



THE May 2019 EQUITIES SELLOFF EXPLAINED



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*A TEXTBOOK CASE OF SELL IN MAY AND GO AWAY?
OR THE FIRST SIGN OF SOMETHING MORE SINISTER?
ANOTHER EXAMPLE OF THE EVER GROWING IMPORTANCE OF POLITICAL TWEETS*

1/ Introduction

Following what has been the best start of the year for many asset classes, especially for US equities as a whole which had their best January to April period since 1992, the main US equity index, the SP500, reached a new historic high (2954) on the 1st of May 2019. And just when everything started to look nice and rosy again for investors across the world, a couple of 180 characters tweets by arguably the most powerful man on the planet triggered an avalanche of equities sales worldwide. We then decided to take a deep and thorough look at what actually happened in the Equities markets, to assess whether it was a textbook case of the famous Wall Street adage: Sell in May and go away.

Selloffs following record highs are usually fierce and should probably be viewed as some semblance of cathartic, particularly after 4 months of relentless upward move. As we stated in a former study (October CTA and HF catastrophe explained): drawdowns are generally seen as offensive these days.



They are a sign that something went “wrong” in the “natural” order of things (a very long equity bull market) and that the investing public deserves to know who was responsible.

2/ The trigger of the massive selloff

On Sunday the 5th of May, the following tweets hit the “twittosphere”:

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For 10 months, China has been paying Tariffs to the USA of 25% on 50 Billion Dollars of High Tech, and 10% on 200 Billion Dollars of other goods. These payments are partially responsible for our great economic results. The 10% will go up to 25% on Friday. 325 Billions Dollars....

[Donald J. Trump Verified account @realDonaldTrump](#)

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...of additional goods sent to us by China remain untaxed, but will be shortly, at a rate of 25%. The Tariffs paid to the USA have had little impact on product cost, mostly borne by China. The Trade Deal with China continues, but too slowly, as they attempt to renegotiate. No!

Futures on the Dow Jones Industrial Average immediately fell by over 500 points with the SP500 and Nasdaq futures loosing 2% and the Chinese equities markets collapsing by 6%.

We certainly do not intend to elaborate on the main reasons behind this somewhat surprising announcement, given the upbeat US officials comments during the month of April, as this study is not a political article.

But these two tweets had a kind of “Disaster looming” tag attached to them.

Indeed, not only were the SP500 and the tech heavy Nasdaq hoovering close to their newly reached historical highs (See chart 1 below S&P500 index in the green circle)

SPX Index (S&P 500 Index)

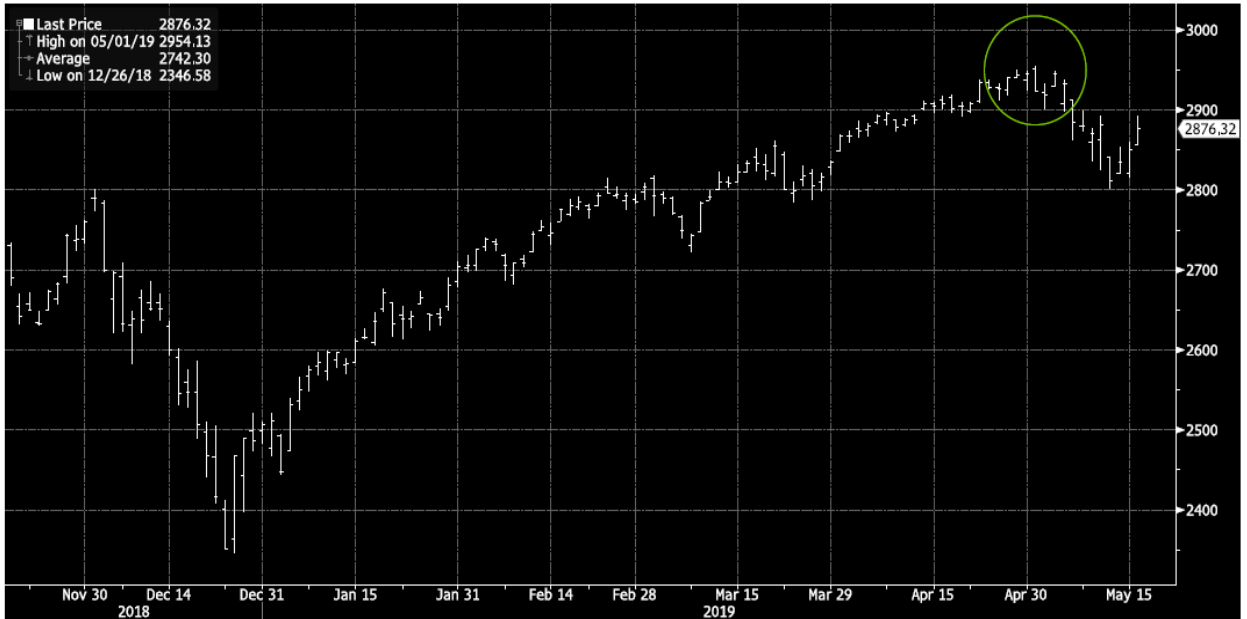


Chart 1 source: Bloomberg

but also the SP500 implied volatility, overwhelmed by persistent and massive selling, was reaching new lows (11.03% on the 17th of April as shown in chart 2 below), and the VIX futures NET non-commercial positioning was deep in negative territory, in fact it was an historical record net short! See chart 3 below

VIX Index (Chicago Board Options Exchange Volatility Index)

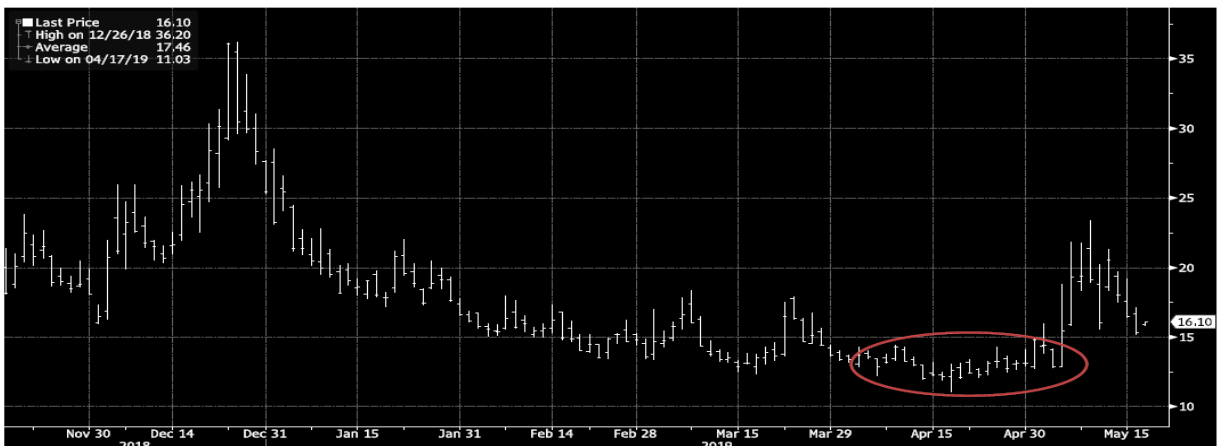


Chart 2 source: Bloomberg

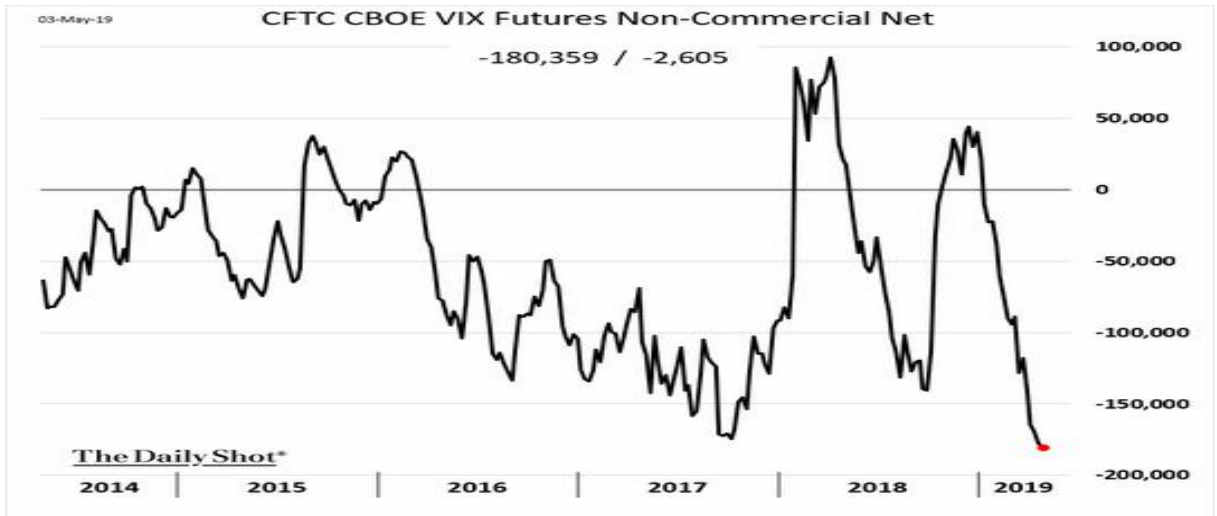


Chart 3 source: The Daily Shot

So on Monday the 6th of May, the markets initiated the U-turn which would eventually led to a 4.55% decline in exactly one week (See chart 1). And obviously this correction was accompanied by a nice short covering in volatility positions as shown by the following chart of the first VIX Future....

It climbed from a low of 15.5% to a high of 19.15% in just 4 days, which does not seem like a huge move (and it is not actually) but still represents an increase of 23.5%! For a nice visual, please take a look at chart 4 on the following page , the area in the green circle.

3/ The rush to the exits

UXM9 Index (CBOE Volatility Index Future)



Chart 4 source: Bloomberg

With the most violent daily move occurring on the 7th of May when the S&P500 index broke through what was at the time the very important technical support of 2880, triggering a massive flow of gamma related selling and a scramble to buy back options!

See chart 4 above the area in the purple circle.

The long gamma is built into the market, or more precisely in the dealers and market makers books, because in a trending higher type of a market, generally speaking, short-volatility strategies are not only proliferating in terms of numbers, but they are also growing in size.

More people are doing systematic roll-down. More people are selling strangles. More people are selling straddles. All sorts of yield-enhancement strategies. You can assume without any doubts that dealers are getting long gamma in areas of the market where it's ... useless. But, mainly for risk management reasons, people selling aggressively Vol. will buy an Out of the Money (OTM) Put to protect their position. That's a small premium to deduct from the overall amount you get from selling big premium options.

The key then becomes: where is the point where the market actually inflects towards short gamma because of the number of OTM Puts sold by market makers?

Because when the market has actually flipped into a short gamma area it means that as the market goes lower, dealers and market makers are getting wrong-sided (i.e longer and longer) and have to actually keep **selling more to maintain their hedges**.

So that's where you can get in a short-gamma environment and therefore get these really slippery moves.

On Monday the 6th of May, this area was sitting in the 2880/2890 S&P500 index zone. Thus the acceleration towards 2862 (low of the 7th) when the 2880 support was broken! See chart 5 below.

SPX / SPY consolidated gamma flips 'negative' at 2890:

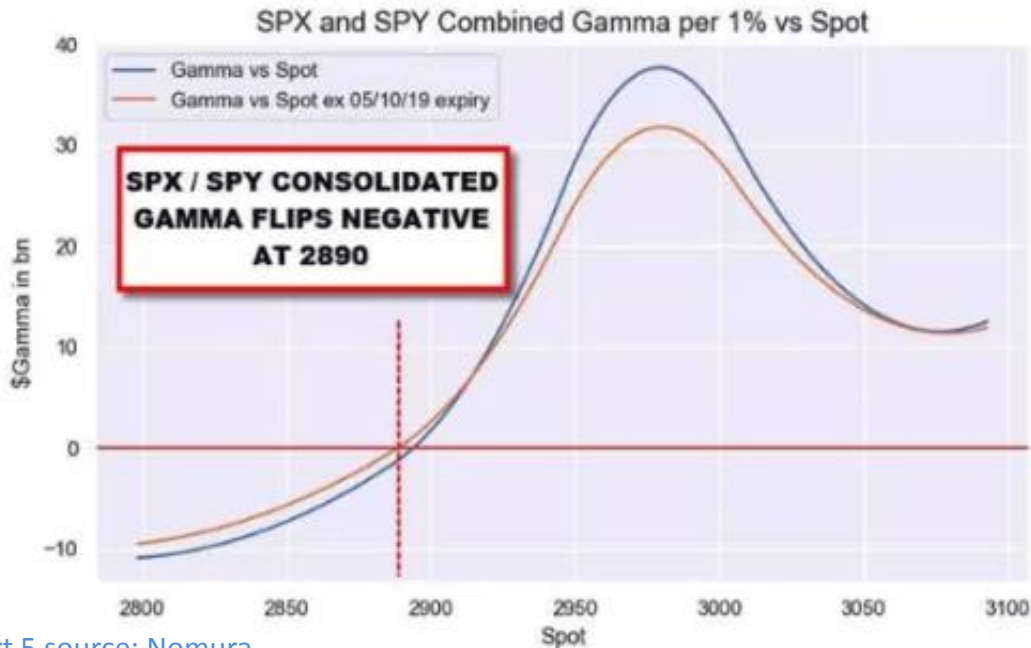


Chart 5 source: Nomura

Although it's worth pointing that compared to some of 2018's worst selloffs, the implications of dealer short gamma were not extreme, less than \$10Billions per 1% move of the index according to chart 5 (or around \$30 billion to hedge a 1% move according to Barclays....).

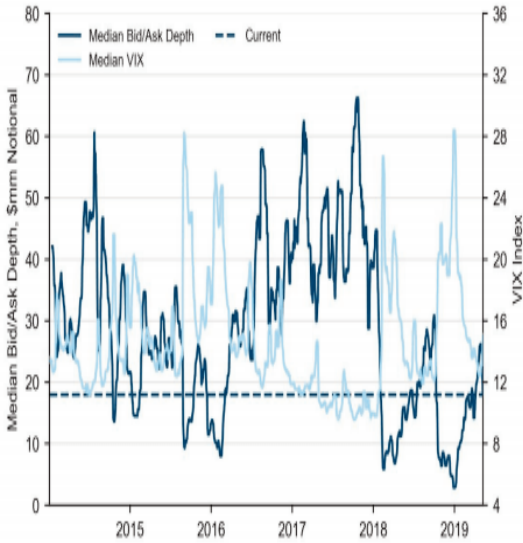
Add to that the convergence with the areas where the momentum trend, and CTA trend models, would actually hit their first deleveraging levels.

That outlines the intersection between the dreaded dealer short gamma flip and CTAs mechanically selling once benchmarks gap down through key levels. And as the famous financial blogger The RealHeisenberg put it: "When that plays out in a low-liquidity environment, downside moves are exaggerated, volatility spikes and the nexus between market depth and the VIX comes into play".

Indeed, the relationship between market depth and volatility is nonlinear. That is, market depth diminishes exponentially with the VIX moving higher. Typically when the VIX skyrockets like it did on the Vol-Mageddon day in February 2018 the market liquidity vanishes almost totally! That relationship is reflexive and it can be amplified by mechanical de-leveraging from CTAs (trend-following strategies) and market makers hedging.

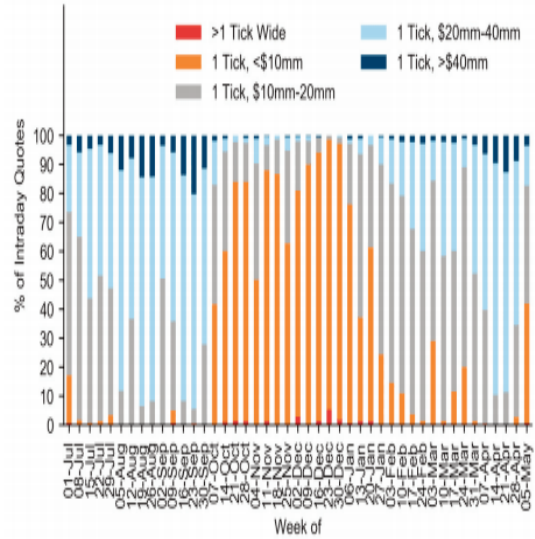
Here is one chart which will show you the level of market depth in the SP500 after 4 months of uninterrupted rally (left panel) and what happened last week when the depth as measured by the width and nominal volumes on the SP E_mini Futures got severely reduced (back to the January levels) in 4 days with what can barely qualify as a VIX spike....

Exhibit 24: Prior to the sell-off, top-of-book depth had not quite reached September's level
10-day rolling median E-mini future bid-ask depth, based on 5-minute intraday snapshots



Source: Goldman Sachs Global Investment Research, Reuters

Exhibit 25: Last week showed the worse top-of-book depth metrics since mid-January
Weekly distribution of SPX E-mini futures bid/ask width (# of 0.25 ticks) and size (\$mm notional), based on 5-minute intraday snapshots



Source: Goldman Sachs Global Investment Research, Reuters

Chart 6 source: Goldman Sachs Global Investment Research

And so by Tuesday the 7th of May in the afternoon, it became apparent that at least some of what has been described above was in play. At the same time, the VIX curve inverted, i.e the front months VIX futures became more expensive than the back months ones. This inversion was the largest since December 2018....

Here is a nice visual (see chart 7 below) taken on the close of the 7th of May following the VIX spike above 19%, compared to the same curve on the 30th of April, when the market was printing new highs every day....

Chart 8 underneath will show you that given the relatively contained 4.5% downward move in the S&P500 its implied Vol. curve inversion was massive, indicating real fear over trade negotiations.

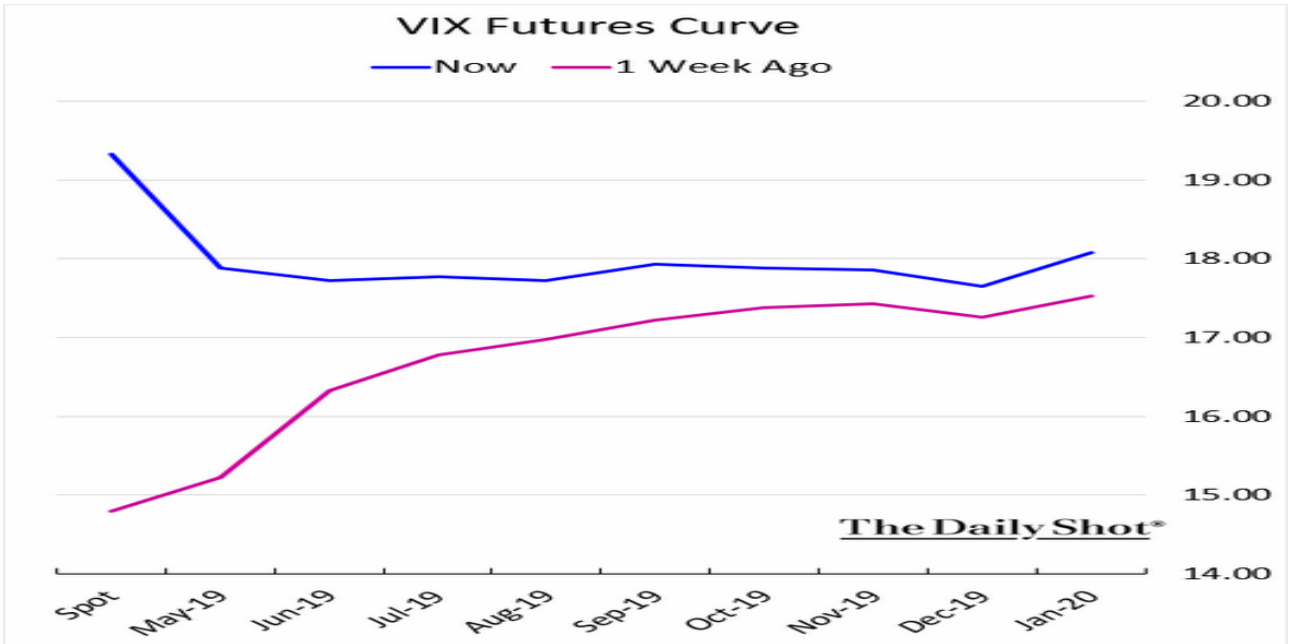
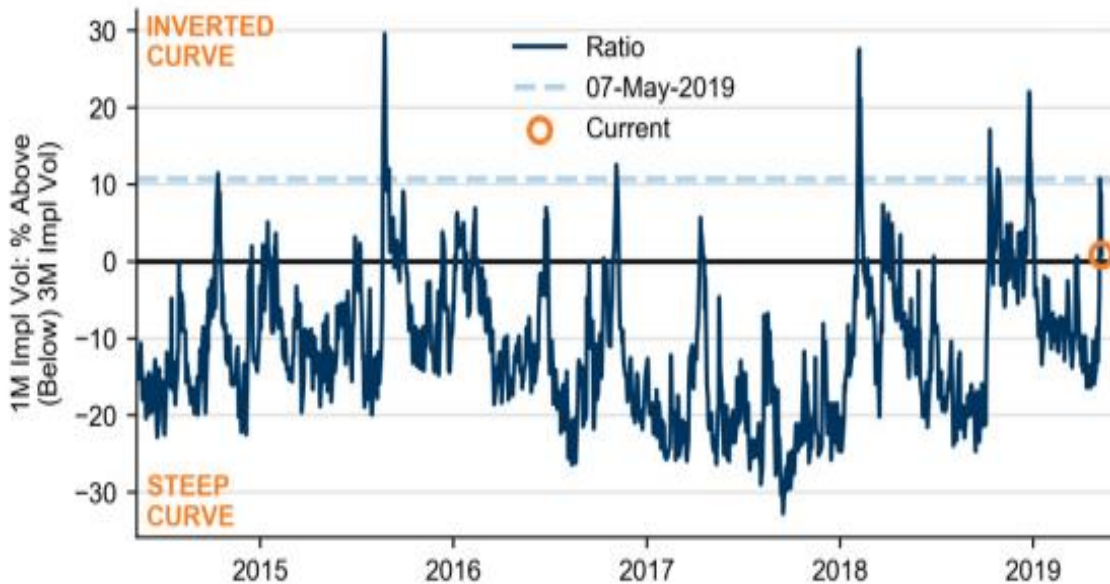


Chart 7 source: The Daily Shot

Exhibit 1: Implied vol curve hit one of its most inverted points in years - indicating acute fear over trade negotiations

Ration of one-month to three-month SPX 50-delta implied volatility



Source: Goldman Sachs Global Investment Research, Goldman Sachs Group Inc.

Chart 8 source: Goldman Sachs Global Investment Research



To say things normalized by Friday the 10th of May wouldn't be quite accurate though. Rather, volatility simply got tired, as in-the-money long Vol. positions were monetized (a long 2900 put position would have been quite profitable for instance) and evidence of renewed Vol. selling emerged (SPX put selling on Thursday the 9th for example) contributing to the VIX front month future diving under the 17% mark(See chart 4 again).

The (temporary?) bottom (at 2801.43) of this wave of selling was reached on the 13th of May, before a decent (dead cat?) bounce took the S&P500 back towards the previous support 2880/2890 (2892.15 traded on the 16th of May). This bounce obviously triggered some savage Vol. selling which took the VIX index back to 15.5% and the first VIX Future to just under 17% (see charts 2 and 4 again).

But that doesn't mean we're totally out of the woods yet when it comes to systematic de-leveraging. Volatility-control strategies will likely continue to de-risk in the days ahead as trailing realized Vol. was pulled higher until Monday the 13th. According to the Heisenberg, “estimates of further de-risking from those funds generally sit at \$20-25 billion”. Meanwhile for those not totally convinced that it is a textbook case of “Sell in May and go away” but willing to hedge part of their exposure, Put options of longer maturity, from September 2019 onwards still look relatively cheap, mainly because of the sharp increases in all the front months Vols. which left the back months relatively unexpansive compared to where they should be.

4/ Conclusion

Whether or not the sudden, and quite unexpected, correction of the equity markets around the globe is over is impossible to predict as I write these lines.

However what is important to bear in mind are the following facts:

- When it comes to trade negotiations between big countries do not totally bake in a deal before it is actually signed.
- When the total net short position of the non-commercial players on the VIX futures hit a new record high, expect a spike due to a massive short covering sooner rather than later....
- When this spike occurs, whatever the reason, do not expect the liquidity and the depth of the market to remain the same....

Ah and one last thing, all the tweets are NOT news....

B. SYRMEN
17th of May 2019