

# QUANTIFIABLE EDGES SUBSCRIBER LETTER

ASSESSING MARKET ACTION WITH INDICATORS AND HISTORY

October 17, 2022

Volume 15 Issue 198

## Market Overview



## Signals Overview

| Aggregator | CBI Reading |
|------------|-------------|
| Long       | 2           |

## Tonight's Research Points

- Coming from a short-term high, the sizable drop on Friday could be a prelude to more short-term selling.
- Opex week in October is typically one of the strongest of the year.
- The SOMA shrunk again, and I expect to see a sizable reduction this week.

## *Short-term Outlook*

### *The Bottom Line*

The Aggregator is now long. Evidence is mixed but leaning bullish and SPX is short-term oversold. There appears to be a decent chance of a bounce, but I would be more excited about the long side if we were to see a bit more selling.

**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> |                                       |            |         |            |            |                        |
| October 17, 2022           | Dn2% from 5-high. No 5-low.           | 1-4 days   | Bearish | -3.25%     | 2.20%      | 3.80%                  |
| October 17, 2022           | Oct opex week bullish                 | 1-4 days   | Bullish | 2.20%      | -1.50%     | -2.90%                 |
| October 14, 2022           | SPY 20-low. Up 2% on high vol 5.      | 1-5 days   | Bullish | 4.50%      | -2.20%     | -3.80%                 |
| October 13, 2022           | 5 down to a 50-low < 200              | 1-5 days   | Bullish | 3.05%      | -2.30%     | -5.00%                 |
| October 12, 2022           | NDX down 5 days to 150-day low        | 1-5 days   | Bullish |            |            |                        |
| <b>Active - Long Term</b>  |                                       |            |         |            |            |                        |
| September 27, 2022         | CBI reaches 10+. SPX 50-low < 200     | 1-17 days  | Bullish | 7.30%      | -4.10%     | -8.20%                 |
| May 2, 2022                | Worst 6 Months with Jan-April selling | 1-6 months | Bearish |            |            |                        |
| March 14, 2022             | Fed Hawkish / QE done                 | int term   | Bearish |            |            |                        |

**The Evidence**

Thursday's big rally was either mostly or completely wiped out depending on which index you look at. On Friday SPX declined 2.4%, the NASDAQ dropped 3.1% and made a new closing low, and the Russell 2000 tumbled 2.7%. Breadth was negative with the NYSE Up Issues % coming in at 19% and the Up Volume % at 13%. NYSE total volume declined some from Thursday's level.

Friday's selloff was a big one. Strong selloffs can often be exhaustive. But a big factor that is often overlooked is the position of the market when the selloff occurs. In the 2/4/22 subscriber letter I compared 2% drops that leave the market at a 5-day low versus 2% drops that don't. I found a big difference in the results, and have updated them below.

| <p style="text-align: center;"><b>SPX closes down &gt; 2% and at a 5-day low.</b><br/>                     Buy on close. Sell X days later. \$100k/trade. 1990 - present.</p> |                 |                   |                     |                    |                   |                        |                       |                        |                       |                     |                   |                |
|---|-----------------|-------------------|---------------------|--------------------|-------------------|------------------------|-----------------------|------------------------|-----------------------|---------------------|-------------------|----------------|
| X Days  | All: Net Profit | All: Total Trades | All: Winning Trades | All: Losing Trades | All: % Profitable | All: Max Winning Trade | All: Max Losing Trade | All: Avg Winning Trade | All: Avg Losing Trade | All: Win/Loss Ratio | All: ProfitFactor | All: Avg Trade |
| 5   | 126,487.11      | 197               | 115                 | 82                 | 58.38             | 17,127.00              | -12,975.48            | 3,047.11               | -2,730.86             | 1.12                | 1.56              | 642.07         |
| 4   | 93,560.89       | 208               | 123                 | 85                 | 59.13             | 13,981.45              | -14,820.98            | 2,589.51               | -2,646.46             | 0.98                | 1.42              | 449.81         |
| 3   | 82,199.36       | 219               | 128                 | 91                 | 58.45             | 13,853.40              | -13,815.18            | 2,447.85               | -2,539.84             | 0.96                | 1.36              | 375.34         |
| 2   | 73,002.61       | 237               | 131                 | 106                | 55.27             | 10,183.87              | -8,077.85             | 1,998.53               | -1,781.17             | 1.12                | 1.39              | 308.03         |
| 1   | 81,506.34       | 262               | 160                 | 102                | 61.07             | 10,716.03              | -9,386.64             | 1,528.45               | -1,598.48             | 0.96                | 1.50              | 311.09         |

The strong selloff and new low suggest a bullish edge. But when SPX is NOT closing at a low level...

SPX closes down > 2% **but closes > 5-day low.**  
Buy 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: Max Winning Trade | All: Max Losing Trade | All: Avg Winning Trade | All: Avg Losing Trade | All: Win/Loss Ratio | All: ProfitFactor | All: Avg Trade |
|--------|-----------------|-------------------|---------------------|--------------------|-------------------|------------------------|-----------------------|------------------------|-----------------------|---------------------|-------------------|----------------|
| 5      | -29,007.94      | 38                | 20                  | 18                 | 52.63             | 6,507.68               | -18,188.04            | 2,648.17               | -4,553.96             | 0.58                | 0.65              | -763.37        |
| 4      | -21,842.49      | 41                | 18                  | 23                 | 43.90             | 7,513.37               | -13,776.90            | 3,663.80               | -3,816.99             | 0.96                | 0.75              | -532.74        |
| 3      | -6,869.07       | 45                | 23                  | 22                 | 51.11             | 8,531.60               | -10,506.45            | 2,905.39               | -3,349.68             | 0.87                | 0.91              | -152.65        |
| 2      | 5,865.90        | 46                | 23                  | 23                 | 50.00             | 7,608.64               | -9,153.54             | 2,947.84               | -2,692.80             | 1.09                | 1.09              | 127.52         |
| 1      | 7,588.97        | 46                | 26                  | 20                 | 56.52             | 4,617.32               | -6,060.08             | 1,629.33               | -1,738.69             | 0.94                | 1.22              | 164.98         |

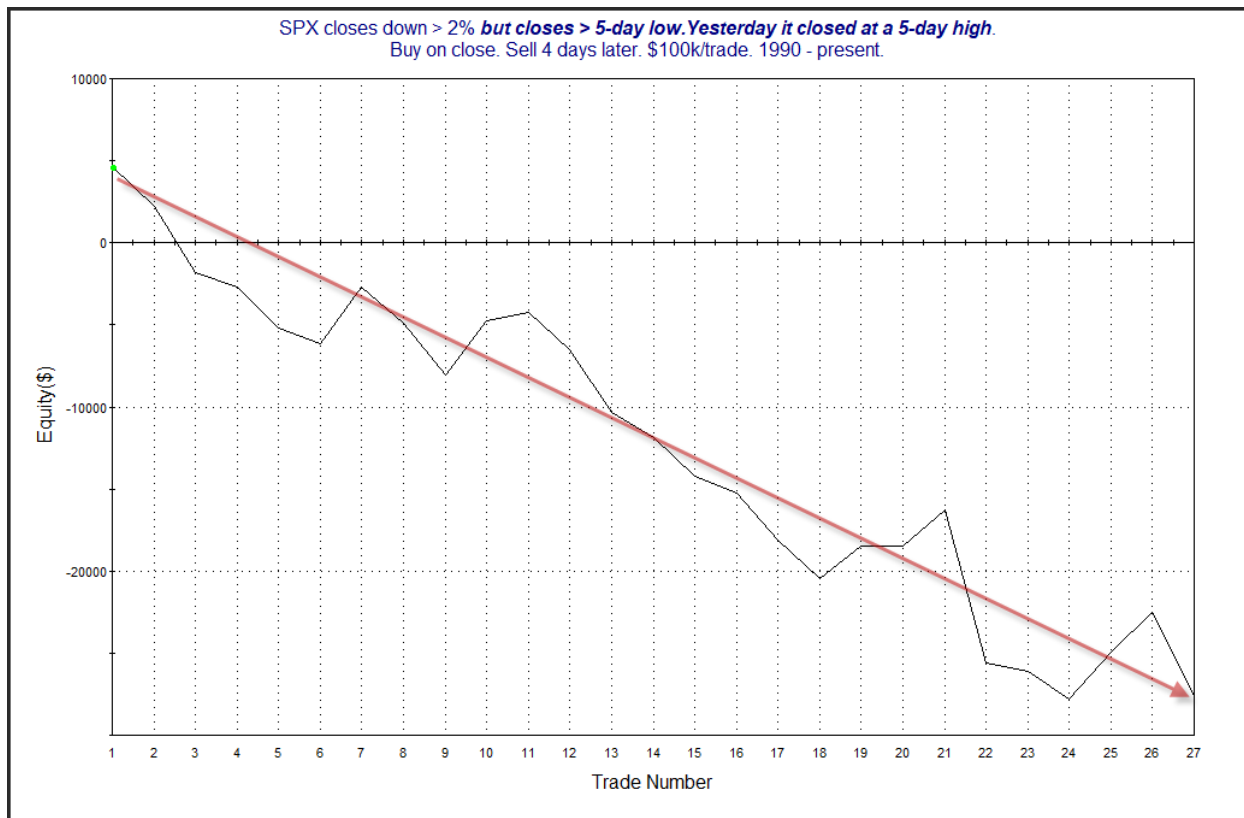
...there no longer appears to be an edge.

Interesting about Friday's drop is that it also came immediately after a short-term high. So just the day before, traders were optimistic. This too can be important. Thursday afternoon's buyers are stuck underwater. Here is the study with that added as a filter, also updated from the 2/4/22 letter.

SPX closes down > 2% **but closes > 5-day low. Yesterday it closed at a 5-day high.**  
Buy 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: Max Winning Trade | All: Max Losing Trade | All: Avg Winning Trade | All: Avg Losing Trade | All: Win/Loss Ratio | All: ProfitFactor | All: Avg Trade |
|--------|-----------------|-------------------|---------------------|--------------------|-------------------|------------------------|-----------------------|------------------------|-----------------------|---------------------|-------------------|----------------|
| 5      | -41,394.77      | 26                | 13                  | 13                 | 50.00             | 4,189.92               | -17,928.90            | 1,535.17               | -4,719.38             | 0.33                | 0.33              | -1,592.11      |
| 4      | -27,592.29      | 27                | 8                   | 19                 | 29.63             | 4,630.50               | -9,324.48             | 2,678.21               | -2,579.89             | 1.04                | 0.44              | -1,021.94      |
| 3      | -9,481.29       | 28                | 13                  | 15                 | 46.43             | 4,605.20               | -4,676.43             | 1,858.55               | -2,242.83             | 0.83                | 0.72              | -338.62        |
| 2      | -9,588.65       | 28                | 13                  | 15                 | 46.43             | 4,498.74               | -9,153.54             | 2,194.14               | -2,540.83             | 0.86                | 0.75              | -342.45        |
| 1      | -3,205.23       | 28                | 16                  | 12                 | 57.14             | 3,322.02               | -3,466.02             | 1,000.05               | -1,600.50             | 0.62                | 0.83              | -114.47        |

This looks somewhat bearish. Below is a 4-day curve.



The strong, steady decline serves as some confirmation of the downside edge.

It is also notable that this upcoming week is options expiration. October Opex has seen the 7<sup>th</sup> best average performance of any week of the year, looking back to 1985. It also has the 2<sup>nd</sup> highest average gains when looking at just winning weeks. This can be seen in the chart below, which I copied from the 10/3/22 letter a few weeks ago.

SPX performance in the week that followed the Month and Friday specified.  
\$100k/trade. 1985 - present. Top 10 and Bottom 10 results shown.

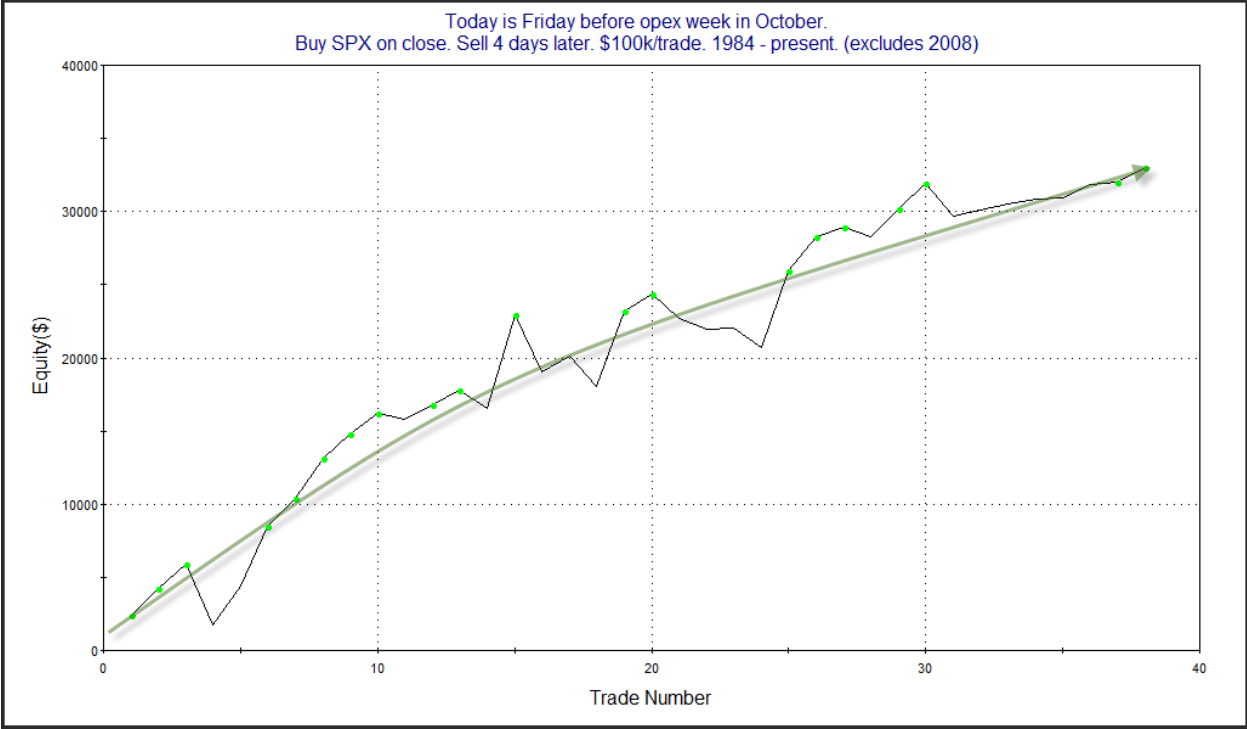
| Month of Year | Fri of Month | All: Net Profit | All: Total Trades | All: Winning Trades | All: Losing Trades | All: % Profitable | All: Max Winning Trade | All: Max Losing Trade | All: Avg Winning Trade | All: Avg Losing Trade | All: Win/Loss Ratio | All: ProfitFactor | All: Avg Trade |
|---------------|--------------|-----------------|-------------------|---------------------|--------------------|-------------------|------------------------|-----------------------|------------------------|-----------------------|---------------------|-------------------|----------------|
| 10            | 5            | 20,984.09       | 16                | 12                  | 4                  | 75.00             | 7,184.40               | -3,889.28             | 2,286.54               | -1,613.59             | 1.42                | 4.25              | 1,311.51       |
| 1             | 5            | 15,765.61       | 17                | 12                  | 5                  | 70.59             | 5,169.12               | -3,138.72             | 2,339.80               | -2,462.40             | 0.95                | 2.28              | 927.39         |
| 4             | 2            | 33,518.39       | 38                | 25                  | 13                 | 65.79             | 5,731.96               | -3,580.15             | 2,150.94               | -1,558.08             | 1.38                | 2.65              | 882.06         |
| 10            | 4            | 28,339.81       | 37                | 27                  | 10                 | 72.97             | 10,485.72              | -5,472.04             | 1,941.62               | -2,408.40             | 0.81                | 2.18              | 765.94         |
| 1             | 4            | 29,092.35       | 38                | 24                  | 14                 | 63.16             | 4,860.00               | -3,765.16             | 2,153.56               | -1,613.80             | 1.33                | 2.29              | 765.59         |
| 5             | 4            | 27,173.93       | 38                | 25                  | 13                 | 65.79             | 7,145.28               | -2,983.50             | 1,871.25               | -1,508.26             | 1.24                | 2.39              | 715.10         |
| 10            | 2            | 26,440.26       | 37                | 28                  | 9                  | 75.68             | 7,282.10               | -9,109.98             | 1,919.84               | -3,035.03             | 0.63                | 1.97              | 714.60         |
| 11            | 4            | 24,175.98       | 37                | 27                  | 10                 | 72.97             | 7,362.46               | -6,830.72             | 1,495.33               | -1,619.80             | 0.92                | 2.49              | 653.40         |
| 5             | 5            | 10,062.95       | 17                | 11                  | 6                  | 64.71             | 4,787.84               | -3,683.73             | 1,914.87               | -1,833.43             | 1.04                | 1.91              | 591.94         |
| 12            | 2            | 21,280.92       | 37                | 27                  | 10                 | 72.97             | 5,868.16               | -6,968.06             | 1,446.04               | -1,776.21             | 0.81                | 2.20              | 575.16         |
| 8             | 5            | -3,886.62       | 16                | 8                   | 8                  | 50.00             | 3,283.38               | -4,206.40             | 1,374.80               | -1,860.62             | 0.74                | 0.74              | -242.91        |
| 11            | 5            | -2,801.11       | 11                | 7                   | 4                  | 63.64             | 1,717.40               | -4,574.88             | 952.18                 | -2,366.60             | 0.40                | 0.70              | -254.65        |
| 6             | 3            | -9,818.82       | 38                | 15                  | 23                 | 39.47             | 6,396.30               | -3,626.75             | 1,510.79               | -1,412.20             | 1.07                | 0.70              | -258.39        |
| 6             | 1            | -11,263.62      | 38                | 17                  | 21                 | 44.74             | 4,090.16               | -4,984.32             | 1,236.96               | -1,537.71             | 0.80                | 0.65              | -296.41        |
| 10            | 3            | -12,291.17      | 37                | 18                  | 19                 | 48.65             | 4,339.20               | -12,167.91            | 1,764.05               | -2,318.11             | 0.76                | 0.72              | -332.19        |
| 10            | 1            | -14,308.94      | 37                | 21                  | 16                 | 56.76             | 5,944.32               | -18,000.90            | 1,849.22               | -3,321.41             | 0.56                | 0.73              | -386.73        |
| 7             | 5            | -9,682.89       | 17                | 8                   | 9                  | 47.06             | 2,404.80               | -7,153.30             | 1,213.42               | -2,154.47             | 0.56                | 0.50              | -569.58        |
| 2             | 3            | -23,208.21      | 38                | 18                  | 20                 | 47.37             | 2,106.80               | -11,122.37            | 848.98                 | -1,924.49             | 0.44                | 0.40              | -610.74        |
| 4             | 5            | -7,963.05       | 11                | 4                   | 7                  | 36.36             | 1,247.86               | -6,368.04             | 909.67                 | -1,657.39             | 0.55                | 0.31              | -723.91        |
| 9             | 3            | -31,342.49      | 38                | 10                  | 28                 | 26.32             | 7,739.42               | -6,525.56             | 1,625.43               | -1,699.88             | 0.96                | 0.34              | -824.80        |

Of course, there was the big 2008 outlier where SPX gained over 10% on just Monday. That skewed some of the intra-week numbers. So let's look at October opex week's daily performance with 2008 removed. The table below is updated from the 10/11/21 Subscriber Letter.

Today is Friday before opex week in October.  
Buy SPX on close. Sell X days later. \$100k/trade. 1984 - present. (excludes 2008)

| X Days | All: Net Profit | All: Total Trades | All: Winning Trades | All: Losing Trades | All: % Profitable | All: Max Winning Trade | All: Max Losing Trade | All: Avg Winning Trade | All: Avg Losing Trade | All: Win/Loss Ratio | All: ProfitFactor | All: Avg Trade |
|--------|-----------------|-------------------|---------------------|--------------------|-------------------|------------------------|-----------------------|------------------------|-----------------------|---------------------|-------------------|----------------|
| 5      | 24,154.65       | 37                | 28                  | 9                  | 75.68             | 7,282.10               | -9,109.98             | 1,838.21               | -3,035.03             | 0.61                | 1.88              | 652.83         |
| 4      | 27,809.94       | 37                | 27                  | 10                 | 72.97             | 6,383.20               | -4,169.79             | 1,720.72               | -1,864.95             | 0.92                | 2.49              | 751.62         |
| 3      | 11,968.09       | 37                | 24                  | 13                 | 64.86             | 2,976.32               | -3,734.78             | 1,205.59               | -1,305.08             | 0.92                | 1.71              | 323.46         |
| 2      | 16,238.69       | 37                | 24                  | 13                 | 64.86             | 5,468.05               | -1,737.36             | 1,081.66               | -747.79               | 1.45                | 2.67              | 438.88         |
| 1      | 9,511.76        | 37                | 25                  | 12                 | 67.57             | 2,753.79               | -1,921.32             | 669.23                 | -601.59               | 1.11                | 2.32              | 257.07         |

Results 1-4 days out look solid. I found the profit curve for the 4-day hold the most compelling. It can be found below.



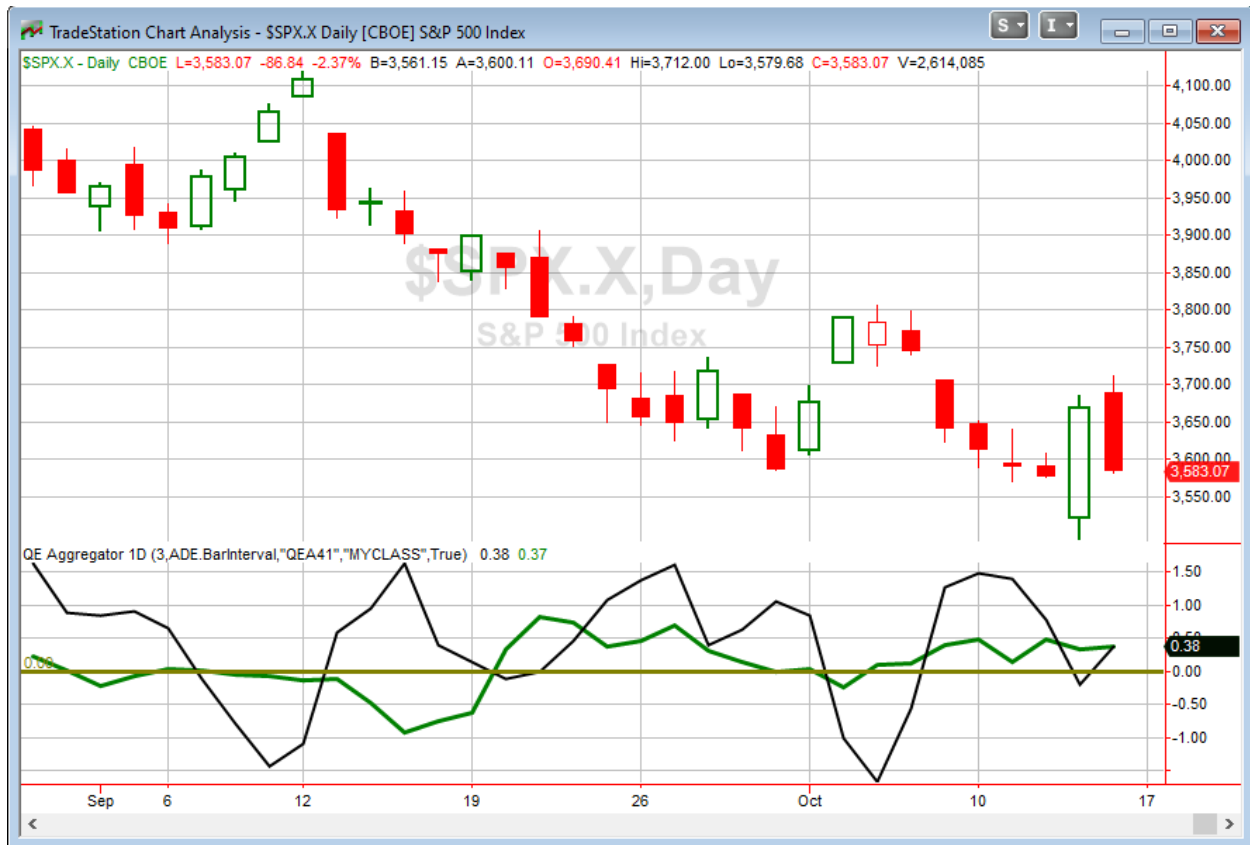
This appears strong enough to include on the Short-Term Active List. So I have.

Let's also take a quick look at the Quantifiable Edges Seasonality Calendar for SPX.

| <b>Quantifiable Edges Seasonality Calendar</b> |              |                      |                  |
|--|--------------|----------------------|------------------|
| <b>\$SPX S&amp;P 500 Index</b>                 |              |                      |                  |
| <b>Date</b>                                    | <b>Win%</b>  | <b>Profit Factor</b> | <b>Avg % Chg</b> |
| 10/3/2022                                      | 54.18        | 1.045                | -0.033           |
| 10/4/2022                                      | 49.39        | 1.125                | 0.070            |
| 10/5/2022                                      | 57.47        | 1.284                | 0.095            |
| 10/6/2022                                      | 55.17        | 0.961                | -0.027           |
| 10/7/2022                                      | 56.26        | 1.218                | 0.087            |
| 10/10/2022                                     | 51.22        | 0.717                | -0.196           |
| 10/11/2022                                     | 47.85        | 1.126                | 0.069            |
| 10/12/2022                                     | 52.57        | 1.029                | 0.025            |
| 10/13/2022                                     | 53.57        | 0.865                | -0.068           |
| 10/14/2022                                     | 55.41        | 1.354                | 0.117            |
| 10/17/2022                                     | 55.87        | 1.032                | -0.102           |
| 10/18/2022                                     | 52.51        | 1.728                | 0.203            |
| 10/19/2022                                     | 55.02        | 1.295                | 0.098            |
| 10/20/2022                                     | 53.23        | 1.098                | 0.002            |
| 10/21/2022                                     | 52.08        | 1.204                | 0.070            |
| 10/24/2022                                     | 51.66        | 0.896                | -0.135           |
| 10/25/2022                                     | 50.86        | 1.206                | 0.093            |
| 10/26/2022                                     | 53.98        | 1.266                | 0.096            |
| 10/27/2022                                     | 56.09        | 1.239                | 0.048            |
| 10/28/2022                                     | 54.70        | 1.113                | 0.049            |
| 10/31/2022                                     | 50.95        | 1.069                | -0.101           |
| <b>Baseline</b>                                | <b>54.40</b> | <b>1.128</b>         | <b>0.042</b>     |

This week appears to be perhaps the best one for the month of October, though most numbers remain moderate compared to the baseline stats. In any case, it is another bit of evidence that short-term seasonality may be supportive.

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



With the new mix of evidence considered, the green Aggregator line remained above zero. Positive readings mean expectations are for upside over the next few days. Meanwhile the black Differential Line rose back above zero. The positive Differential Line reading means that 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 formation turned long at the close.

Based on the current list of active studies, expectations are set to remain positive on Monday. This could change if additional bearish evidence emerges. Meanwhile, the Differential Pivot will be 3614.44 on Monday. That is 0.9% above Friday's close. Therefore, SPX would need to close up at least 0.9% on Monday in order to flip from oversold to overbought vs recent expectations.

So the Aggregator is long. Evidence is mixed but leaning bullish. And there is decent upside potential with the Differential Pivot nearly 1% above. Still, the bearish study from today does serve as a warning. And trying to go long right here seems an aggressive play. More selling on Monday would get me more enthused about a potential long trade. While some recent Tuesdays have disappointed with regards to "Turnaround Tuesday" edges, selling on Monday would surely trigger some Turnaround Tuesday evidence again. With this in mind, and with the Aggregator long, I will look to buy near the close on Monday if SPY closes at a new low.

**Intermediate-term Outlook (2 weeks – 2 months) – *updated 10/17 – neutral***

| Combo #1 | Combo #2 | Combo #3 |
|----------|----------|----------|
| Flat     | Flat     | Flat     |

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 “flat”.*

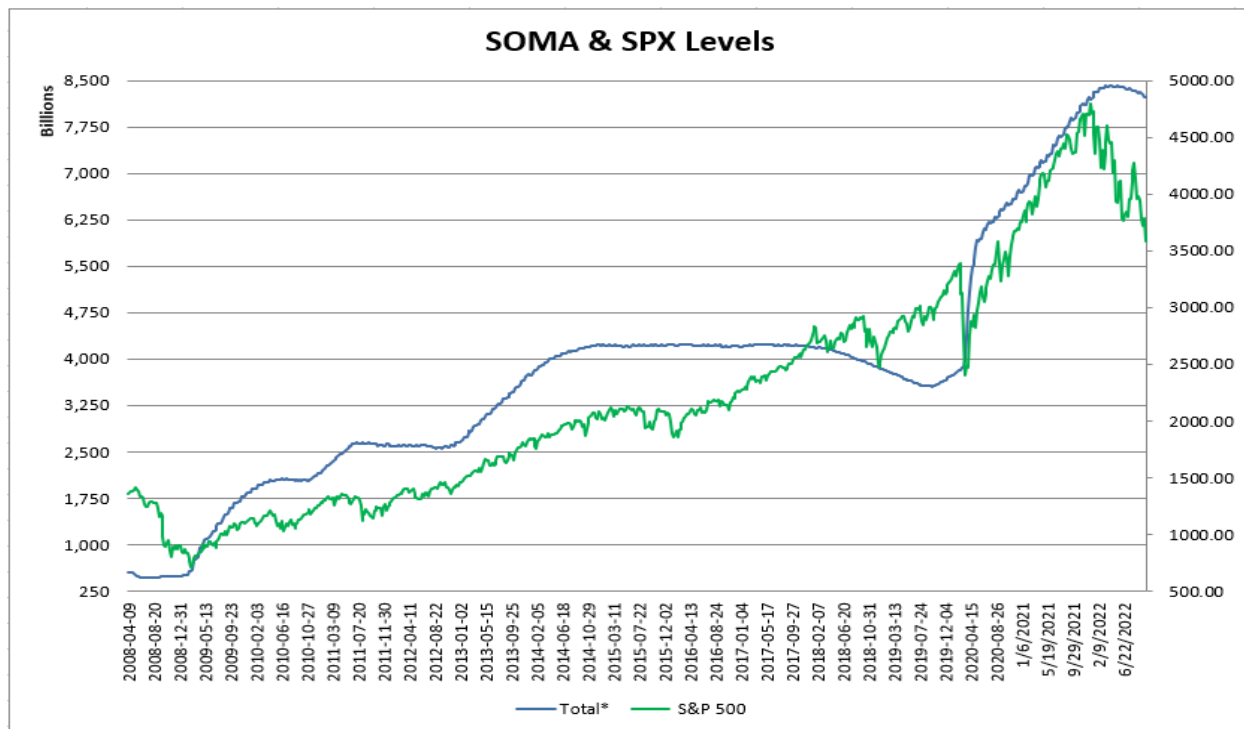
This was yet another down week for the market that also saw new bear market lows. The SPX closed the week down 1.55%, the NASDAQ tumbled 3.1%, and the Russell 2000 dropped 1.2%. Bonds continued their streak of losing weeks and also closed Friday at new bear market lows. The US Aggregate Bond ETF (AGG) lost 1.2%, while TLT, the 20-year Treasury Bond ETF dropped 2.4%. It has now closed down 11 of the last 12 weeks. There were no new studies with intermediate-term implications that triggered the last few days.

The Fed posted the latest update to the SOMA holdings after the close on Thursday. It can be found below.

| Domestic Security Holdings as of   |   |
|--|---|
| ◀ Previous   | October 12, 2022 📅<br><small>Posted October 13, 2022 at 4:30 PM</small> |
| <span>SUMMARY</span>   T-BILLS   T-NOTES AND T-BONDS   FRNS   TIPS   AGENCY DEBTS   MBS   CMBS |   |
| SECURITY TYPE  | TOTAL (\$Thousands)   |
| US Treasury Bills (T-Bills)  | 304,652,388.1   |
| US Treasury Notes and Bonds (Notes/Bonds)  | 4,819,507,373.0   |
| US Treasury Floating Rate Notes (FRNs)   | 29,924,645.1  |
| US Treasury Inflation-Protected Securities (TIPS)*   | 375,760,681.6   |
| Federal Agency Securities**  | 2,347,000.0   |
| Agency Mortgage-Backed Securities***   | 2,689,556,643.8   |
| Agency Commercial Mortgage-Backed Securities***  | 8,601,439.9   |
| Total SOMA Holdings  | 8,230,350,171.5   |
| Change From Prior Week   | -4,046,660.4  |

This week the SOMA declined by \$4 billion. That is a fairly mild week of QT. With a batch of bonds maturing and rolling of the Fed’s books on the 15<sup>th</sup>, I expect numbers to be substantially

larger this upcoming week. The big weeks tend to happen around the 15<sup>th</sup> and 30<sup>th</sup> each month when many bonds mature. November appears likely to be the first month where the Fed's \$95 billion cap could be approached. Below is an updated SOMA/SPX chart looking back to 2008.



The Fed is now in the midst of what could end up as the largest ever reduction in the size of the SOMA. The pace of the decline has recently accelerated and is expected to remain high for a while. Overall, the Fed is no friend to the market, and they won't be for as long as they remain hawkish.

So the major indices are either at or not far from new lows. The bulls also don't have a whole lot of quantitative evidence suggesting a rally is about to begin. The recent CBI spike gave just temporary relief so far. Strong price action and breadth would be better indications. And those are not showing up yet. Seasonality should improve starting in November. I will write more about that in the coming weeks, but [here is a preview from an old blog post](#). As shown in the table in the short-term section, October volatility could continue to swing the market all over the place between now and the start of November. Bears can still point to Fed policy, overall poor seasonality, a clear downtrend, and a lagging NASDAQ to build their case. I am going to maintain my neutral stance. While the bears have a better case, the upcoming November seasonality may help the bulls, and with the market so far extended down, short-covering rallies can be vicious. I really have no desire to get very aggressive in either direction. I'll remain fairly cautious when considering both long and short positions.

## Catapult and Capitulative Breadth Statistics

[Catapult & CBI Presentation Link](#)

### **Open Catapult Triggers**

AMT – 1/3 @ \$183.79 (buy @ limit)

NEE – 1/3 @ \$72.75 (buy @ limit)

### **Broad Market Large Cap CBI – 2(AMT, NEE)**

### 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 @ \$356.55 LIMIT ON CLOSE.** Based on the short-term outlook above, I will look to take on a small SPY position on Monday afternoon if SPY closes below Wednesday's close.

### Current Open Trade Ideas

| Symbol     | Entry Date | Entry Price | Current Price | % Gain/Loss | Notes               |
|------------|------------|-------------|---------------|-------------|---------------------|
| CMCSA(1/3) | 10/3/2022  | \$29.84     | \$30.52       | 2.28%       | <i>sold on open</i> |
| SPY(1/4)   | 10/10/2022 | \$360.02    | \$368.55      | 2.37%       | <i>sold on open</i> |
| AMT(1/3)   | 10/13/2022 | \$179.87    | \$185.78      | 3.29%       | Catapult            |
| NEE(1/3)   | 10/13/2022 | \$71.59     | \$71.77       | 0.25%       | Catapult            |
| SO(1/3)    | 10/13/2022 | \$60.96     | \$63.51       | 4.18%       | <i>sell on open</i> |
|            |            |             |               |             |                     |

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