from oversold to overbought vs recent expectations.

So the Aggregator is still in a bullish formation. But the upside expectations are entirely thanks to longer-term studies and the "oversold" reading is occurring at a new all-time high. That is not the most convincing combination I have seen. Throw on top of that the fact that SPX and NASDAQ are stretched on a time basis without any closes below their 10ma for 20 days now. And as I will highlight in the next section, we are also in the midst of the biggest QT week we are going to see for a very long time. A pullback is overdue (but short-term bearish evidence is lacking). I see lots of risk here, and not great potential reward. Short-term evidence should look more bullish in a couple of days. I'd love to see a pullback to set it up further and provide a lower-risk entry point. For now though, I'm just waiting and observing.

***Intermediate-term Outlook (2 weeks – 2 months) – updated 4/29 – bullish***

<b>Combo #1</b>	<b>Combo #2</b>	<b>Combo #3</b>
<b>Long</b>	<b>Long</b>	<b>Long</b>

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 positive returns for the market. The SPX closed the week up 1.2%, the NASDAQ rose 1.9%, and the Russell 2000 gained 1.7%. Both the SPX and NASDAQ both closed at new highs, leaving no doubt we are in an uptrend. Of course the calendar turns to May this week. This is often view as a seasonally negative period.

But there is some good news with regards to the current "Worst 6 Months" period. The current uptrend makes a summer swoon less likely. In past years I looked at the "Worst 6 Months" and filtered it by whether the market has suffered a pullback at any point leading up to the end of April. To define "pullback" I started with a clean slate every year on January 1. The high of Jan 1 was the high for the year as of that date. Each time a new high was made I would measure the pullbacks from the highest high to-date. I

broke “Sell in May” down by years the SPX had a 5% pullback before May versus years it did not. Three-quarters of the time we have seen a 5% pullback. The updated results table below shows times where there had been a pullback at some point before May.

It is the last day in April. SPX has pulled back > 5% at some point this year. Buy on close. Sell on close the last day in October. \$100k/trade. 1961 - present.	
<b>All trades</b>	42
Avg. Profit/Loss %	-0.14%
<b>Winners</b>	25 (59.52 %)
Avg. Profit %	6.30%
<b>Losers</b>	17 (40.48 %)
Avg. Loss %	-9.62%
Max. trade % drawdown	-40.49
Profit Factor	0.96
Avg Runup: 8.2% Avg Drawdown: -10.3%	
<b>15 of 42 years saw a drawdown of at least 10% and 7 of them finished with a loss &gt; 10%.</b>	

Of the 42 years where this was the case, 15 of them saw the market drop more than 10% from its April closing price during the next 6 months. And 7 of them were more than 10% lower at the close of October. There were more winning years than losing ones, but the losers were quite a bit bigger and the market has suffered net losses during the May – October period for these 42 years. But this year SPX will NOT be faced with this scenario entering May.

So far in 2019 we have not yet had a 5% pullback. So let’s look at times like now where the market has been strong through April and it has not experienced a 5% pullback at any point.

It is the last day of April. SPX has NOT pulled back > 5% at any point this year.  
Buy on close. Sell on close last day of October. \$100k/trade. 1961 - present.

TradeStation Performance Summary				Expand ▾
All Trades				
Total Net Profit	\$68,300.42	Profit Factor		7.57
Gross Profit	\$78,694.84	Gross Loss	(\$10,394.42)	
Total Number of Trades	16	Percent Profitable		81.25%
Winning Trades	13	Losing Trades		3
Even Trades	0			
Avg. Trade Net Profit	\$4,268.78	Ratio Avg. Win:Avg. Loss		1.75
Avg. Winning Trade	\$6,053.45	Avg. Losing Trade	(\$3,464.81)	
Largest Winning Trade	\$12,957.26	Largest Losing Trade	(\$9,350.64)	

These stats look a LOT different. Thirteen of sixteen years the market closed higher. And the profit factor was over 7.5! Let's take a closer look at the instances to learn a little more.

It is the last day in April. SPX has not pulled back > 5% from high of year so far this year. Buy on close. Sell on close last day in October. \$100k/trade. 1961 - present.				
Date/Time	Signal	Price	% Profit	Run-up Drawdown
4/28/1961	Buy	\$65.31	5.07%	\$5,067.61
10/31/1961	Sell	\$68.62		(\$1,377.90)
4/30/1963	Buy	\$69.80	6.03%	\$7,704.16
10/31/1963	Sell	\$74.01		(\$3,236.32)
4/30/1964	Buy	\$79.46	6.80%	\$7,849.92
10/30/1964	Sell	\$84.86		(\$1,647.98)
4/30/1965	Buy	\$89.11	3.71%	\$4,577.76
10/29/1965	Sell	\$92.42		(\$9,402.36)
4/28/1967	Buy	\$94.01	-0.76%	\$4,570.90
10/31/1967	Sell	\$93.30		(\$7,249.66)
4/30/1971	Buy	\$103.95	-9.35%	\$452.14
10/29/1971	Sell	\$94.23		(\$10,716.68)
4/28/1972	Buy	\$107.67	3.63%	\$5,363.84
10/31/1972	Sell	\$111.58		(\$3,563.52)
4/30/1976	Buy	\$101.64	1.24%	\$6,959.64
10/29/1976	Sell	\$102.90		(\$3,607.61)
4/30/1985	Buy	\$179.83	5.56%	\$9,029.44
10/31/1985	Sell	\$189.82		(\$850.68)
4/28/1989	Buy	\$309.63	9.92%	\$16,357.60
10/31/1989	Sell	\$340.36		(\$1,793.54)
4/28/1995	Buy	\$514.71	12.98%	\$14,734.30
10/31/1995	Sell	\$581.50		(\$325.92)
4/28/2006	Buy	\$1,310.62	5.14%	\$5,991.08
10/31/2006	Sell	\$1,377.94		(\$6,941.08)
4/30/2012	Buy	\$1,397.91	1.02%	\$5,438.60
10/31/2012	Sell	\$1,412.16		(\$9,313.07)
4/30/2013	Buy	\$1,597.57	9.95%	\$11,014.30
10/31/2013	Sell	\$1,756.54		(\$2,308.88)
4/30/2015	Buy	\$2,085.51	-0.29%	\$2,312.87
10/30/2015	Sell	\$2,079.36		(\$10,269.50)
4/28/2017	Buy	\$2,384.20	8.01%	\$8,149.98
10/31/2017	Sell	\$2,575.26		(\$1,290.68)

**Avg Runup: 7.3% Avg Drawdown: -4.7%**

We see here that 2 of the 3 losses were only a decline of < 1%. In other words, 1971 was the only bad year of the bunch. And even 1971 closed with a loss of less than 10%. In fact, only 2 years saw a 10% drawdown, and neither reached 11%. When May has come without a 5% pullback, like 2019, that has been a good thing.

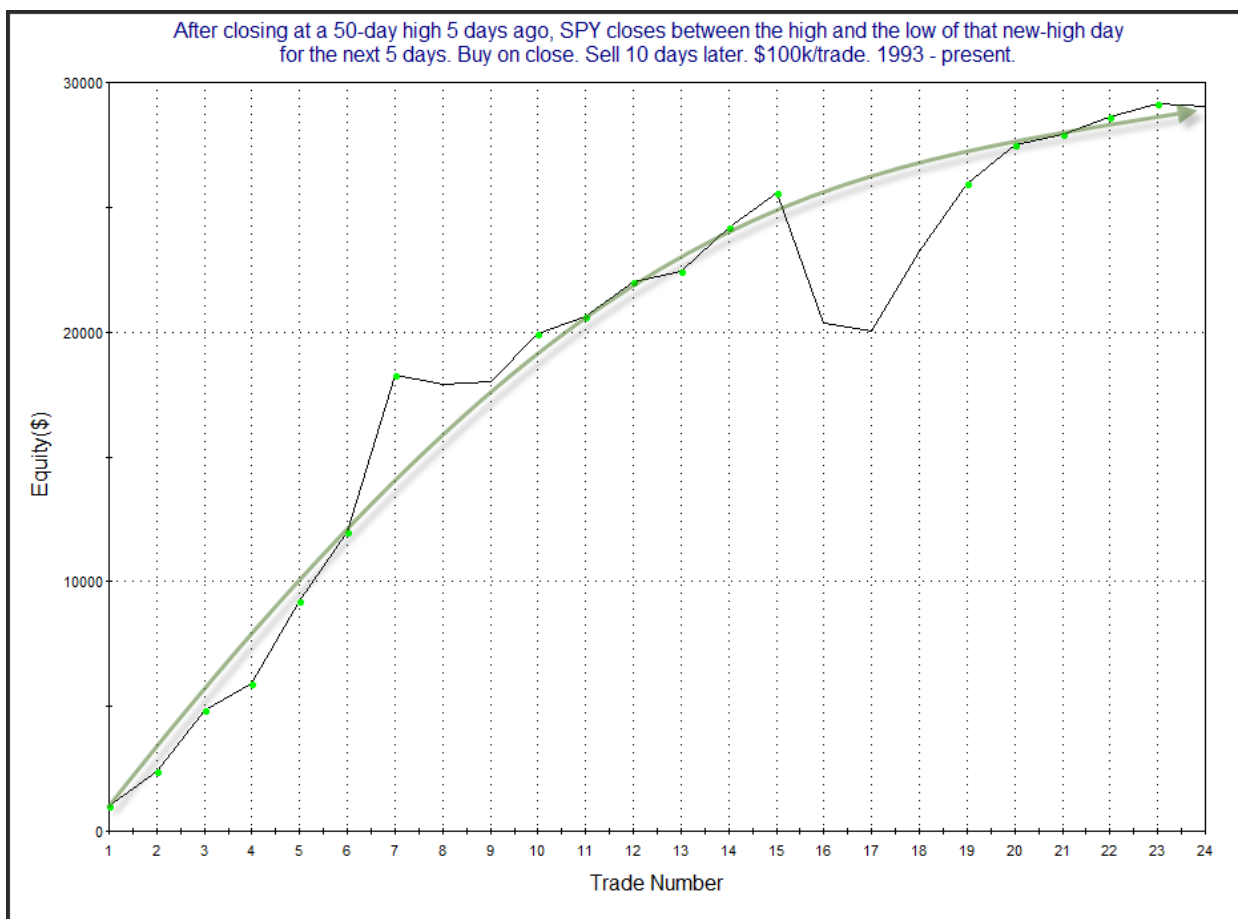
There were also a few new studies that emerged earlier this past week with intermediate-term implications. The 1<sup>st</sup> one below was from the Monday night letter.

*The range over the last week has been extremely tight. Every SPY close in the 5 days since 6/2 has been within the daily range of that 6/2/17 bar. It is said that consolidations are often resolved in the direction of the trend. This guideline suggests that we're more likely to see another leg up from here than a breakdown. The study below tests this concept. It was last seen in the 7/28/16 letter and has been updated.*

After closing at a 50-day high 5 days ago, SPY closes between the high and the low of that new-high day for the next 5 days. Buy on close. Sell X days later. \$100k/trade. 1993 - present.												
X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
10	29,027.52	24	20	4	83.33	1,751.82	6,287.04	-1,502.23	-5,182.56	1.17	5.83	1,209.48
9	26,523.36	24	21	3	87.50	1,411.38	6,322.56	-1,038.54	-2,251.44	1.36	9.51	1,105.14
8	25,717.18	24	20	4	83.33	1,517.32	6,287.04	-1,157.31	-2,060.28	1.31	6.56	1,071.55
7	17,547.49	24	18	6	75.00	1,397.74	5,339.84	-1,268.65	-3,472.29	1.10	3.31	731.15
6	10,039.22	24	16	8	66.67	1,209.51	3,362.56	-1,164.12	-2,992.38	1.04	2.08	418.30
5	11,082.27	24	13	11	54.17	1,455.13	3,031.04	-712.22	-2,425.20	2.04	2.41	461.76
4	13,486.69	24	16	8	66.67	1,157.08	2,806.08	-628.33	-1,541.60	1.84	3.68	561.95
3	13,396.05	24	18	6	75.00	1,022.80	2,296.96	-835.71	-2,368.80	1.22	3.67	558.17
2	6,665.30	25	17	7	68.00	751.89	1,817.10	-873.84	-1,627.93	0.86	2.09	266.61
1	20.44	25	13	12	52.00	465.12	1,433.49	-502.18	-1,100.97	0.93	1.00	0.82

**- 22 of 25 instances (88%) closed above the entry price within 3 days.**  
**- All instances closed above the entry price at some point in the next 2 weeks.**  
**- 22 of 25 instances (88%) closed at a new 50-day high within the next 2 weeks..**

*It certainly appears to confirm the old technical adage. Results favor the long side over the immediate 3-day period and they are even more impressive when looking out 8 to 10 days. Below are some equity curves to see how the edge has played out over time. First, the 10-day.*



*The persistent move from lower left to upper right serves as some confirmation of the upside edge.*

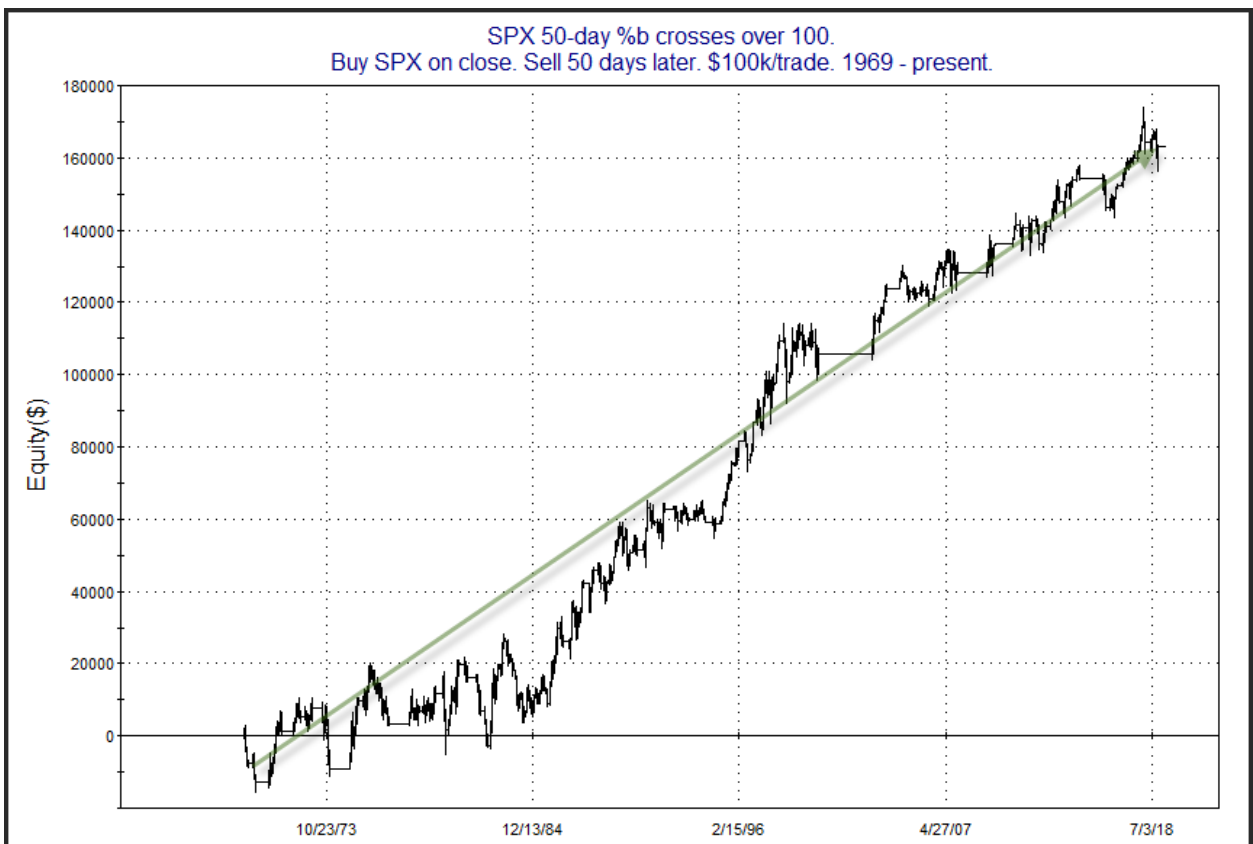
This next study I have copied from Tuesday night's letter.

*There was one study from the 11/29/17 Subscriber Letter that has some potential intermediate-term implications, and it is fairly interesting, so I figured I would talk a little about it. This study looked at the SPX closing price in relation to its 50-day Bollinger Bands. In it I used 2 standard deviations in the Bollinger Band calculation. I used %b to measure where we fell. For those unaware, %b simply measures the distance between the 2 bands. So a reading of 0 means price is right at the lower band. A reading of 100 is right at the upper band. A reading of 50 would be right at the moving average being used – in this case the 50ma. So a move 2 standard deviations above the 50ma would be a %b reading of 100. An updated results table for this study is below.*

**SPX 50-day %b crosses over 100.**  
Buy SPX on close. Sell X days later. \$100k/trade. 1969 - 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
50	163,228.66	121	72	49	59.50	5,061.70	18,408.18	-4,106.40	-15,795.00	1.23	1.81	1,349.00
45	122,933.69	127	72	55	56.69	5,085.77	15,816.57	-4,422.57	-25,812.76	1.15	1.51	967.98
40	132,714.38	131	78	53	59.54	4,543.10	17,624.67	-4,182.02	-15,540.70	1.09	1.60	1,013.09
35	122,915.23	138	82	56	59.42	4,176.86	15,782.13	-3,921.20	-13,617.00	1.07	1.56	890.69
30	74,267.70	144	83	61	57.64	3,448.77	11,920.74	-3,475.08	-10,485.00	0.99	1.35	515.75
25	53,250.94	151	85	66	56.29	3,073.29	10,859.94	-3,151.20	-8,732.16	0.98	1.26	352.66
20	52,229.52	161	89	72	55.28	2,733.65	9,501.30	-2,653.68	-10,205.38	1.03	1.27	324.41
15	56,949.70	177	103	74	58.19	2,365.12	7,843.46	-2,522.39	-9,763.44	0.94	1.31	321.75
10	49,339.83	196	120	76	61.22	1,756.35	8,239.16	-2,123.97	-9,133.53	0.83	1.31	251.73
5	15,829.83	238	136	102	57.14	1,141.50	5,030.81	-1,366.80	-5,817.77	0.84	1.11	66.51

Results generally appear moderately bullish. They seem to suggest that the kind of strong momentum that would have SPX closing above its 50-day Bollinger Band favors more upside over a possible reversal. The “% Profitable” is not terribly high, but I produced a profit curve below to see how the edge has played out over time.

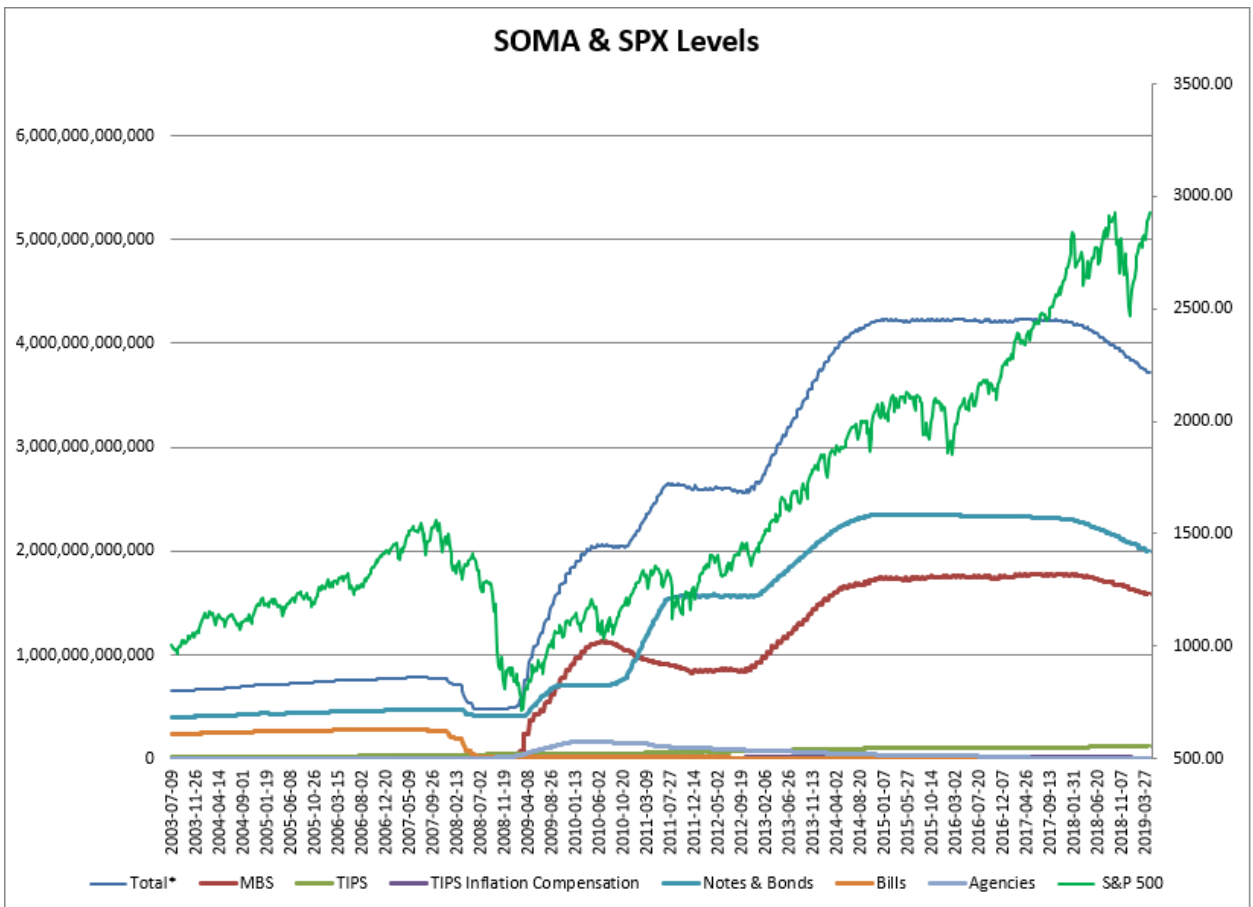


That’s a pretty steady upslope for a study without a very high “% Profitable”. Overall, I like this study enough to add it to the intermediate-term active list, and have done so tonight. There are no new studies being added to the short-term active list.

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 04/17/2019

DOMESTIC SECURITIES HOLDINGS AS OF  
**April 24, 2019**

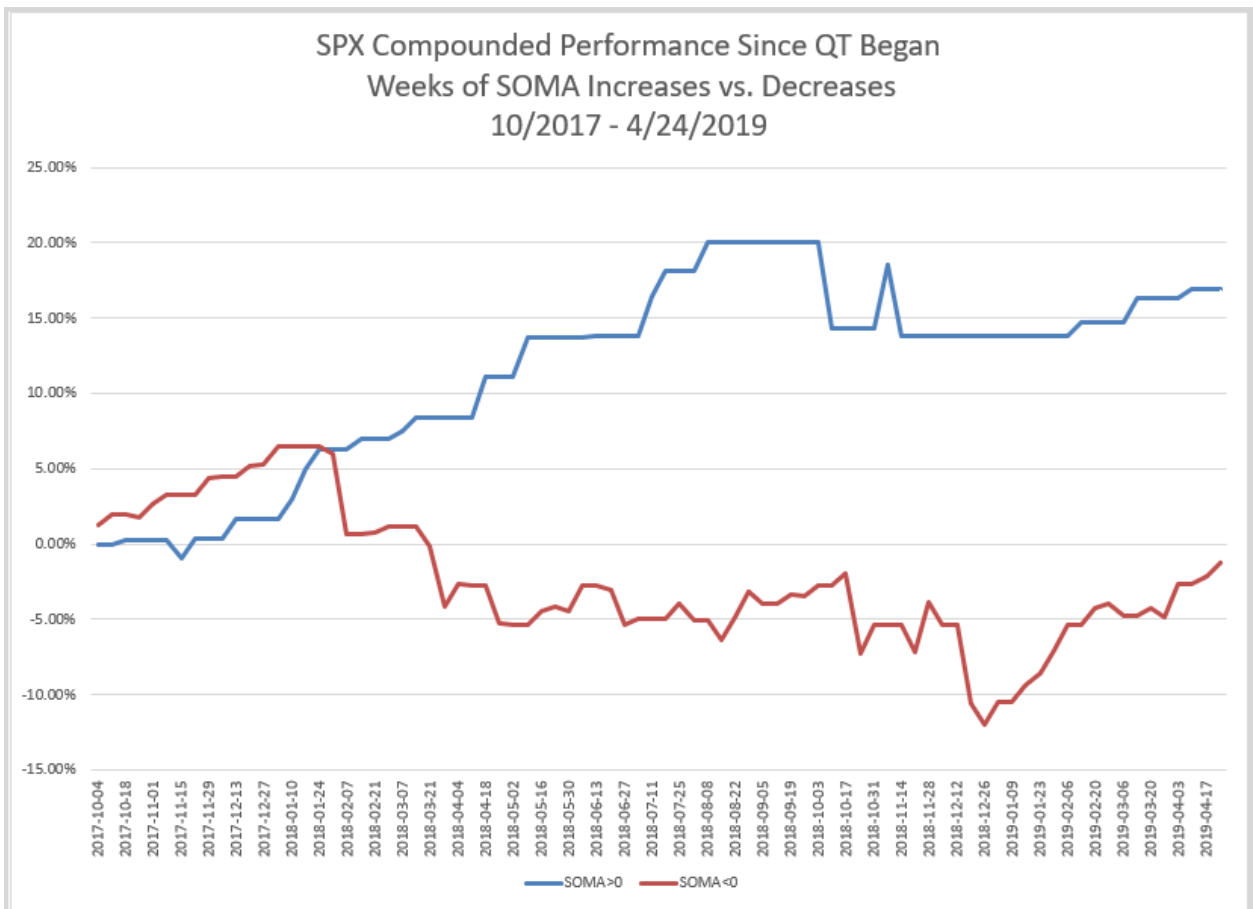
Security Type	Total (in Thousands)
US Treasury Bills (T-Bills)	
US Treasury Notes and Bonds (Notes/Bonds)	2,000,172,900.9
US Treasury Floating Rate Notes (FRN)	16,300,804.9
US Treasury Inflation-Protected Securities (TIPS)*	115,143,915.8
Federal Agency Securities**	2,347,000.0
Agency Mortgage-Backed Securities***	1,583,393,324.0
Total SOMA Holdings	3,717,357,945.6
Change From Prior Week	-4,544,577.0

\*Does not reflect inflation compensation of 21,926,205.3  
\*\*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 04/25/2019 4:30pm.

The Fed's SOMA this past week (Wednesday to Wednesday) saw a decline of about \$4.5 billion. When the policy calls for a reduction of up to \$50 billion/month, that is a fairly moderate number, though it was a little bigger than I was expecting. Meanwhile, the SPX rose 0.9% for the reporting week ending 4/24. That is a very strong 1-week gain for a week in which 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 17.0% gain while the red “contraction week” strategy would have lost 1.3%. 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 04/10/2019

DOMESTIC SECURITIES HOLDINGS AS OF  
**April 17, 2019**

Summary   T-Bills   T-Notes and T-Bonds   FRN   TIPS   Agencies						
Maturity Date	CUSIP	Coupon (%)	Par Value (in Thousands)	% of Total Outstanding <sup>1</sup>	Change in Par from Prior Week <sup>2</sup>	Change in Par from Prior Year <sup>2</sup>
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 large expiration of \$28 billion on Tuesday. 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, the next reporting week, ending on May 1<sup>st</sup>, should see the largest QT for the foreseeable future, thanks to the large treasury expiration. But the week after that should see a QT reprieve. Since QT began, most weeks ending on the 7<sup>th</sup>, 8<sup>th</sup>, or 9<sup>th</sup> have actually seen a small rise in the SOMA, though there have been a couple that posted a small decline. Anyway, it appears odds favor a very mild change, which could very well be a rise for the week ending Wednesday May 8<sup>th</sup>.

Intermediate-term indications continue to point mostly higher, despite the calendar nearing May. All 3 Market Timing Course signals are long. And there is a sizable list of studies on the intermediate-term active list which are bullish. They look at things like price momentum, breadth, the recent consolidation near new highs, and NASDAQ

leadership. The overall trend looks strong with SPX and NASDAQ both at new highs. 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 intend to be more aggressive with longs than I will with short positions.

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