HAMILTON POINT
Investment Advisors, LLC

WHAT WE'RE WATCHING

MARCH 13, 2020

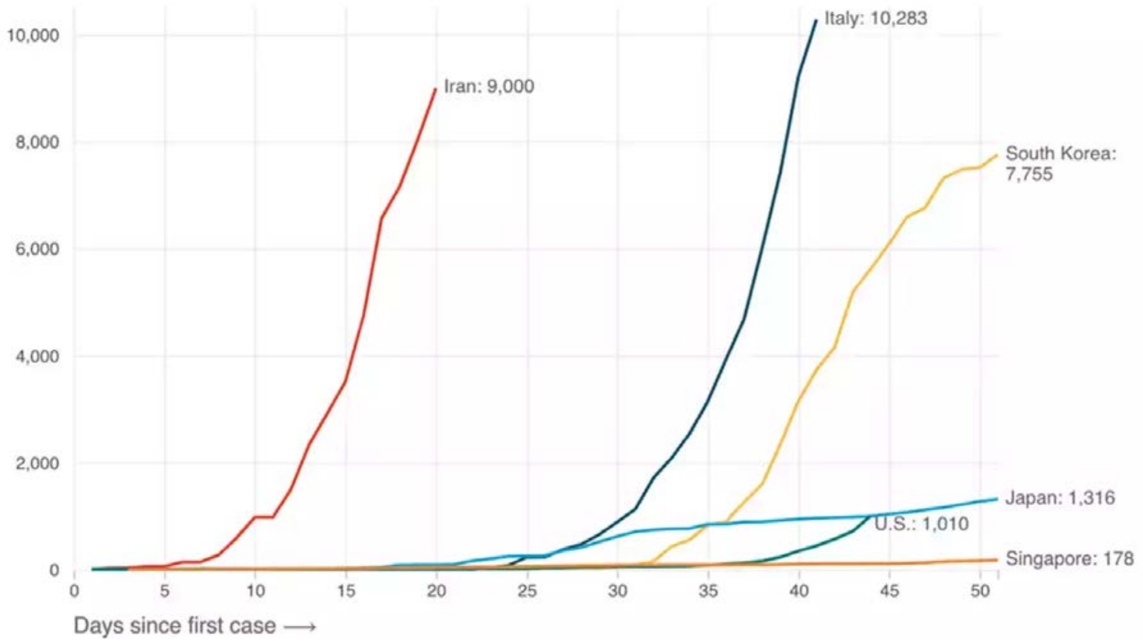
OUR UPDATED OBSERVATIONS

- We published a slide deck on March 1, 2020. Not even 2 weeks removed, much of that data and our observations need to be refreshed.
- At the beginning of March, our core observation was that the market volatility had been largely contained to a few asset classes. At that time, we did not see indications of widespread panic.
- Today our observations are quite different. We see multiple signs of full-fledge risk aversion.
- We remind that it is not just the coronavirus that has been driving sentiment, but also a breakdown in OPEC-controlled oil prices that has disrupted energy markets beyond the global growth issues that were already problematic.
- In this presentation we present you with a set of charts that we've been watching. We've made an effort to be heavy on the facts and light on the opinions (though we couldn't resist making a few at the end).

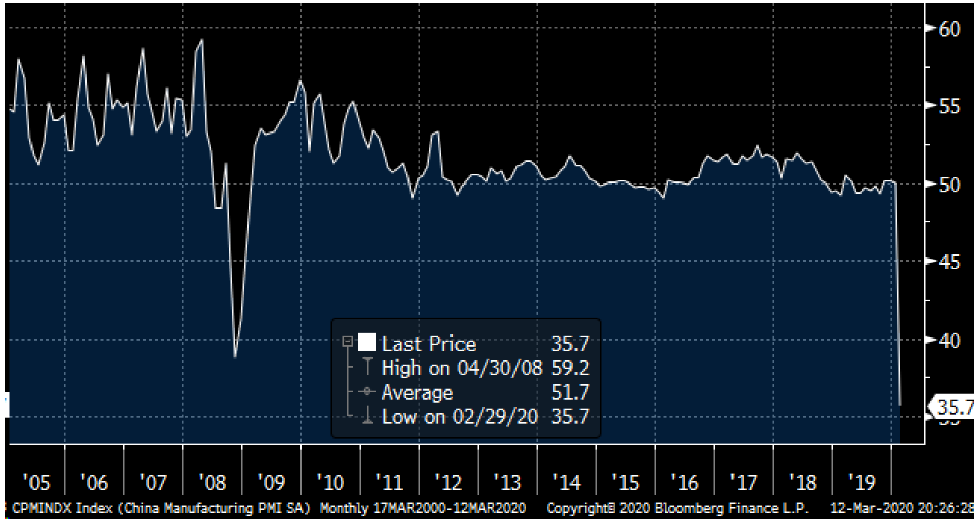
Note: in the interest of efficiently analyzing and commenting on a series of charts for a broad audience, there are some technical terms and acronyms that some may not be familiar with; thus where we haven't defined in text, you can find a summary of such terminology on p. 22.

AN UNCERTAIN PATH

- One major cause of the recent sell-off is the uncertain path of the Coronavirus.
- As shown in the chart on the top, the exponential increase in cases in many countries has investors worried that this virus could cripple the U.S. and/or other large economies.
- An example of such "crippling" is shown in China's PMI reading in February, which cratered below levels observed during the Financial Crisis.

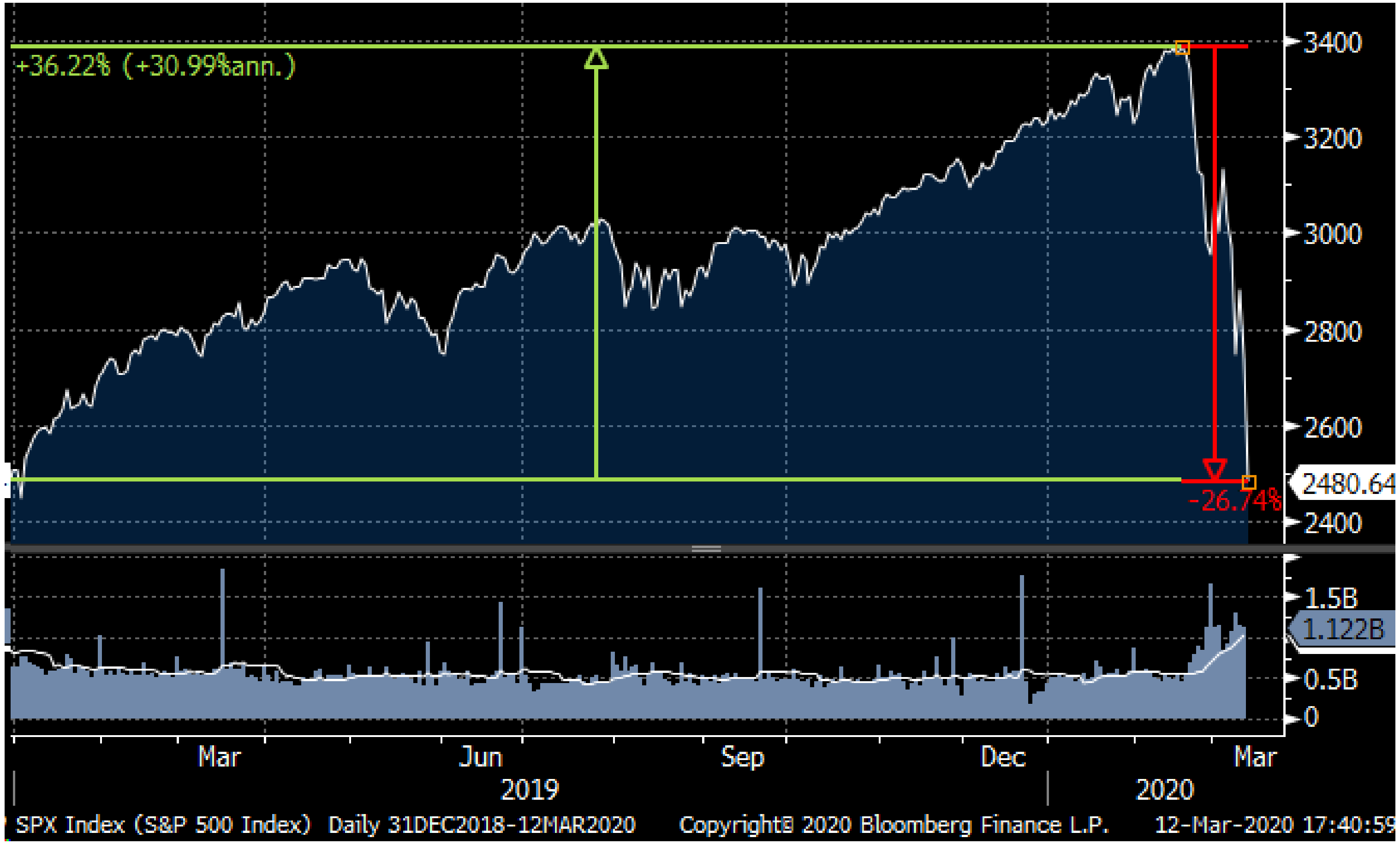


Source: NPR.org



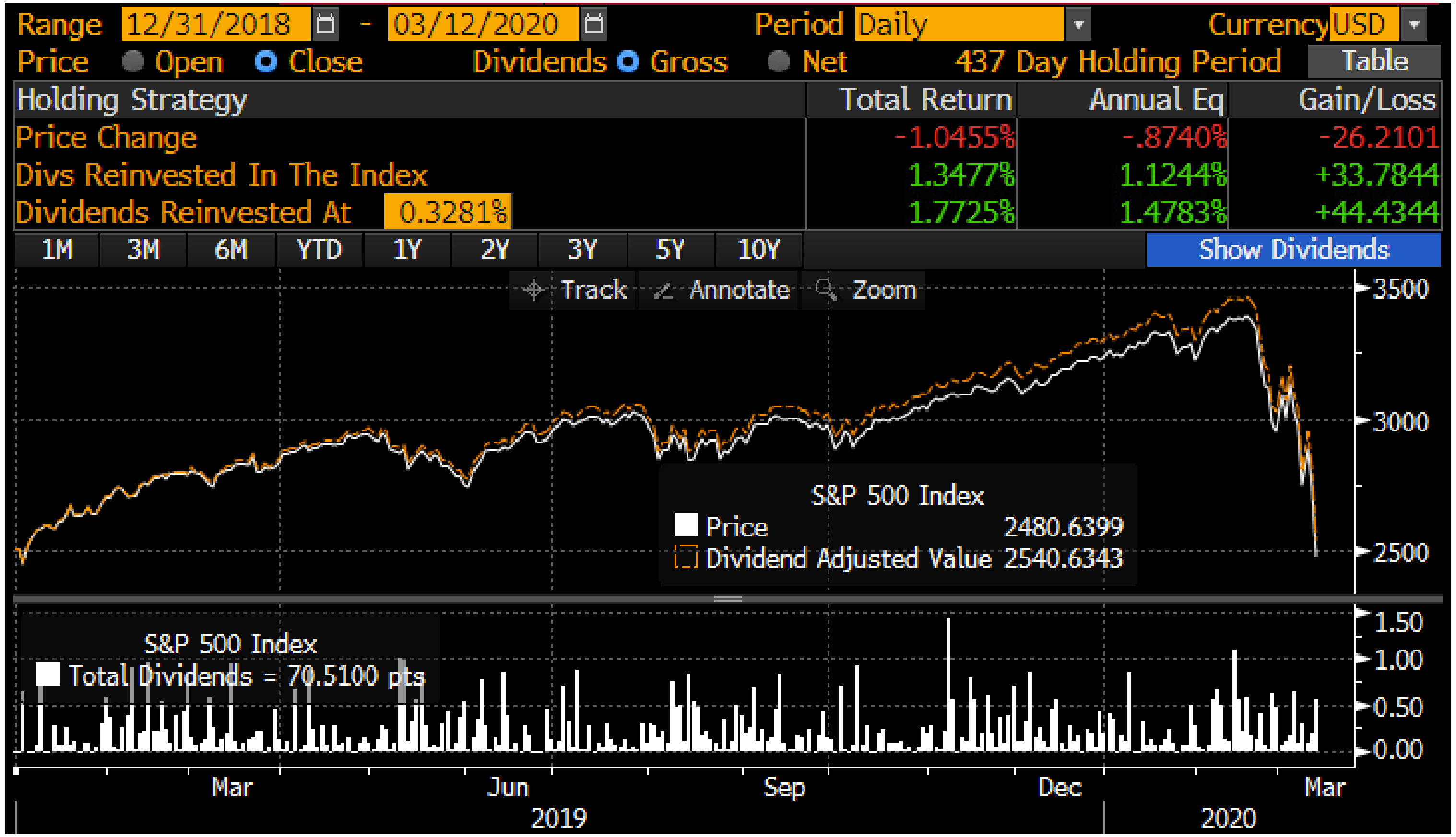
THE DAMAGE DONE

- After a 36% rise from the beginning of 2019, markets rolled over quickly in February of this year.
- The S&P 500 is now down 27% from its peak less than a month ago.
- In contrast to other sell-offs over the past decade, this sell-off occurred with high volumes. High volumes are typically associated with true ”de-risking events” and market panics.



PERSPECTIVE REMAINS HELPFUL

- In our last write-up, we stated that stocks had basically given up the gains earned in Q4.
- Now, stocks have roughly given up the gains earned in 2019. If you reinvested dividends along the way, you're still up 1.3% (and down 1% if you didn't).
- Amidst the panic, we find it useful to "pull back the chart." The 3-yr return of the S&P 500 is still ~33% (or ~9.9% on an annualized basis…not too shabby).



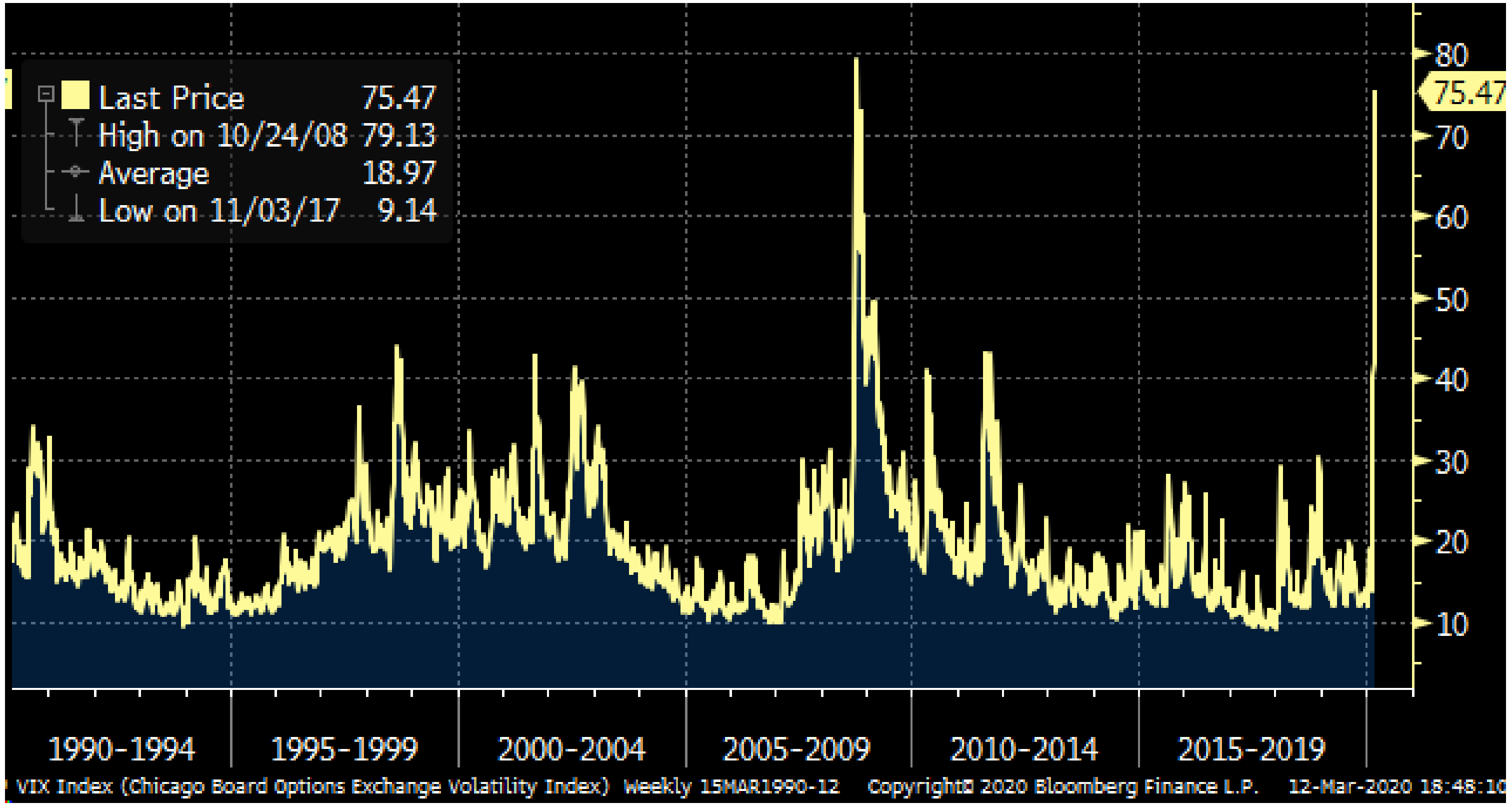
Source: Bloomberg

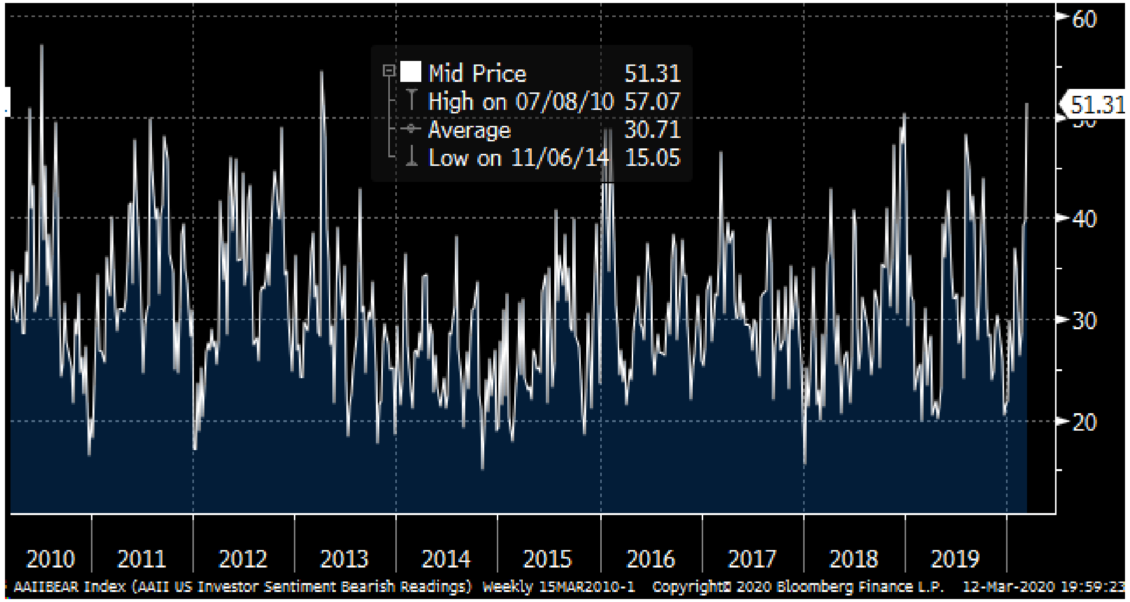
BREAKNECK SPEED

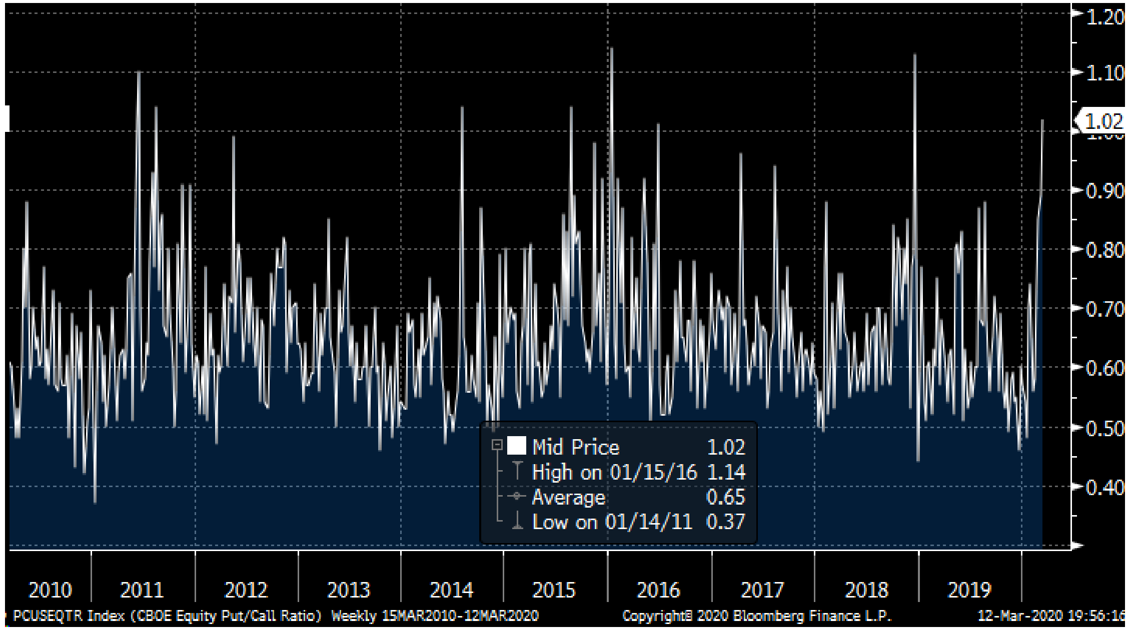
- Courtesy of Bloomberg, we've listed the previous bear markets for the S&P 500.
- From the market peak on Feb 19, 2020 – the S&P 500 entered a bear market in just 20 trading days! That's the fastest move in history – taking less than half the time stocks sold-off into a bear market in 1929.
- Algorithmic trading, the rise of indexation, a frothy market, and the degree of uncertainty in dealing with a pandemic all likely contributed to the speed of this sell-off.

THE SURGE OF EQUITY VOLATILITY

- Going back to the inception of the VIX (the gauge of volatility on the S&P 500) in 1990, today’s levels are only comparable to the Financial Crisis of 2008-2009.
- We’d argue this time period isn’t comparable to the Financial Crisis in terms of risks to investors, but our arguments don’t affect the VIX.
- The fact is that the market doesn’t like uncertainty, and the market has limited experience dealing with pandemics.

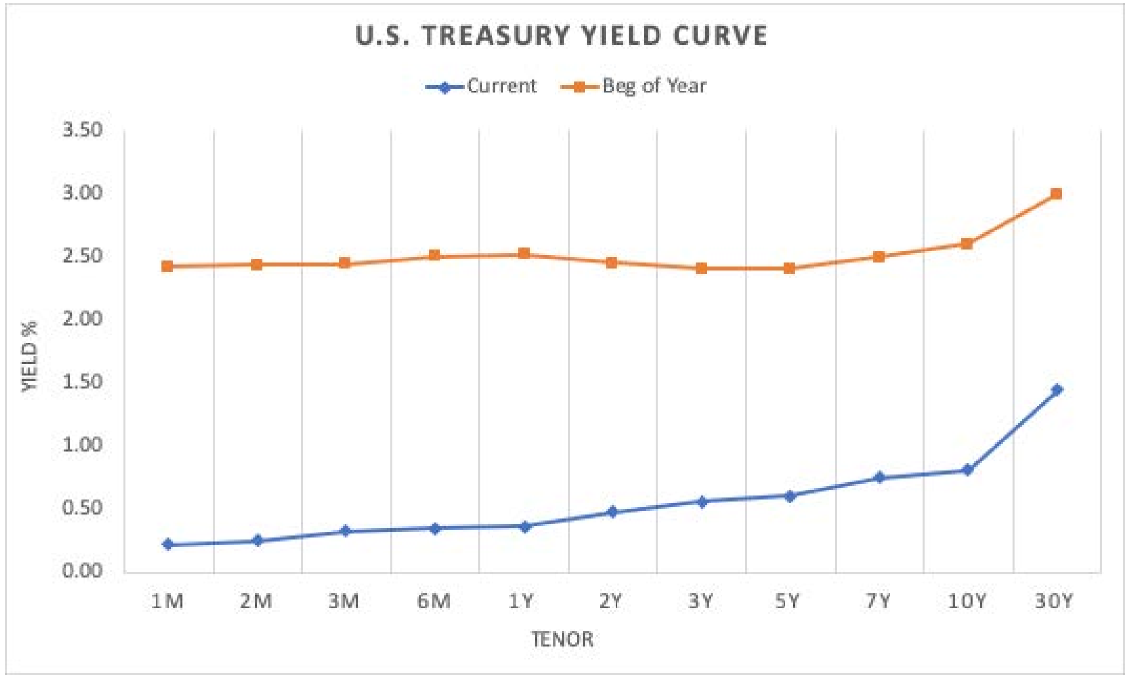




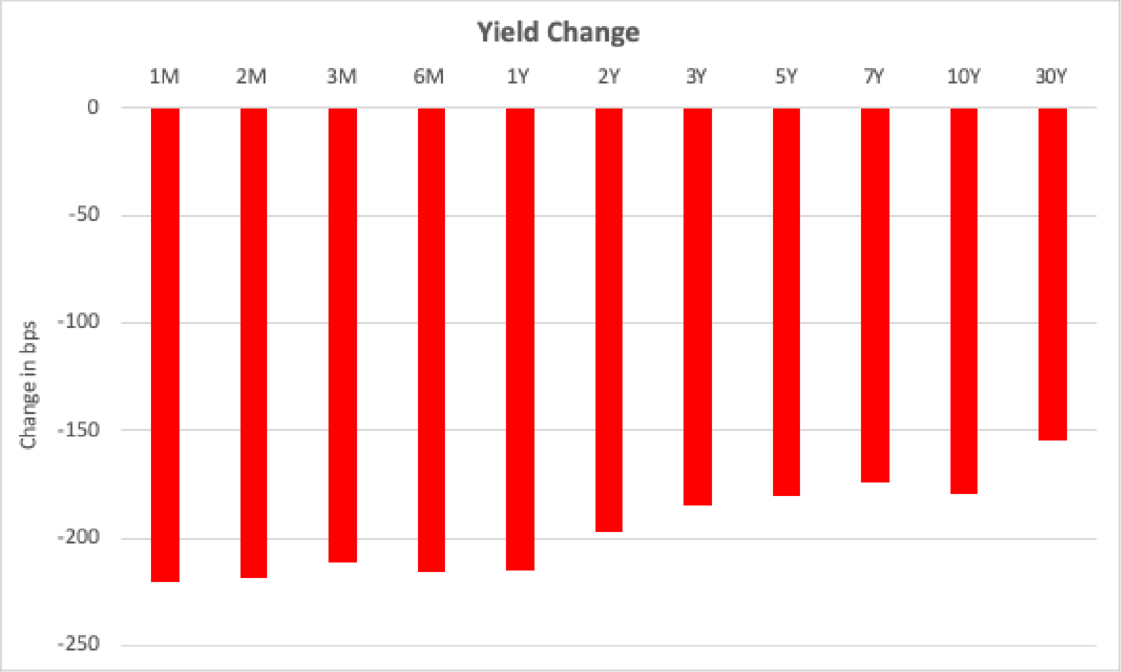


CONTRARIAN INDICATORS

- We often try to think the opposite of Joe & Jane Public when it comes to our investments. Contrarian indicators can be helpful in that regard – here are two that we track.
- On the left is the American Association of Individual Investor (AAII) Bearish Sentiment Survey. You may note that bearish sentiment is quite high now, just as it was at the end of 2018…you may also note that it was quite low at the beginning of this year.
- On the right is the Chicago Board Options Exchange's (CBOE) ratio of put to call contracts on U.S. equity options. Typically, investors are buying more calls (a bet on rising prices) than puts (a bet on falling prices). You'll note that investors are buying more puts than calls now…as they did at the end of 2015…and the end of 2018.



Source: Hamilton Point; Bloomberg



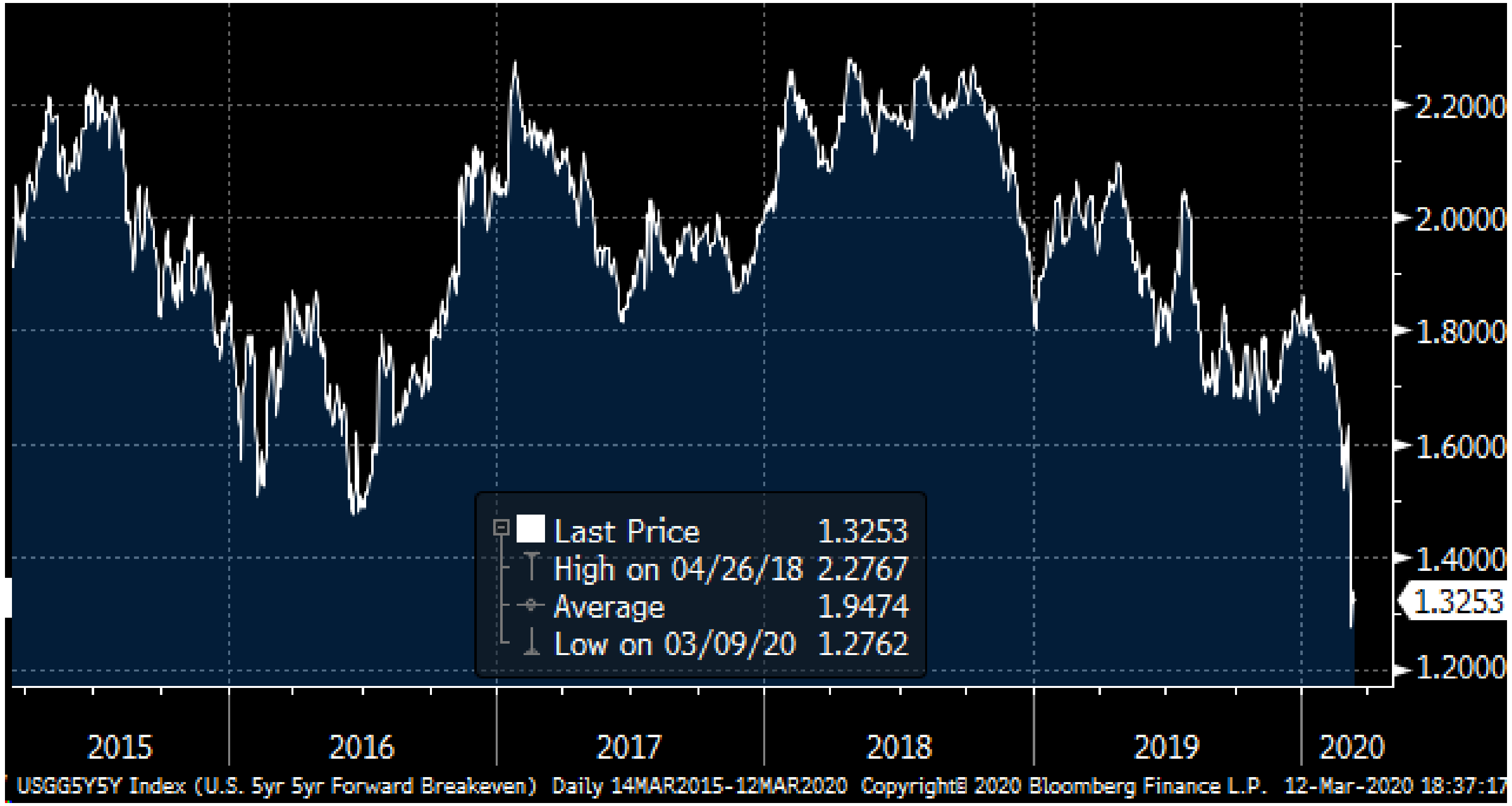
Source: Hamilton Point; Bloomberg

RATES CRASH TO ZERO

- Perhaps the only market that could top the breathtaking move in equities is the bond market.
- Yields have crashed to all-time lows across the curve. At one point this month, the entire U.S. Treasury yield curve traded under 1%!
- Even from only the beginning of this year, U.S. rates have dropped anywhere from 150 - 220bps.
- The current Fed Funds target is 1.0% – 1.25%. Look at the short end of the curve – the market expects (read demands) rate cuts soon.

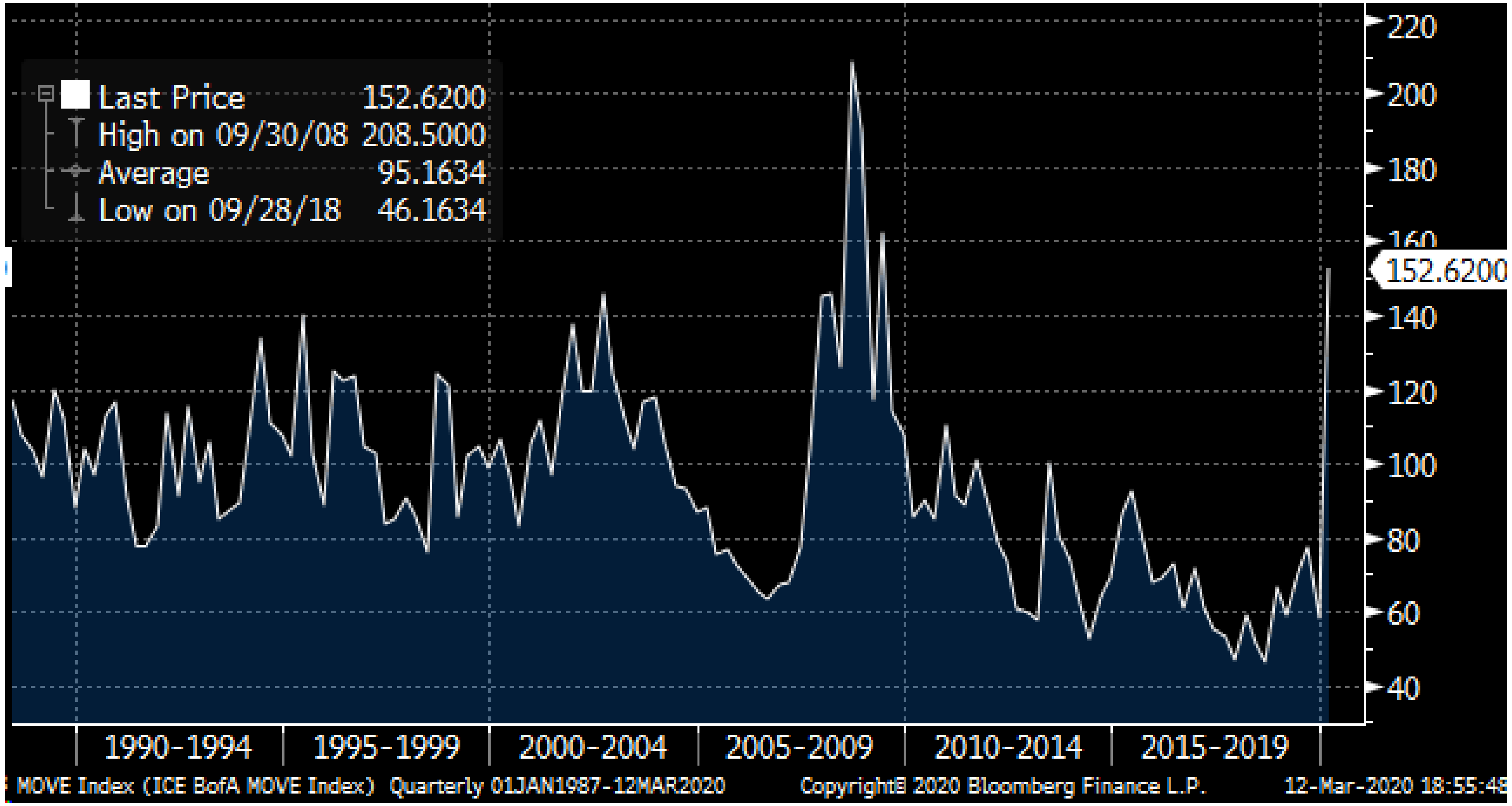
RATES ARE DROPPING FOR A REASON

- When pundits see a sharp drop in Treasury yields, they often attribute the move to a ”flight to quality” (i.e. investors buying safe assets when they are fearful) and/or “front-running the Fed” (i.e. investors expect the Fed to cut rates). Both are factors in this latest move.
- However, inflation expectations (reflected here through 5-year Forward Breakevens) are also crashing. Lower expectations of future inflation leads to lower rates.



THE SURGE OF RATES VOLATILITY

- Bank of America's MOVE Index measures volatility in Treasury bonds.
- Just like with the volatility that we're witnessing in equities, the volatility that we're witnessing in Treasury bonds is only comparable to what we witnessed during the Financial Crisis.

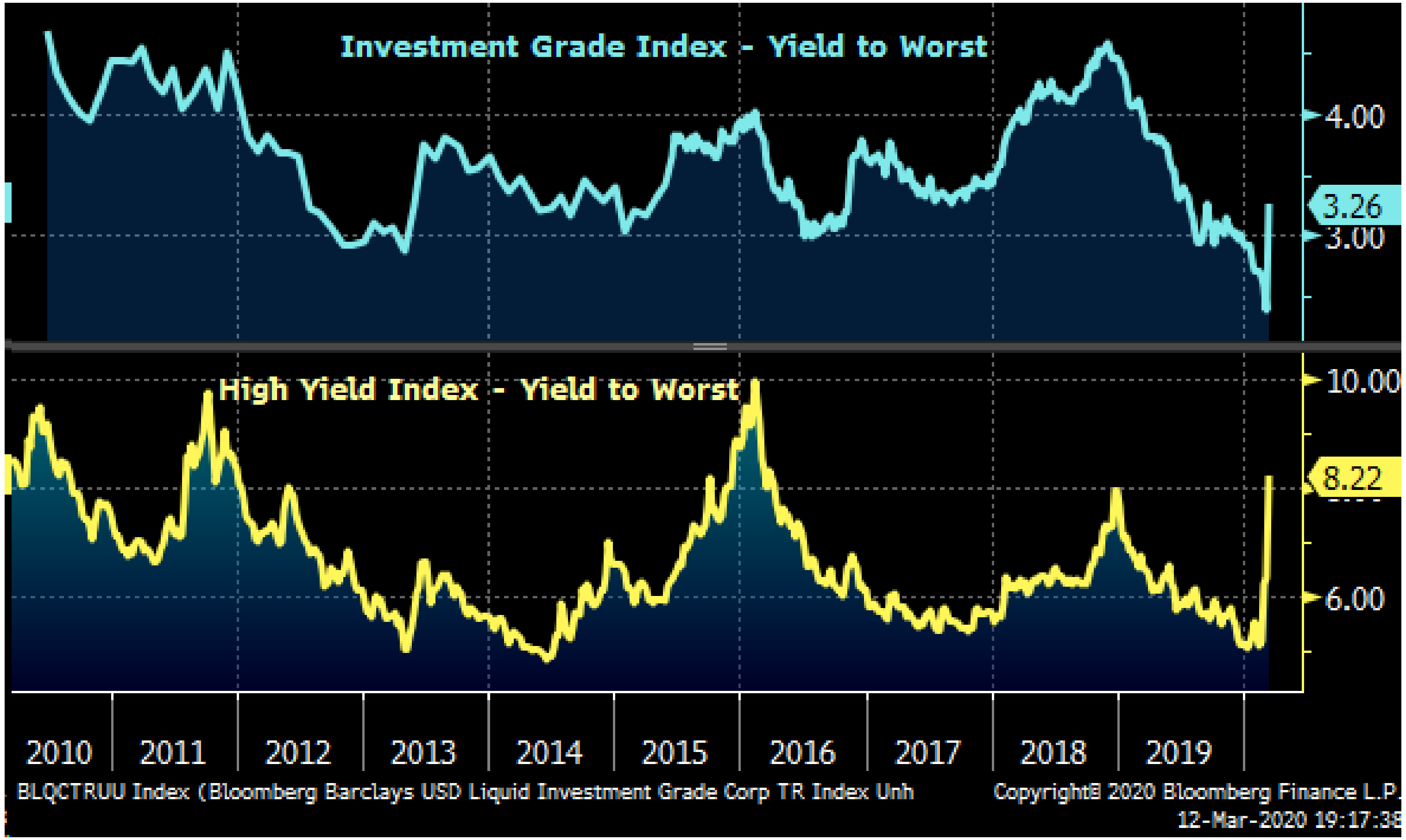


THE BREAKDOWN IN CREDIT

- In our last piece, we highlighted that credit spreads were relatively stable. At that time, the interpretation was that there was no "contagion" from the huge moves we were seeing in equities and rates.
- Now the story has changed. Credit spreads are quickly widening…a troublesome indicator for the markets. Investment grade bond spreads are displayed on top, high yield spreads on bottom.

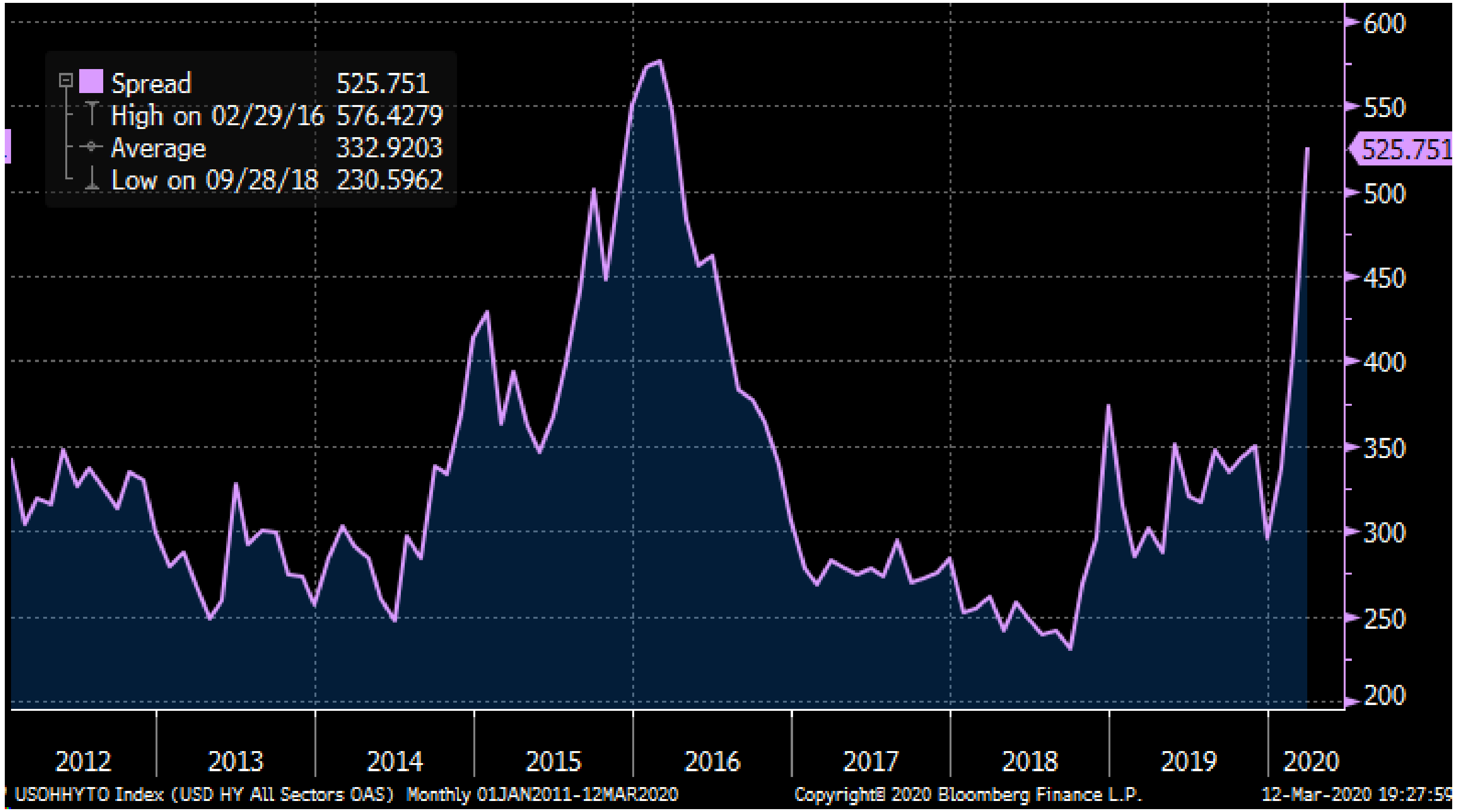
THE IMPLICATIONS OF WIDENING CREDIT DIFFER

- Even though credit spreads have risen dramatically for both Investment Grade ("IG") & High Yield ("HY") companies, the ultimate impact is vastly different.
- Due to the sharp drop in Treasury yields, borrowing costs for IG companies average ~3.25%, still below the 10yr average.
- Borrowing costs for high yield companies approach 8.25% now, well above the 10yr average.
- Many high yield, private equity, and private debt-backed companies are not equipped to handle borrowing costs at these levels. Many of these deals were predicated on companies having access to debt at rates ~6%….as crazy as that sounds.



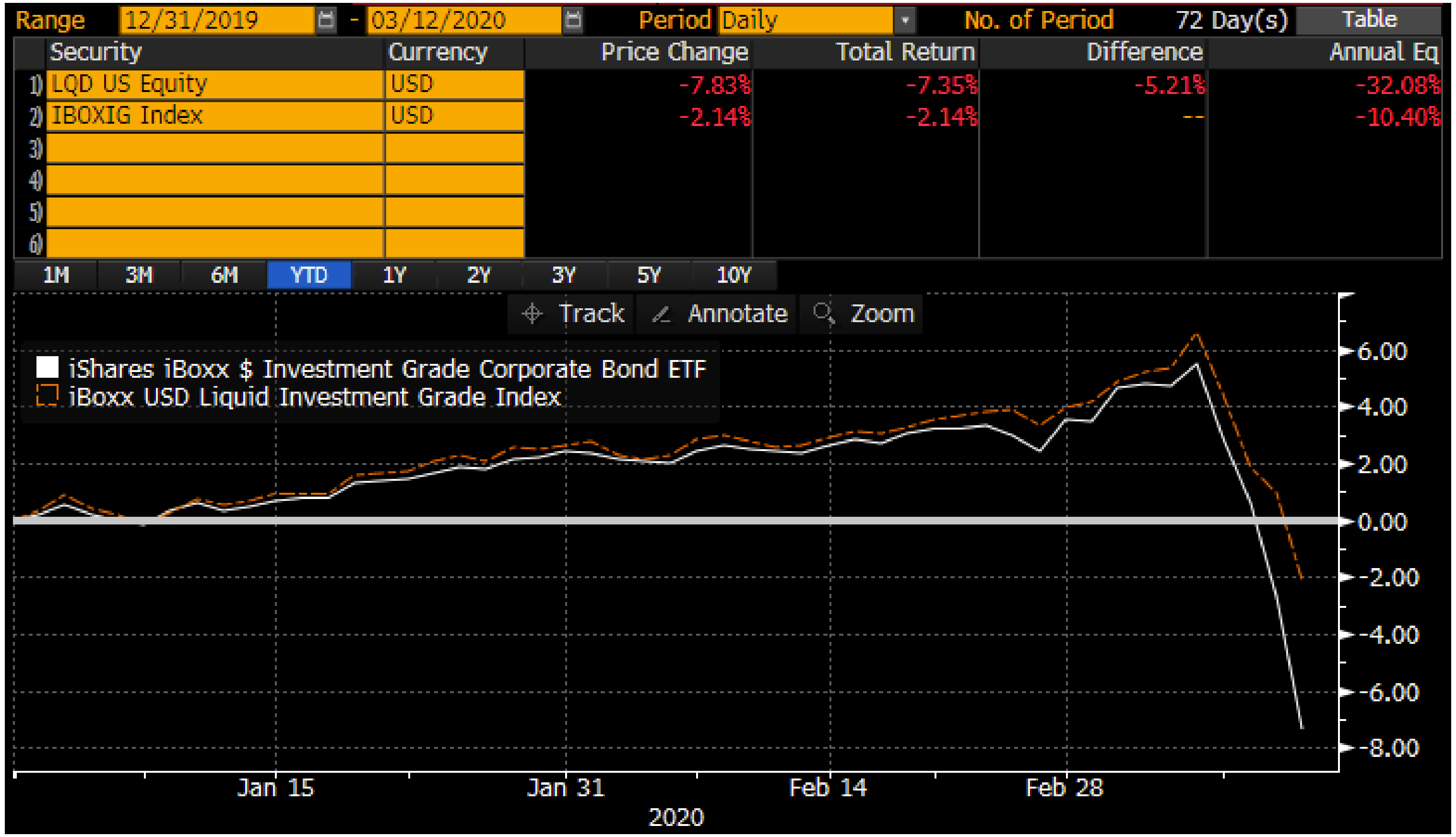
CREDIT QUALITY MATTERS IN TIMES LIKE THESE

- One metric that we like to monitor is the differential between high yield and investment grade credit spreads.
- When times are good, investors require little premium to lend to riskier companies, and the opposite is true when markets are stressed.
- Right now, this premium is soaring. Investors currently require 525bps more to lend to an average high yield company versus an average investment grade company.
- If this persists, the lower segment of the credit market will struggle with refinancings.



A RISK OF ETF INVESTING

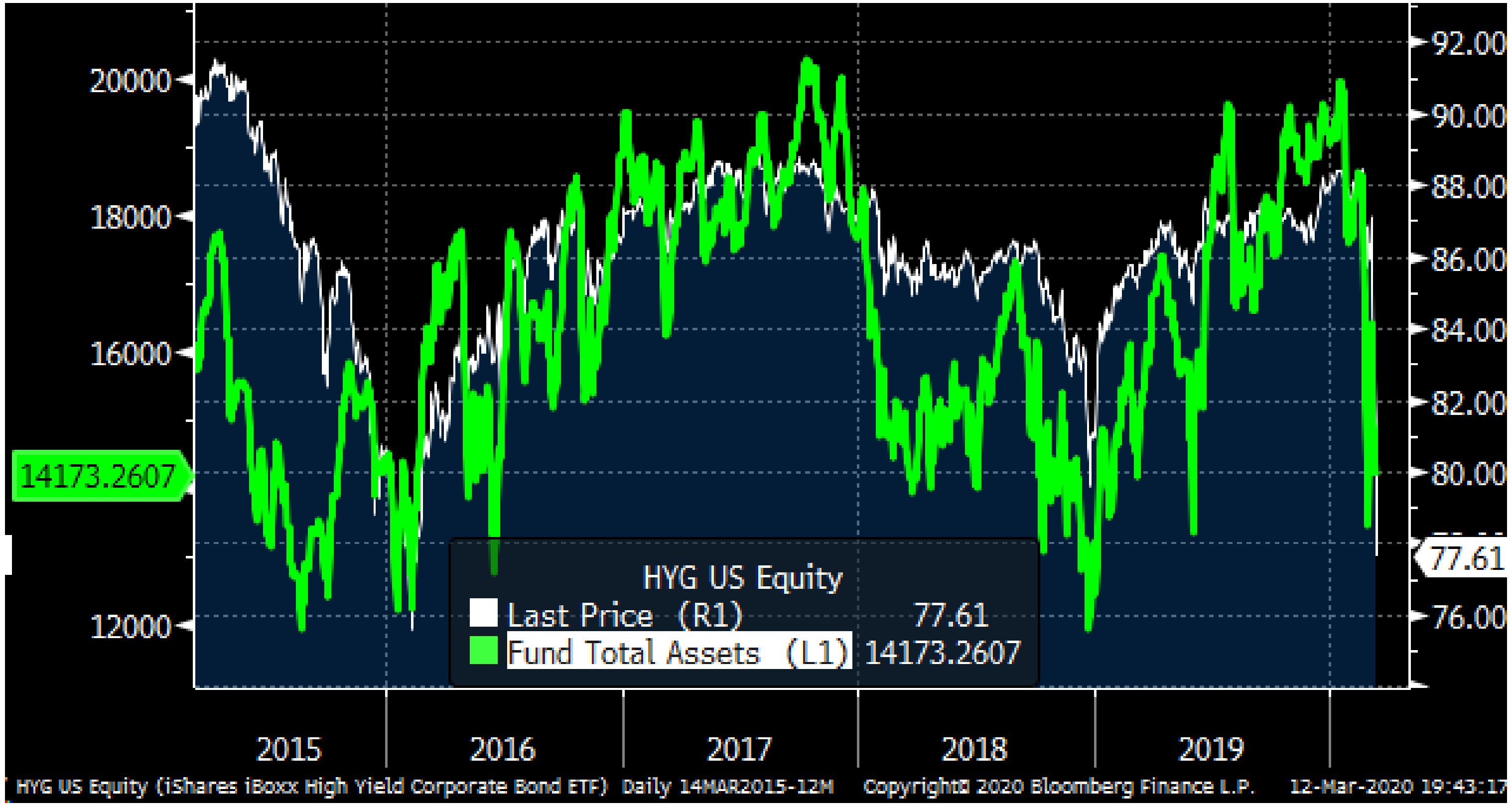
- LQD is an investment grade bond ETF and one of the largest, most widely used index ETFs in the world.
- As the market sell-off has deepened, investors have rushed to pull money from the ETF.
- The ETF now trades at a large discount to fair value. As a result, the ETF has underperformed the index it tracks by 5.2% YTD. That is a huge gap given that the annual yield from the ETF was approximately 2% at the beginning of the year.



Source: Bloomberg

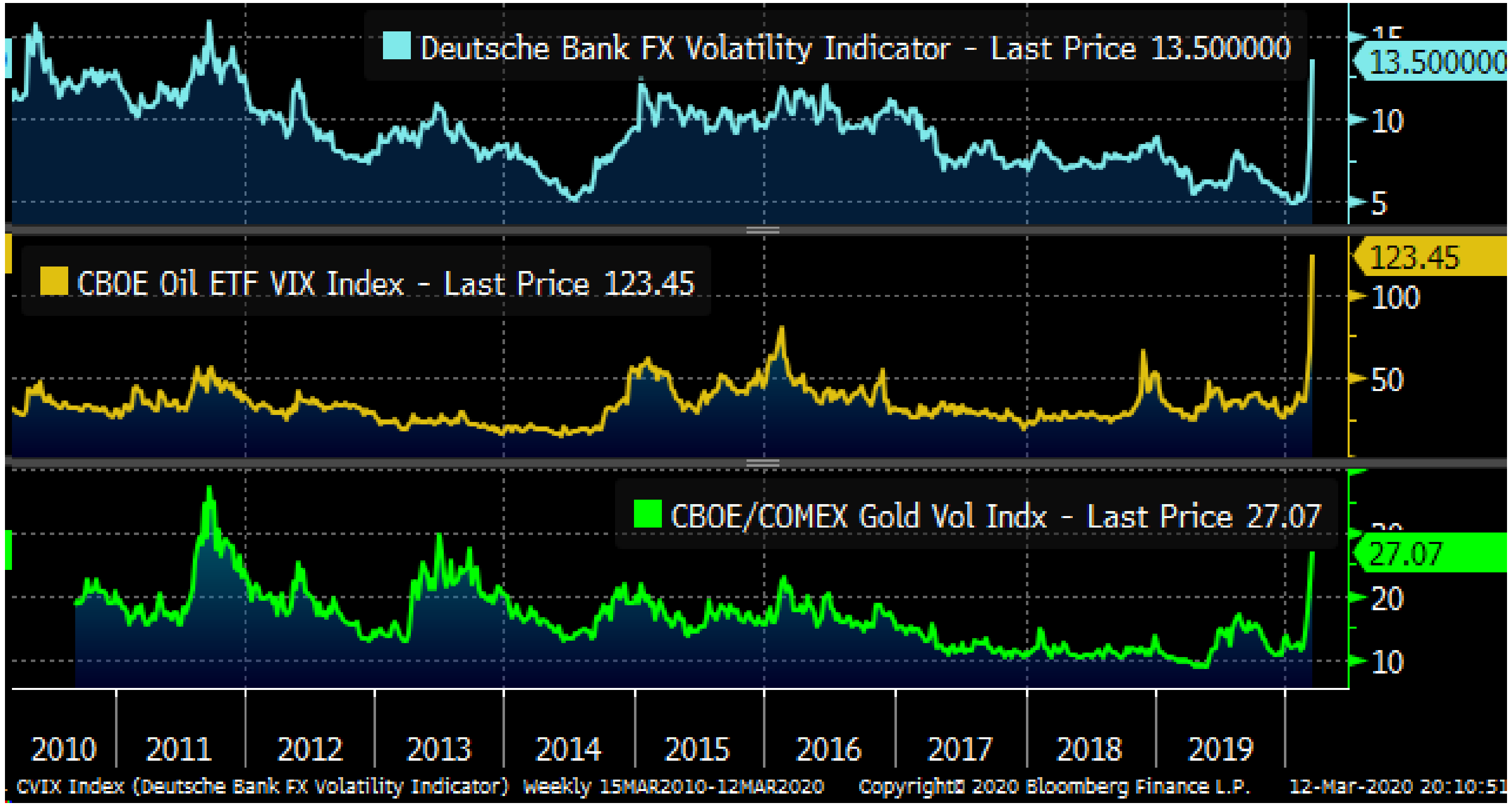
FUND FLOWS A FURTHER STRESS TO CREDIT

- HYG is the biggest high yield ETF in the world.
- The fund has lost ~$7 billion, or roughly 1/3 of its assets, since January.
- Outflows in ETFs lead to systematic selling by those funds. All of the bonds they hold are typically sold on a pro-rata basis as the funds attempt to mimic the indices they track.
- Systematic selling can lead to sharp gaps down in bond prices.



STRESS IN OTHER MARKETS

- We mentioned earlier that one sign of panic now, versus two weeks ago, is that extreme volatility is now widespread to multiple asset classes.
- The top graph is a chart of volatility across developed market currencies.
- The middle graph shows the unprecedented volatility in the oil market.
- The bottom graph shows the high volatility in gold – a widely regarded "safe-haven" asset.

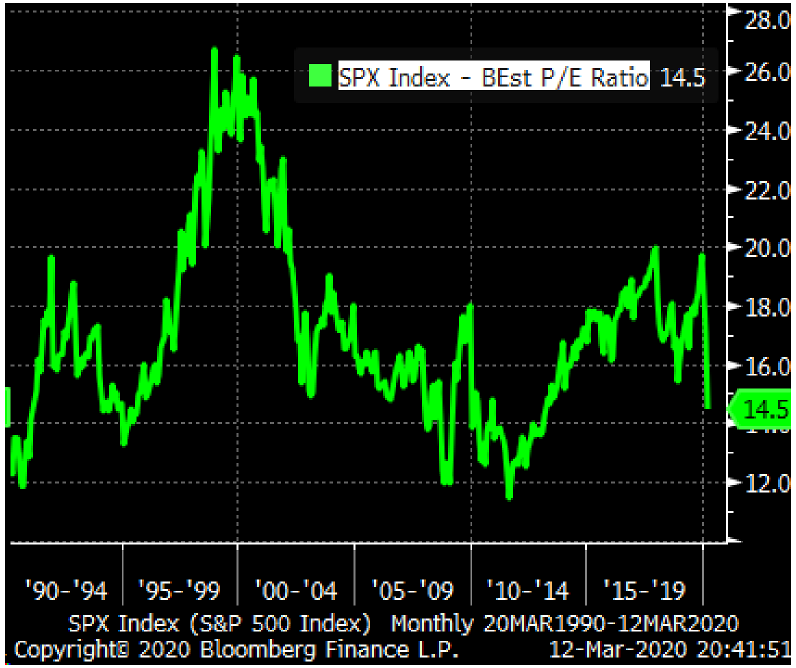


WHAT'S HAPPENED TO VALUATIONS?

- Earnings Per Share ("EPS") estimates for the S&P 500 for 2020 are $175, roughly unchanged from when the year began.
- Safe to say that $175 is not likely to happen. Analysts will drop estimates soon – as soon as companies start to tell them guidance – which will likely be broad guesstimates.
- Consequently, we suggest taking the emotion out of it. The table at the top shows the implied P/Es at various EPS levels for 2020 & 2021.
- We'd guess the market will increasingly place more emphasis on 2021 than 2020.
- At the bottom we've charted 1-yr forward P/Es on the S&P 500 over the past 30yrs. The average is 17.0x.

Current S&P 500 Price Level: 2480

2020 EPS	2020 IMPLIED P/E	2021 EPS	2021 IMPLIED P/E
125	19.8	155	16.0
135	18.4	165	15.0
145	17.1	175	14.2
155	16.0	185	13.4
165	15.0	195	12.7
175	14.2	205	12.1



REASONS TO BE BEARISH

- The U.S. still appears to have no cohesive policy response to detecting and containing the virus. It's likely that containment is now impossible in many communities.
- The typical responses to past crises have been executed through monetary policy. We believe monetary policy will have limited effectiveness in addressing this crisis.
- The dual supply & demand shock will have crushing consequences on many businesses around the globe, in our view.
- China, the world's second largest economy, came to a grinding halt last month. That alone would pose a challenge to global growth this year, and now we have the U.S. and Europe to add to the mix.
- The markets have entered a negative feedback loop where sharply falling prices lead to violating risk limits, which translates into forced selling of risk assets, which begets sharply falling prices, leading to greater risk reduction.
- The spiraling of Treasury yields to zero presents a large challenge to banks, savers, and many parts of the global economy.

REASONS TO BE BULLISH

- Yes, things are likely to get worse economically before they get better, but the market is forward-looking, and we believe a significant level of economic disruption is widely expected and already priced into the markets.
- Throughout history, reducing risk after a 27% drop in the U.S. equity markets has rarely produced a good investment return in the following 1, 3, 5, and 10 years.
- The U.S. economy is receiving stimulus from the Federal Reserve. We believe a fiscal policy response is highly likely in the coming months (if not weeks). This dual stimulus could have a strong impact on asset prices.
- The recent cascade of bad news (sports, school, and public event cancellations) likely swayed those who underestimated the virus's impact. When everyone acknowledges the virus's impact, the bottom in sentiment is likely near.
- A variety of risk-indicators are flashing at or near record levels. Historically, buying equity and other risk assets at these heightened levels of fear results in good entry points, even if disruption and volatility continue in the near-term.
- A variety of factors (vaccine, changes in public health habits, weather) could result in a less severe virus impact than is currently expected by the market.
- Financial institutions appear to be well prepared for this shock. As of now, the risk of a banking crisis appears low.
- In the words of Warren Buffett, "Buy fear, sell greed."

 See full disclosure on page 23.

OUR PRESENT ASSESSMENT

- Corporate profits should snap-back from this episode, be it in 2 quarters, or 2 years. Companies are valued based on estimated earnings for decades into the future. The trick is finding companies that are profitable and well-capitalized to realize those decades of profits. We believe our investment process leads us to those types of firms.
- The economic shock of Coronavirus may set off a wave of defaults in smaller, highly levered companies. Many of these companies can't withstand 2 quarters, not to mention 2 years, of a recession. We believe many companies involved in high yield, private equity, and private debt transactions are ill-prepared for what lies ahead.
- This crisis likely becomes very real to most citizens when elementary and secondary schools are suspended for the remainder of the school year; many have already closed for the next several weeks and this development could mark a bottom for sentiment.
- Treasury bonds will at best offer a savings account-like return for the foreseeable future. With yields close to zero, the investment case is highly limited.
- We expect high dispersion in returns across companies in the equity and credit markets. At a minimum, the short-term economic shock will be severe. We are quite comfortable with our strong bias towards quality across all of our investment strategies.
- Given the daily violent swings across the market (and we believe the near impossibility of timing "the bottom"), dollar-cost averaging into positions through a number of timed moves likely yields a better long-term result than drawing a line in the sand and making one consolidated purchase or sell.

TERMINOLOGY AND ACRONYM REFERENCE (IF NEEDED)

- **Basis Point(s) or bp(s) for short**: 1 bp = 0.01% so 65 bps is another way of saying 0.65%.
- **Credit Spread**: refers to the incremental yield, expressed in basis points, received for a bond or group of bonds compared to a Treasury Bond of similar duration. As an example, if a 5-year Treasury Bond had a yield of 1%, and a 5-year high yield bond had a yield of 5%, that high yield bond would trade with a credit spread of 400bps (5%-1%)*100 = 400.
- **ETF**: An Exchange Traded Fund is a group of securities that tracks an underlying index.
- **Forward Breakevens**: a measure of inflation expectations derived by comparing the yield of a Treasury Bond to an inflation-linked bond of the same maturity.
- **P/E**: Price/Earnings multiple is a valuation measure reflecting the price paid for a stock relative to the actual or projected earnings per share of that company; a "high multiple" generally implies a higher valuation for that stock.
- **PMI**: The Purchase Managers Index is a survey-based measure of the manufacturing and service sectors. It is considered a leading (meaning early) indicator of the direction of overall economic activity.
- **Treasury Yield Curve**: the yield on a U.S. Treasury Bond over different time periods, typically shown from 1-month Treasuries to 30-year Treasuries.

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