

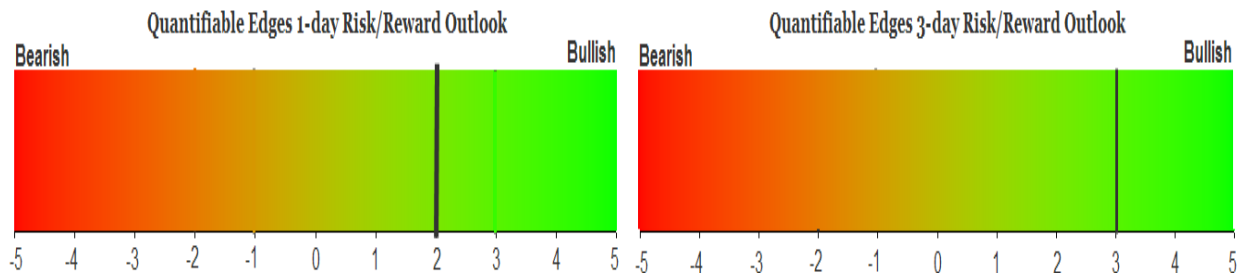
QUANTIFIABLE EDGES SUBSCRIBER LETTER

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

March 25, 2019

Volume 12 Issue 57

Market Overview



Signals Overview

Aggregator	CBI Reading
Long	2

Tonight's Research Points

- Fridays tend to have more severe overreactions and more reliable bounces than other days, though the bounce has not necessarily been immediate in recent years.
- We are entering a possible bullish seasonal period.
- QT is going away over the next few months.
- We should still see some SOMA declines over the next few weeks, which could provide a headwind for the market.

Short-term Outlook

The Bottom Line

The Aggregator has flipped to bullish with the SPX quickly turning oversold and evidence pointing upwards. I believe there is a strong chance of a bounce in the next few days.

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						
March 25, 2019	VIX up 20% on Friday	1-4 days	Bullish			
March 25, 2019	Fri dn 1.5x 20-day ATR	1-6 days	Bullish			
March 25, 2019	1% decline 4th Fri of month	1-6 days	Bullish			
March 25, 2019	4th Friday of March	1-4 days	Bullish			
March 21, 2019	Fed Day lower along with yesterday	1-6 days	Bullish	2.00%	-1.40%	-3.00%
Active - Long Term						
March 6, 2019	1st close under 10ma in > 25 days	1-19 days	Bullish	4.40%	-0.80%	-2.00%
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 big down day for the market. SPX lost 1.9%, the NASDAQ dropped 2.5%, and the Russell 2000 fell 3.6%. Breadth was negative as the NYSE Up Issues % was 19% and the Up Volume % came in at 14%. NYSE volume rose some from Thursday's level.

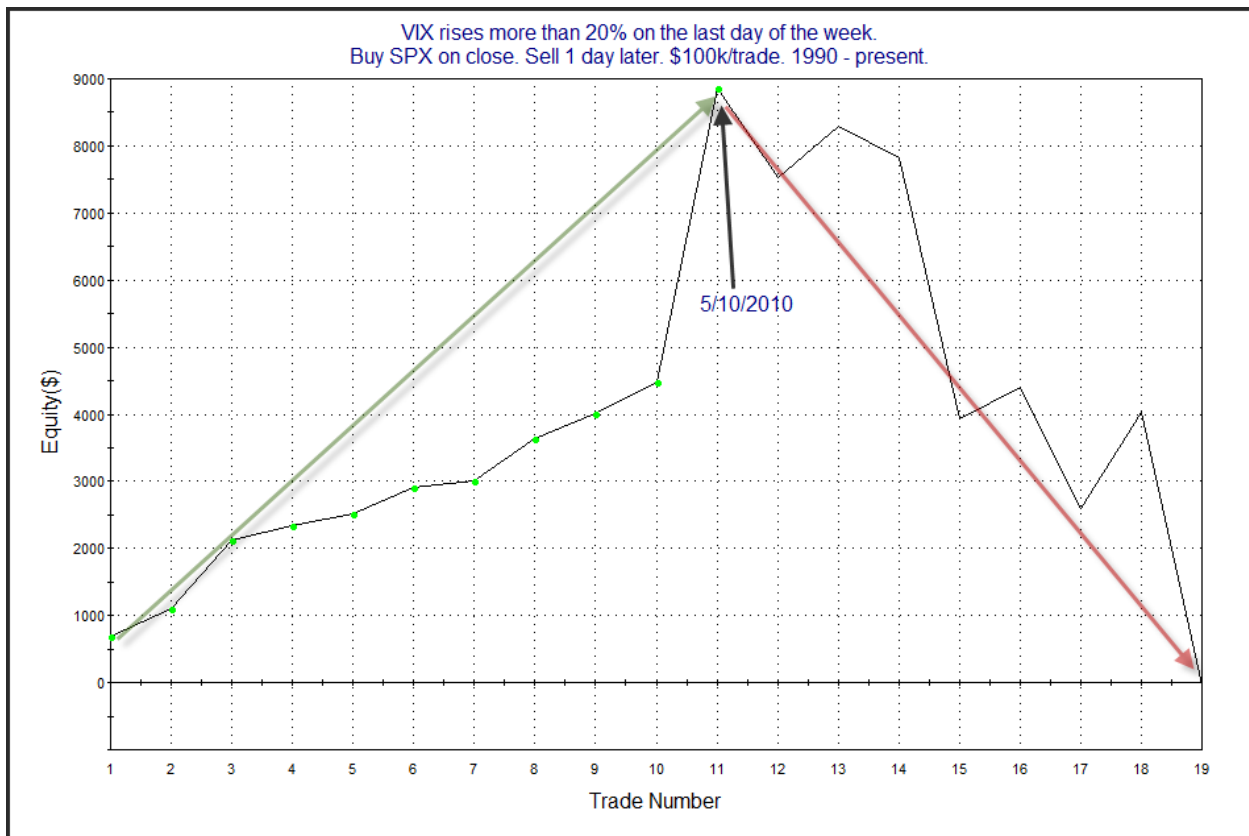
There were a few studies that noted the strong selling occurred on a Friday. Both the Crash of '29 and the Crash of '87 happened on Monday. The Crash of '87 is still remembered by some traders that are active today. In 1987 there was a strong selloff on Friday and then all hell broke loose on Monday. From 1987 up until the last few years, strong Friday selloffs were almost always followed by an immediate bounce on a Monday. Perhaps this was due to the fact that fear of a crash caused what might otherwise be an ordinary selloff to become exaggerated and overdone on Fridays. Or perhaps it was just that people didn't want to hold over the weekend. Whatever the reason, the tendency to bounce was very strong. And I noted it a few ways over the years. But recently I have not seen Monday provide the immediate reversal it previously had. I have more often seen further selling on Monday, and then the strong bounce ensued. The two studies I will highlight below last appeared in the 2/5/18 letter. (Both got overrun to the downside in the "VIXplosion" selloff.) They exemplify well what I am talking about. 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.

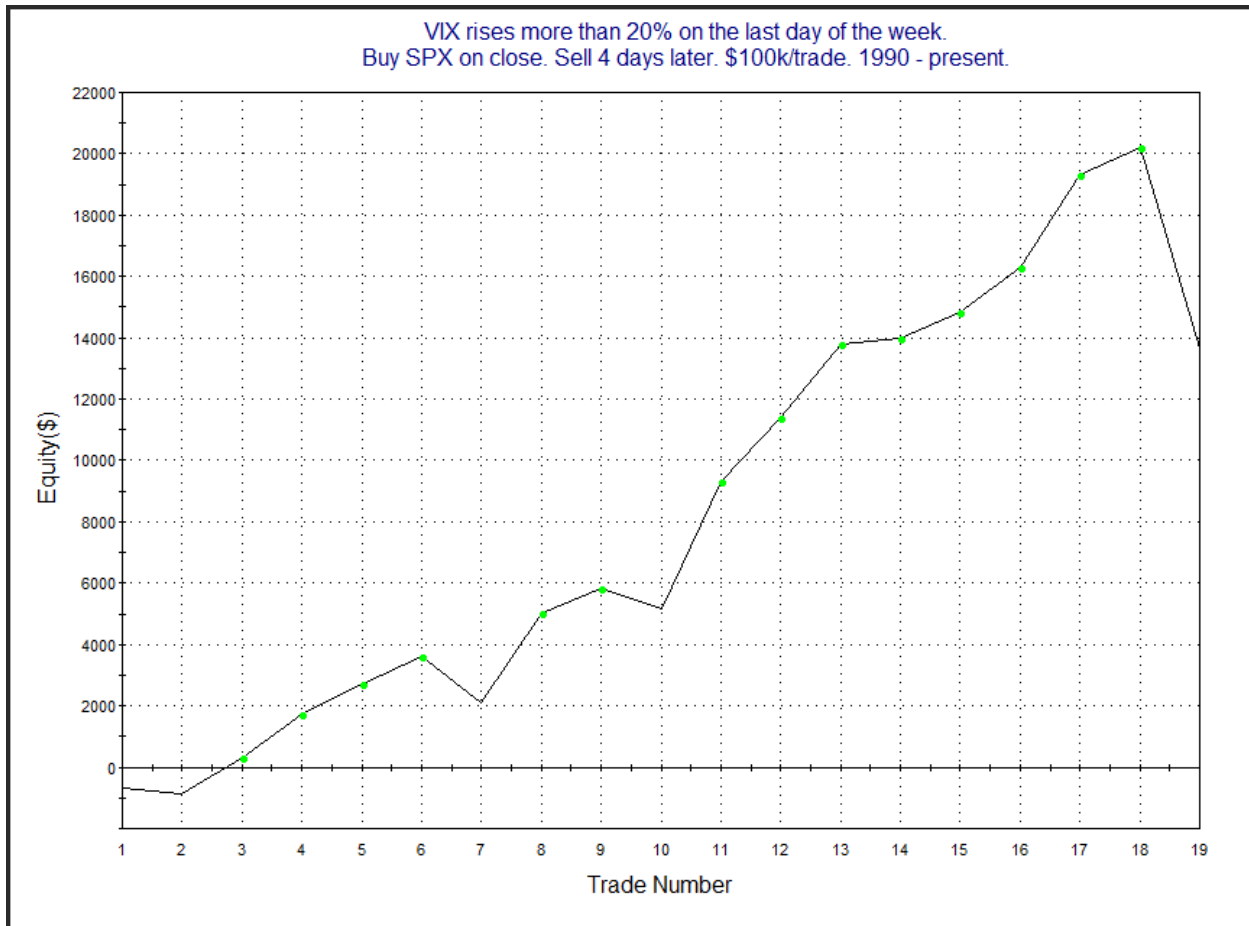
X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
5	13,422.14	19	13	6	68.42	1,743.59	3,216.85	-1,540.76	-5,132.88	1.13	2.45	706.43
4	13,670.85	19	14	5	73.68	1,657.56	4,190.40	-1,906.99	-6,520.68	0.87	2.43	719.52
3	8,393.59	19	11	8	57.89	1,640.70	5,471.10	-1,206.77	-2,896.92	1.36	1.87	441.77
2	5,020.38	19	12	7	63.16	1,161.68	4,041.90	-1,274.26	-5,163.50	0.91	1.56	264.23
1	-41.83	19	14	5	73.68	824.18	4,396.50	-2,316.07	-4,074.84	0.36	1.00	-2.20

18 of 19 instances (95%) closed above the entry price at some point in the next week.

Monday does not appear to provide strong stats, but when we look out 4-5 days, odds look very good. Let's look at both the 1-day and 4-day profit curves.



After moving higher 11 times in a row between 1990 – 2010, Monday's have struggled following this setup since. Now the 4-day...



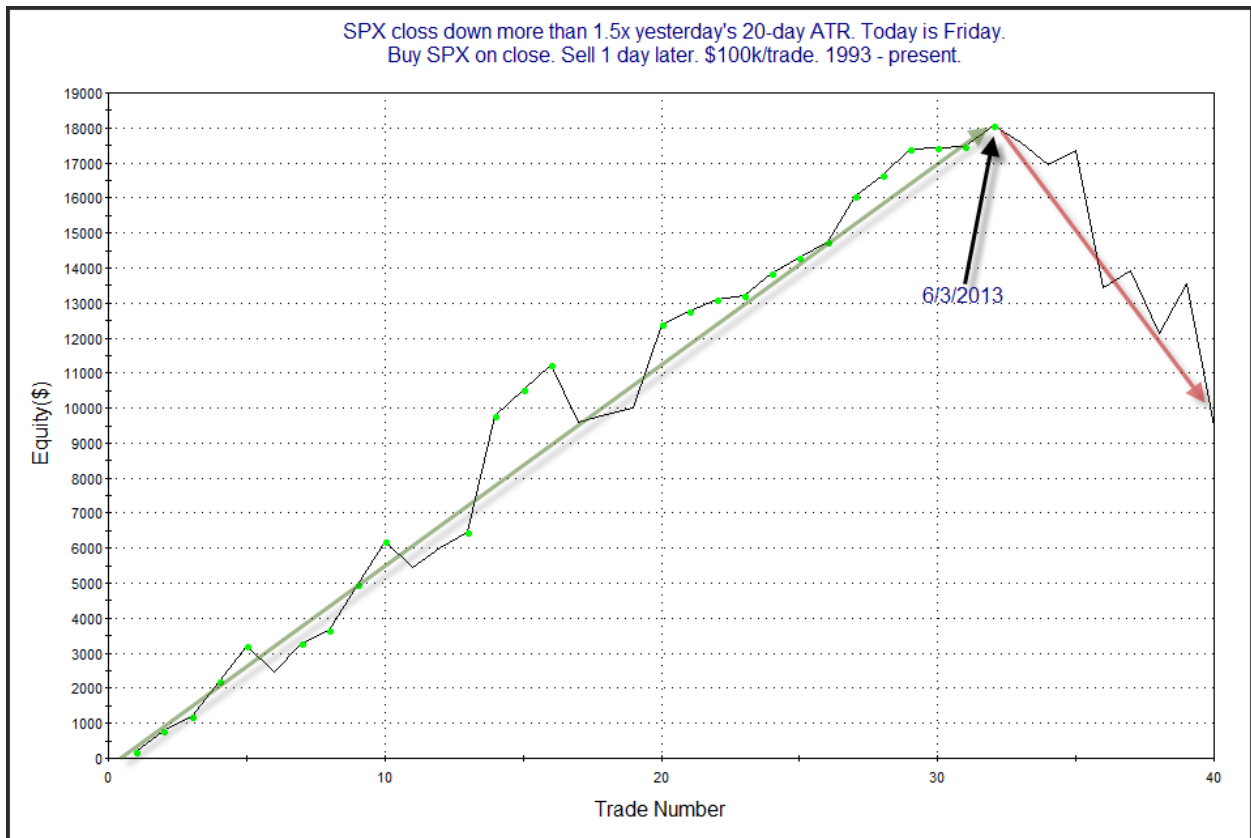
Aside from the VIXplosion loser I noted earlier, there has NOT been any struggle in this curve, and it still seems to suggest a strong edge over the next 4 days. So while the setup has not necessarily led to an immediate bounce in recent years, it appears one is likely nearby.

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 that same 2/5/18 subscriber letter and has been updated.

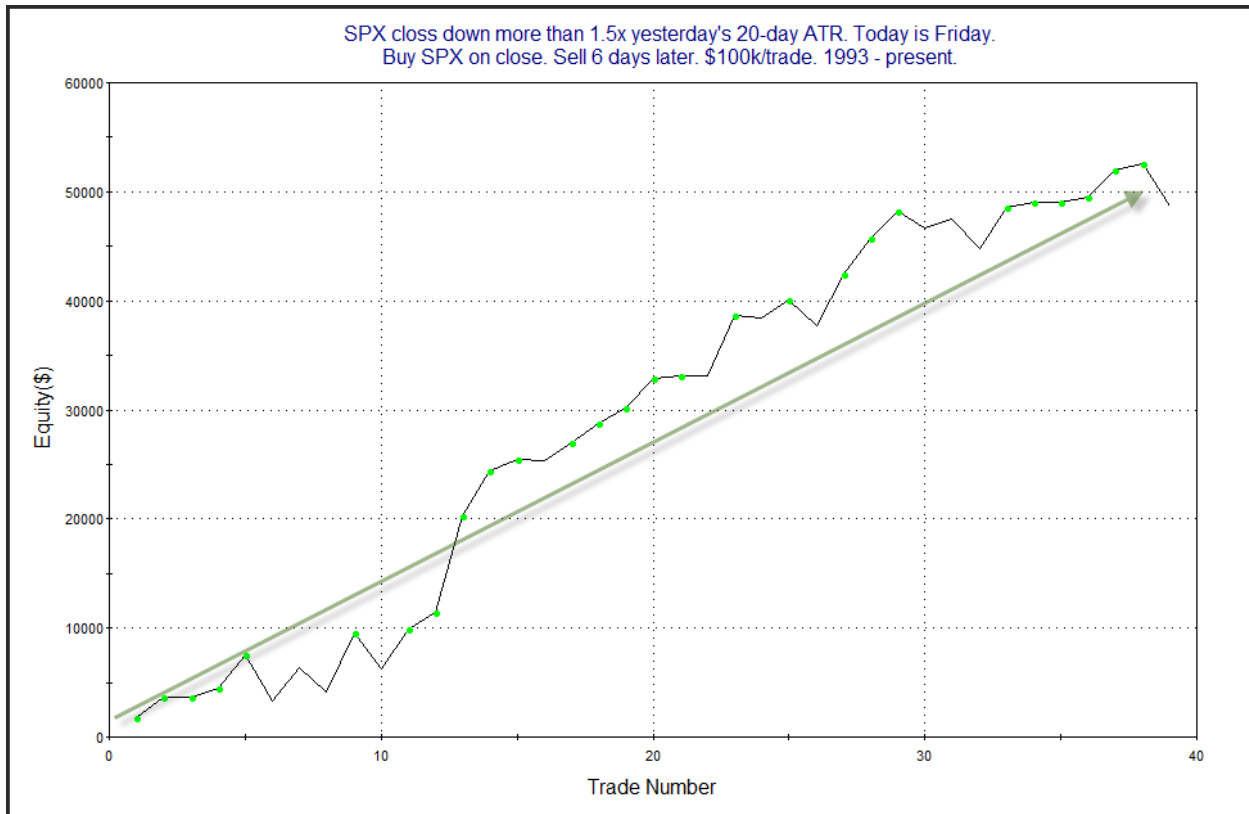
SPX close down more than 1.5x yesterday's 20-day ATR. Today is Friday.
Buy SPX on close. Sell X days later. \$100k/trade. 1993 - present.

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	41,293.67	39	25	14	64.10	2,993.95	9,241.60	-2,396.80	-6,049.40	1.25	2.23	1,058.81
9	44,342.09	39	25	14	64.10	2,864.52	7,602.40	-1,947.92	-5,483.80	1.47	2.63	1,136.98
8	47,331.93	39	26	13	66.67	2,754.30	7,949.70	-1,867.68	-3,550.72	1.47	2.95	1,213.64
7	40,881.42	39	25	14	64.10	2,713.66	7,662.81	-1,925.72	-4,599.52	1.41	2.52	1,048.24
6	48,708.98	39	29	10	74.36	2,382.17	8,870.96	-2,037.39	-4,202.80	1.17	3.39	1,248.95
5	34,062.91	40	27	13	67.50	2,211.05	5,393.97	-1,971.96	-6,368.04	1.12	2.33	851.57
4	25,581.59	40	27	13	67.50	1,847.94	5,731.96	-1,870.22	-6,520.68	0.99	2.05	639.54
3	23,505.44	40	24	16	60.00	1,815.77	5,215.85	-1,254.57	-3,492.36	1.45	2.17	587.64
2	12,429.82	40	24	16	60.00	1,399.95	6,245.15	-1,323.06	-5,163.50	1.06	1.59	310.75
1	9,484.73	40	32	8	80.00	732.54	3,322.23	-1,744.58	-4,074.84	0.42	1.68	237.12

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.



Here again we see a struggle in recent years for the Monday returns. But now the 6-day curve.



No struggle apparent here. I continue to like this study and have added it to the short-term active list.

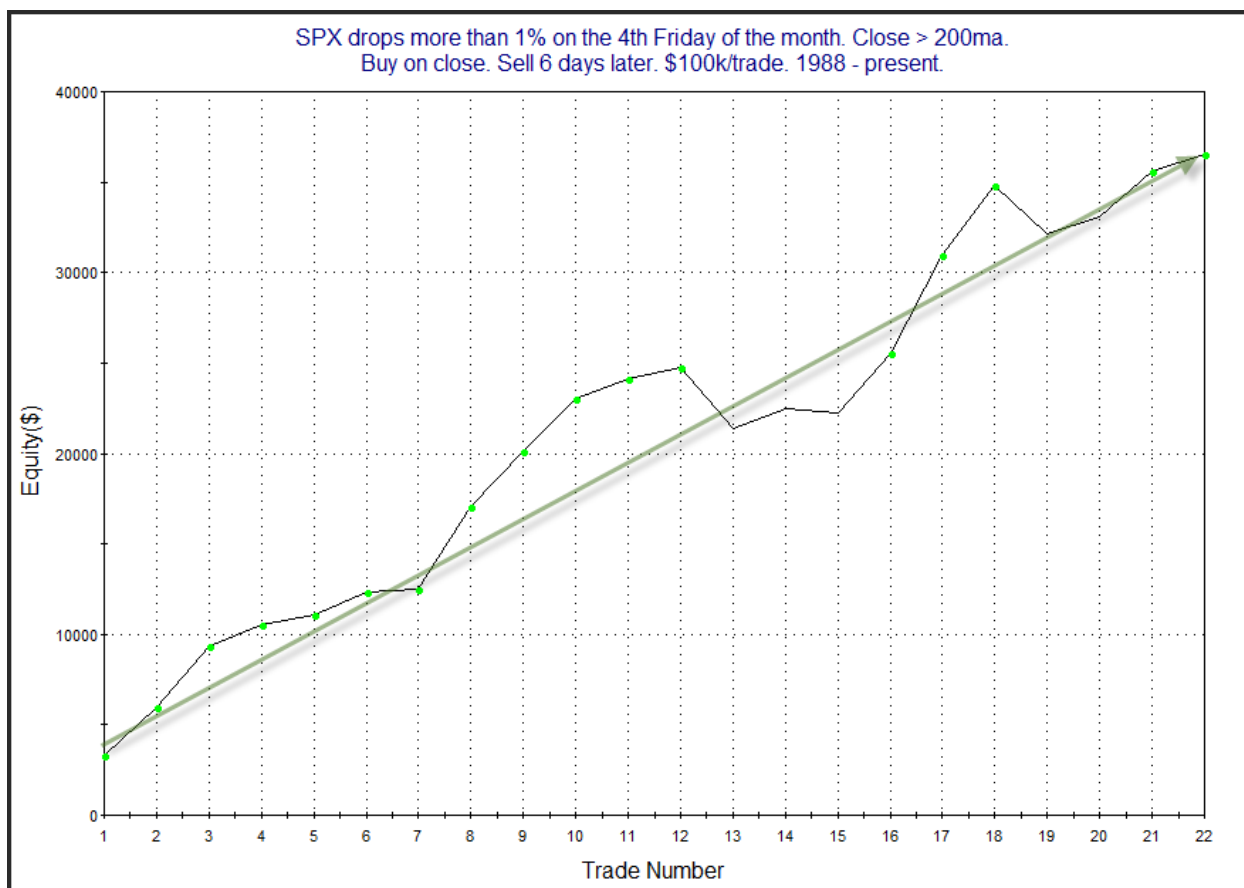
We frequently find impressive edges emerge when there is a strong selloff heading into or during a bullish seasonal period. The study below suggests this may be the case currently. It is from the 7/27/15 letter and looks at strong selloffs on the last Friday of the month. Stats are updated.

SPX drops more than 1% on the 4th Friday of the month. Close > 200ma.
Buy 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	36,321.09	22	17	5	77.27	2,374.28	4,893.14	-808.35	-2,326.87	2.94	9.99	1,650.96
9	32,719.13	22	16	6	72.73	2,481.41	5,877.30	-1,163.91	-2,607.15	2.13	5.69	1,487.23
8	38,302.51	22	17	5	77.27	2,706.56	6,612.06	-1,541.82	-3,045.20	1.76	5.97	1,741.02
7	40,106.77	22	18	4	81.82	2,601.71	5,956.07	-1,681.00	-3,145.48	1.55	6.96	1,823.04
6	36,563.40	22	19	3	86.36	2,254.61	5,415.54	-2,091.37	-3,378.24	1.08	6.83	1,661.97
5	30,172.03	22	16	6	72.73	2,418.82	5,555.16	-1,421.52	-3,993.72	1.70	4.54	1,371.46
4	27,683.77	22	18	4	81.82	1,804.53	4,731.13	-1,199.46	-2,157.84	1.50	6.77	1,258.35
3	16,547.84	22	15	7	68.18	1,584.40	4,042.74	-1,031.17	-3,401.24	1.54	3.29	752.17
2	13,843.67	22	15	7	68.18	1,422.52	4,259.29	-1,070.59	-2,061.64	1.33	2.85	629.26
1	5,569.53	22	13	9	59.09	1,124.89	2,671.02	-1,006.01	-1,922.40	1.12	1.62	253.16

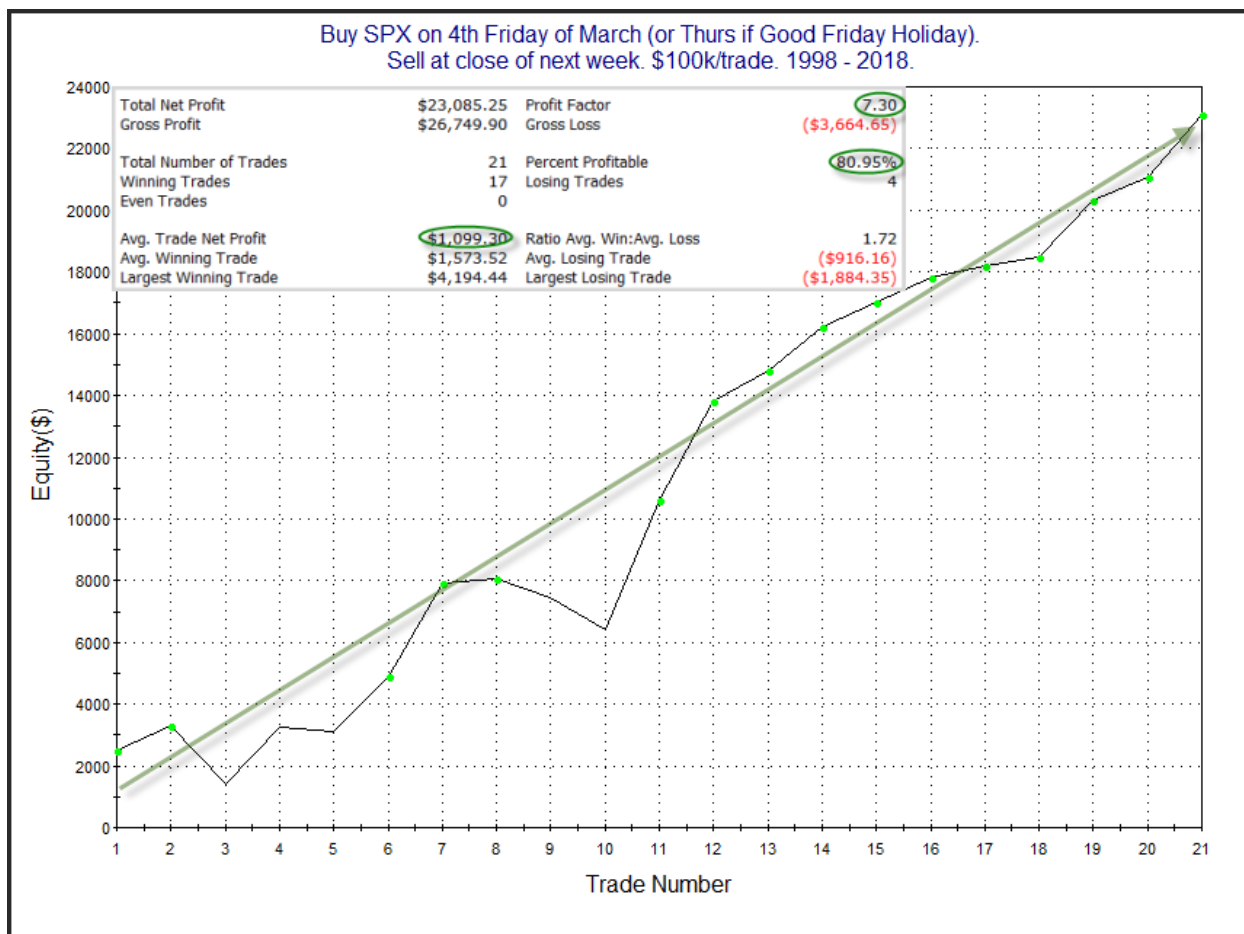
21 of 22 instances (95%) closed above the entry price at some point in the next week.

The stats here suggest a strong tendency to bounce at some point over the next few days. (Though not necessarily on Monday.) Looking out 6 days, we would see the following profit curve.



Certainly nothing wrong with this curve, since it has moved from lower left to upper right quite consistently.

With regards to possible seasonality, we are in an interesting period right now. The last couple of weeks the market played out well according to seasonal patterns. We saw March opex week put in nice gains as it often does. And then we saw the week after Quad-witching suffer losses this past week. And as I noted last weekend, that is commonplace. Interestingly, the week after the 4th Friday in March has been a strong one over the last 21 years. (Not as much before that.) We can see this in the study below.

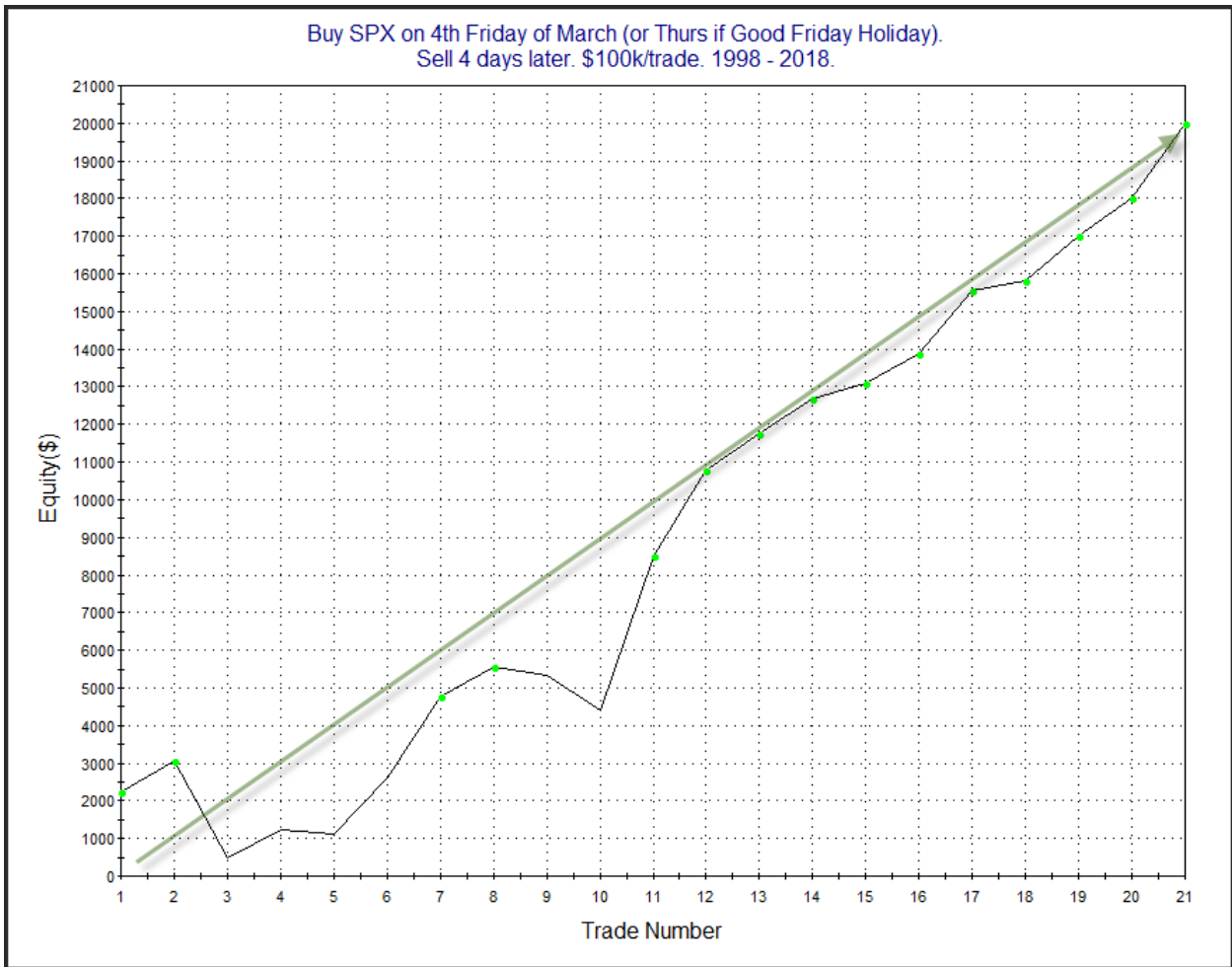


That is an encouraging looking curve and bullish stats. Let's see how it has broken down on a daily basis.

**Buy SPX on 4th Friday of March (or Thurs if Good Friday Holiday).
Sell X days later. \$100k/trade. 1998 - 2018.**

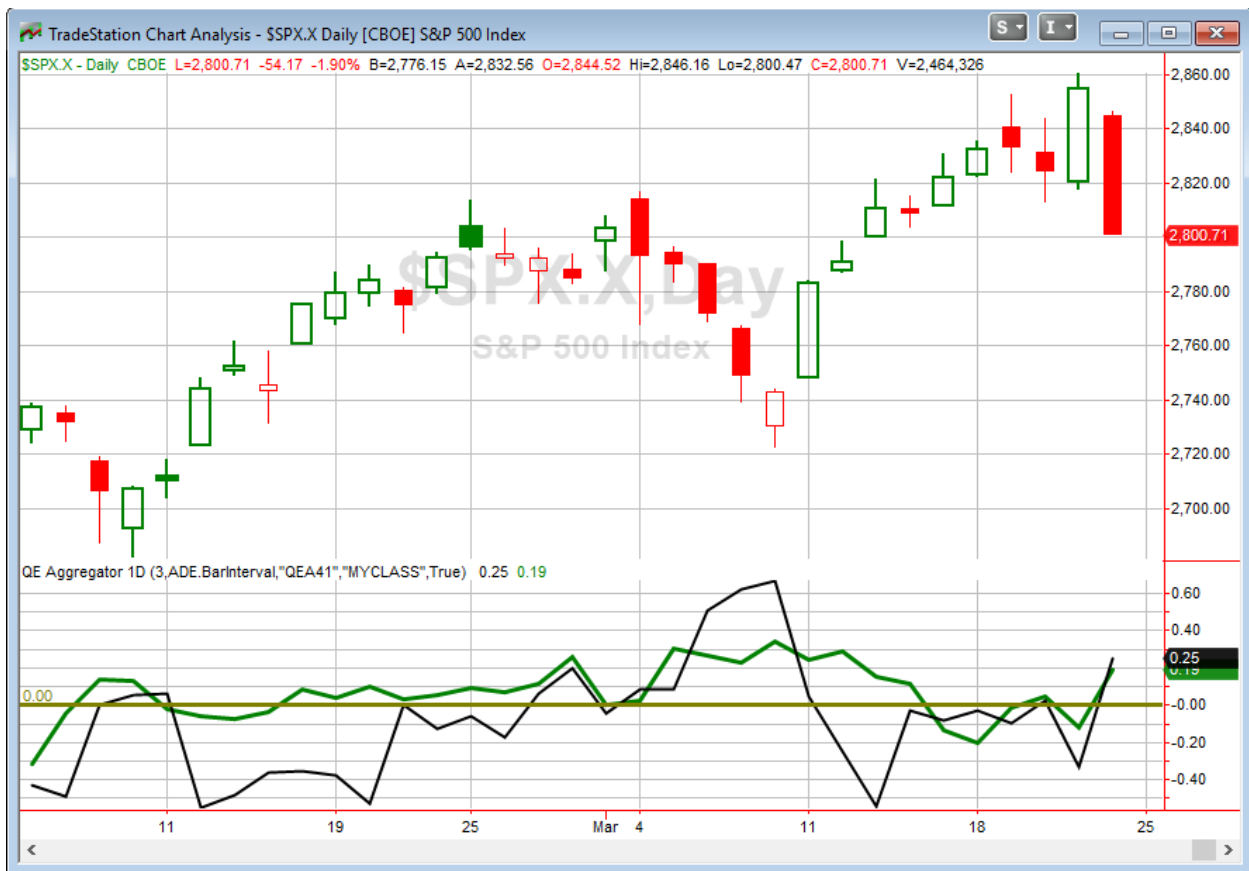
X Days	All: Net Profit	All: Total Trades	All: Winning Trades	All: Losing Trades	All: % Profitable	All: Avg Winning Trade	All: Max Winning Trade	All: Avg Losing Trade	All: Max Losing Trade	All: Win/Loss Ratio	All: ProfitFactor	All: Avg Trade
5	23,879.78	21	16	5	76.19	1,741.30	4,194.44	-796.21	-1,884.35	2.19	7.00	1,137.13
4	20,001.55	21	17	4	80.95	1,401.94	4,111.60	-957.87	-2,575.30	1.46	6.22	952.45
3	14,331.30	21	15	6	71.43	1,192.80	3,977.08	-593.46	-1,302.72	2.01	5.02	682.44
2	11,626.44	21	14	7	66.67	1,311.07	4,175.44	-961.22	-2,204.54	1.36	2.73	553.64
1	4,198.14	21	12	9	57.14	1,009.28	2,671.02	-879.25	-3,466.02	1.15	1.53	199.91

Numbers here are very good. Though they are slightly different than those above. That is because Easter will sometime fall during this period and sometimes the following week is 4 days and sometimes it is 5 days. Below is a look at the 4-day profit curve.



Again, no red flags based on the curve. There appears to be a good chance the market will have a seasonal wind at its back this upcoming week. But I do have 2 concerns about the above study: 1) As already mentioned, Easter sometimes falls during this time, so some of the positive seasonality may be due to the holiday. 2) The turn of the month often offers good numbers. And early April has seen a lot of good returns over the years. Often you will get a little early-April action in the week following the 4th Friday of March. But that also is not the case this year. So the market MAY have a bullish seasonal wind at its back this week, but my confidence is a little lower in that than the seasonal studies I have shared the last couple of weeks.

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



With this weekend's new evidence considered, the green Aggregator Line rose back above zero. Positive readings mean net expectations are for upside over the next few days. Meanwhile, the black Differential Line also rose 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 flipped to long at the close.

Based on the current active studies, expectations are set to remain bullish on Monday. It would take some very compelling new bearish evidence in order to change this. The Differential Pivot will be 2818.84 on Monday. That is 0.65% above Friday's close. Therefore, SPX would need to close up 0.65% on Monday in order to move from oversold to overbought versus expectations.

The Aggregator has quickly flipped back and forth the last couple of days and done a nice job of catching the swings. Unfortunately, I have been conservative with my entries and did not really take advantage well. And if the market takes off immediately on Monday, I may be a bit too conservative again. I like the evidence and think the SPX is setting up well for a bounce in the next few days. But it is just down 1 day from a high level, and most of the studies we saw tonight have seen the 1-day returns struggle in recent years before the bounce occurred. So rather than jump right in with an entry at the current level, I'll be looking for a bargain entry either with a large gap down on Monday, or a lower close. If I can get in either of those ways, I'll look to take a small position with the intention of continuing to scale in over the next few days if we get further selling.

Intermediate-term Outlook (2 weeks – 2 months) – updated 3/25 – 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 was back and forth, with the market finishing on a sour note. The SPX closed the week down 0.8%, the NASDAQ lost 0.6%, and the Russell 2000 fell 3.1%. Both the SPX and NASDAQ made new 50-day highs as late as Thursday, and both remain above their 200ma, so the intermediate-term trend certainly appears to be up despite Friday's selling.

Perhaps the biggest news this week that will have a longer-term influence came from the Fed. In Wednesday night's letter I discussed their policy announcement and changes some. I have copied that commentary below.

The Fed's statement was regarded as dovish by the market. Interest rates did not change, and they do not anticipate changing them anytime in 2019. More interesting from a policy and trading standpoint, are the upcoming changes to the Quantitative Tightening (QT) program. The Fed decided it would begin tapering the amount of QT starting in May, and then stop it at the end of September. I have pasted the new schedule below, taken from the Fed's website.

MONTHLY CAPS ON SOMA SECURITIES REDUCTIONS		
	TREASURY SECURITIES	AGENCY SECURITIES*
Oct 2018 – Apr 2019	\$30 billion	\$20 billion
May 2019 – Sep 2019	\$15 billion	\$20 billion
From Oct 2019	\$0 billion	\$20 billion**

*Applies to combined principal payments of agency debt and agency MBS.
 **The first \$20 billion of any agency principal payments received will be reinvested in Treasury securities. Any additional agency principal payments above \$20 billion will be reinvested in agency MBS.

You'll note that the \$20 billion / month Agency Reductions starting in October are really just a rollover into treasuries. It is not anticipated to reduce the SOMA. More clarification on the Fed's intention after September can be found in the statement below. (This was also taken from the Fed's website.)

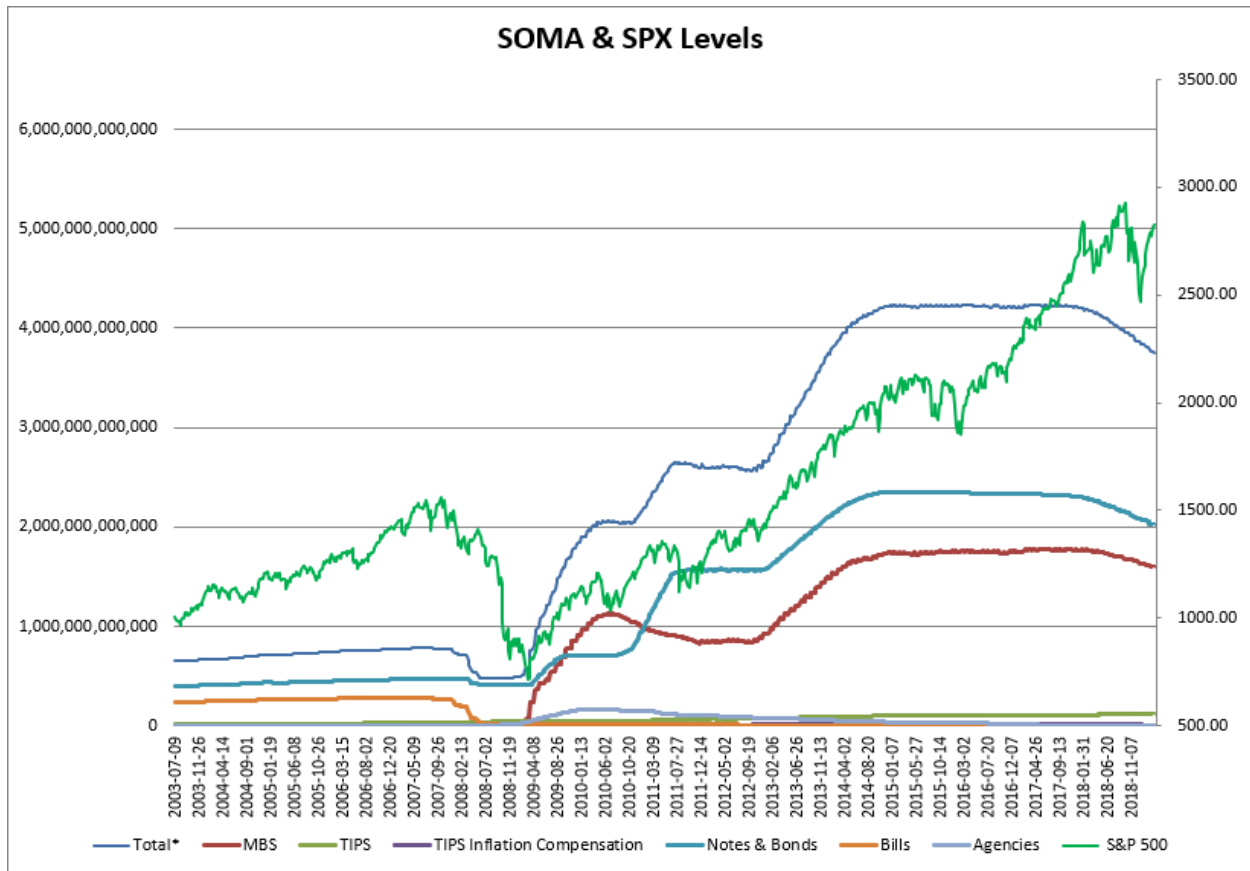
- The average level of reserves after the FOMC has concluded the reduction of its aggregate securities holdings at the end of September will likely still be somewhat above the level of reserves necessary to efficiently and effectively implement monetary policy.
 - In that case, the Committee currently anticipates that it will likely hold the size of the SOMA portfolio roughly constant for a time. During such a period, persistent gradual increases in currency and other non-reserve liabilities would be accompanied by corresponding gradual declines in reserve balances to a level consistent with efficient and effective implementation of monetary policy.
- When the Committee judges that reserve balances have declined to this level, the SOMA portfolio will hold no more securities than necessary for efficient and effective policy implementation. Once that point is reached, the Committee will begin increasing its securities holdings to keep pace with trend growth of the Federal Reserve's non-reserve liabilities and maintain an appropriate level of reserves in the system.

It will be interesting to see if the market continues to be reactive to SOMA changes leading up to October, and more so how small changes starting in October might influence the market. Even if we get into a period of a stable to slightly rising SOMA, it will be important to monitor the relationship of the SOMA to the market. And as we have found over the last 10 years here, and 15+ of SOMA data, SOMA changes have mattered. So even if the SOMA flatlines for a period and seems to have little or no impact on market movement, careful monitoring of future policy changes will be very important.

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 03/13/2019

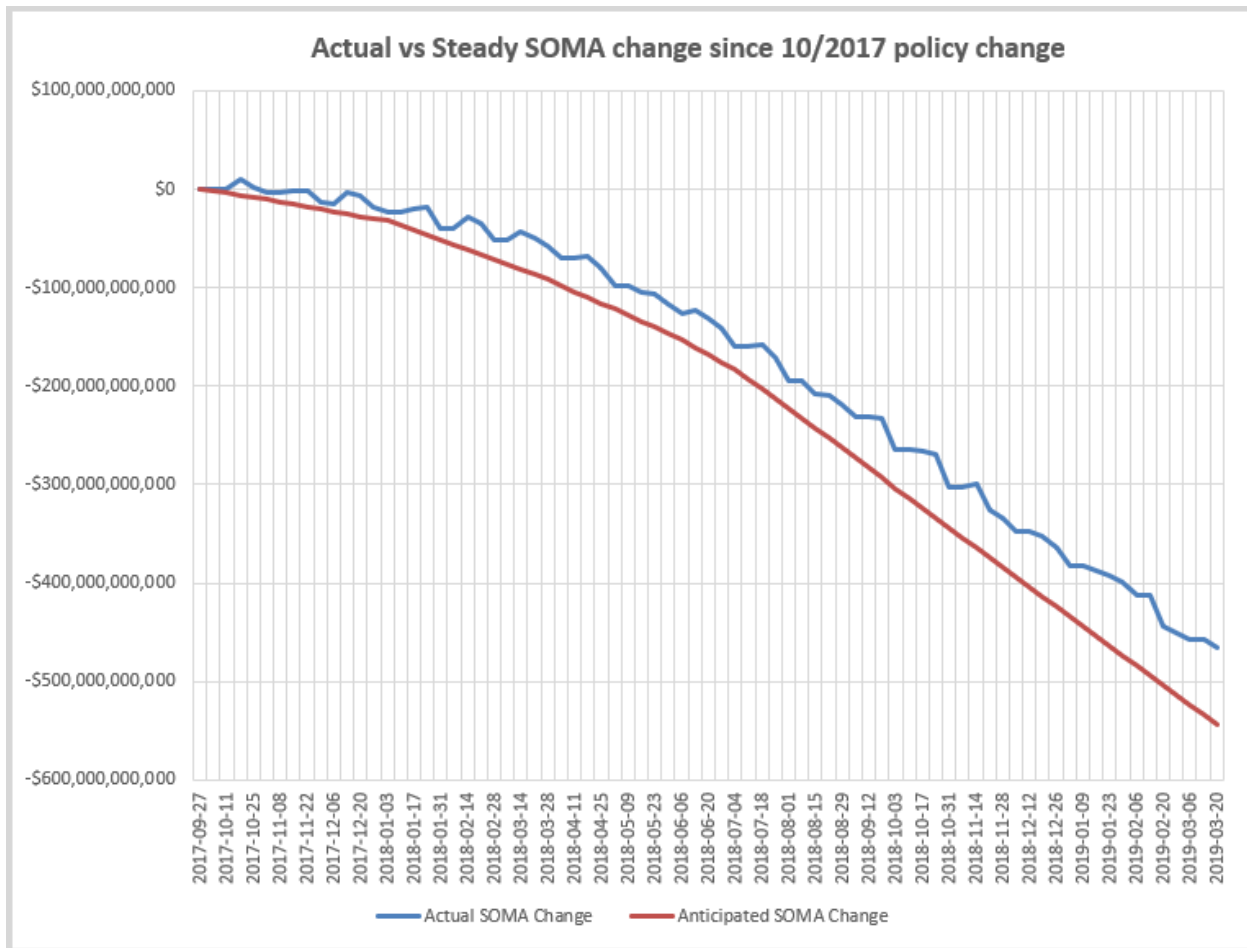
DOMESTIC SECURITIES HOLDINGS AS OF
March 20, 2019

Summary		T-Bills	T-Notes and T-Bonds	FRN	TIPS	Agencies
Security Type	Total (in Thousands)					
US Treasury Bills (T-Bills)						
US Treasury Notes and Bonds (Notes/Bonds)	2,022,710,118.2					
US Treasury Floating Rate Notes (FRN)	16,300,804.9					
US Treasury Inflation-Protected Securities (TIPS)*	115,153,915.8					
Federal Agency Securities**	2,409,000.0					
Agency Mortgage-Backed Securities***	1,599,471,503.0					
Total SOMA Holdings	3,756,045,341.9					
Change From Prior Week	-8,295,121.0					

*Does not reflect inflation compensation of 21,372,649.2
 **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.

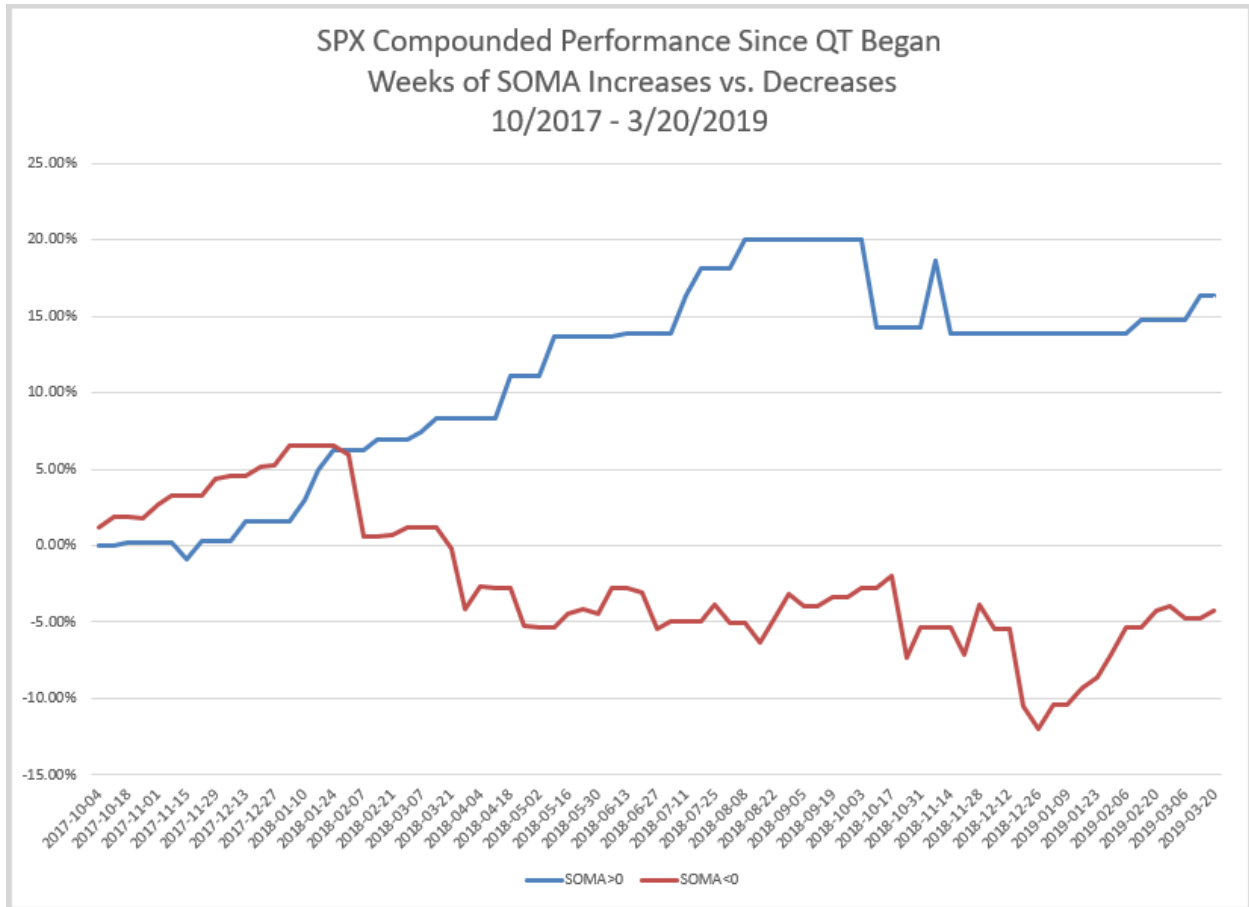
Data posted on 03/21/2019 4:30pm.

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



The Fed’s SOMA this past week (Wednesday to Wednesday) saw a decline of about \$8.3 billion. The “Actual vs Steady” chart shows that the SOMA decline was about average 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 rose 0.5% for the reporting week ending 3/20. That is a solid gain for a week in which the SOMA 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 in 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 4.3%. 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 02/27/2019

DOMESTIC SECURITIES HOLDINGS AS OF
March 6, 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
3/31/19	912828W97	1.250	3,147,708.1	10.80%		
3/31/19	912828SN1	1.500	18,223,451.7	61.38%		
3/31/19	912828C65	1.625	1,008,000.0	2.88%		
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%		

As far as treasuries are concerned, there is a fairly sizable expiration due at the end of March. 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 week, most weeks ending on or near the 27th since QT began have seen negative AMBS readings. So I expect to see the SOMA decline this current week, which ends on Wednesday the 27th. And the following week will include the large treasury expiration, so that should see some especially strong outflows.

This past week did not do much to change the intermediate-term outlook. 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 the recent study that looked at 1st pullback below the 10ma for SPX after an extended time above it. The overall trend looks good with SPX and NASDAQ both above the 200ma and recently making new 50-day 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 could help the market. But the other side of that is possible fears of a recession looming, and whether the Fed will be able to stave it off. Is any QT

now too much? Is Quantitative Easing coming back, or a move lower in rates? While we can ponder these things, they are too unknown to factor much into current trading decisions. 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

BA – 1/3 @ \$400.01 (bought @ limit)

BA – 1/3 @ \$375.41 (bought @ limit)

Broad Market Large Cap CBI – (BA-2)

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.

SPY – buy ¼ index position @ \$278.25 LIMIT ON OPEN. If not filled on open, cancel order and look to buy @ \$279.24 LIMIT ON CLOSE. If SPY gaps down \$1.00 at the open tomorrow, I'll buy it. Otherwise, I'll look for a lower close on Monday to get long.

Current Open Trade Ideas

Symbol	Entry Date	Entry Price	Current Price	% Gain/Loss	Stop	Notes
BA(1/3)	3/12/2019	\$384.70	\$362.17	-5.86%		Catapult
BA(1/3)	3/13/2019	\$375.41	\$362.17	-3.53%		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 © 2019 Quantifiable Edges, LLC.