FROM THE CALM OF 2017 TO THE VOLATILITY STORM OF 2018.

VOLATILITY IS BACK WITH A VENGEANCE

IT'S VOL-MAGEDDON !!!

PART I: EQUITIES MARKETS

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The initial idea behind this article was, in fact, to exhibit the various risks and dangers of the so-called crowded trades. And, as at the beginning of 2018 the 2 most overcrowded trades on the planet were Short US Treasuries and even more widespread: short volatility, it became clear that the short vol trade would require a comprehensive study in itself.
Specially because of the different behaviors of the volatilities of the different asset classes. So here it is!

This survey of the financial markets volatilities in 2018, designed to be as comprehensive as possible, will therefore be divided in 5 different episodes, one per main asset class:

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1/ Equities markets
2/ Commodities markets
3/ Currencies markets
4/ Emerging markets
5/ Credit and sovereign bonds markets

In each of these 5 parts, we'll study the evolution of the volatility, both implied when enough data are available, and historical through the year, trying to explain why it moved, or not…

And we'll exhibit some facts that might surprise a few readers.

So let's start with the Equities markets, particularly the US markets

Where the subtitle could be:

Volatility: And you thought you were not exposed…

I/ INTRODUCTION: HOW DID THE YEAR START

It is well known now that 2017 has been one of the least volatile year for all the US equity indices. For sure the least volatile in fifty years. And obviously when the historical volatility is so low for such a long period of time, it catches the attention of many market players. The professional Volatility sellers (Vol Funds, Prop traders), the positive carry searchers (always very numerous in the current environment…), some of the trend followers (CTAs) and then the herd of followers, and finally the suckers (the individual investors like the former Target manager presented in the linked article: https://www.businessinsider.fr/us/former-target-manager-becomes-millionaire-using-short-volatility-trade-2017-8).

If you consider the US Equities volatility index benchmark: the VIX, which measures the volatility of the SP500 index and is quoted on the CBOE, the calendar year 2017 looks like that:

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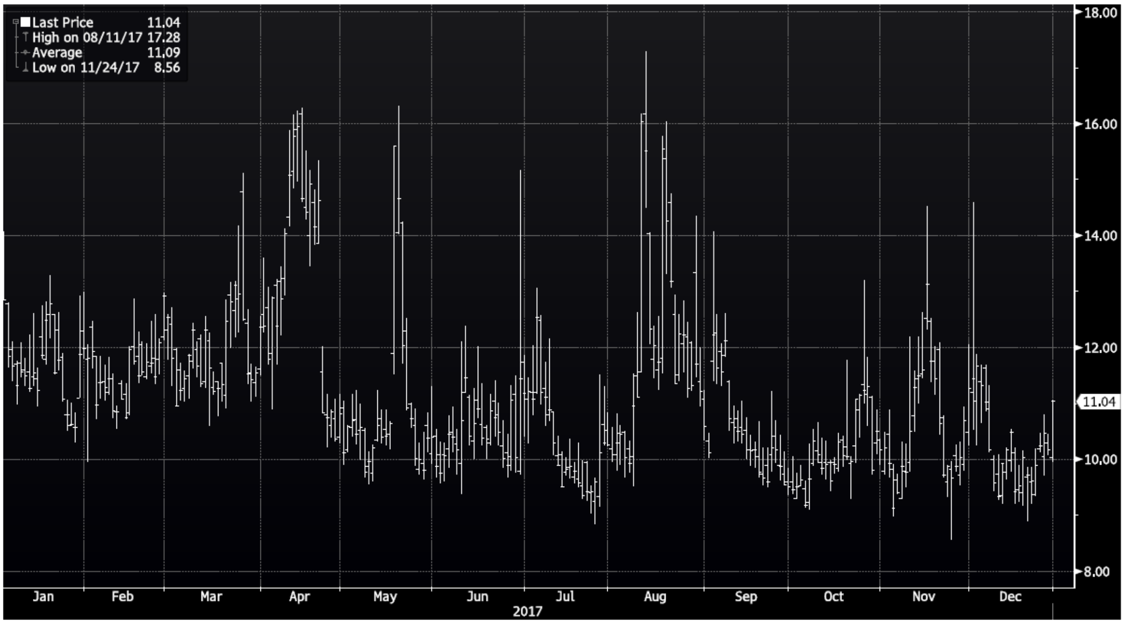
VIX Index (Chicago Board Options Exchange SPX Volatility Index)

Bloomberg



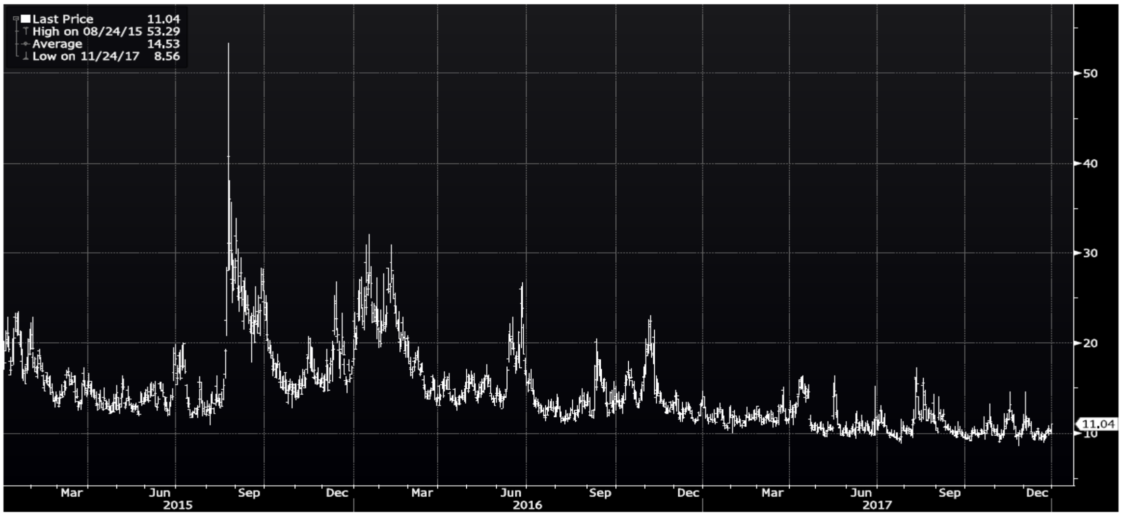
Source: Bloomberg

Where you can see that the VIX traded above 16, i.e 16% of volatility, during 7 days only, and above 17 only ONCE (the highest of the year on the 11th of August).

And to give you a sense of perspective here is the same index over the period of 3 years from January 1st 2015 to December 31st 2017. From the first week of November 2016, the last time the index traded above 20 (Trump election) to the end of 2017, the compression is fairly obvious.

Bloomberg

VIX Index (Chicago Board Options Exchange SPX Volatility Index)



Source: Bloomberg

So, with the VIX not only moving less and less but still trending lower, money started to flow in for all the volatility sellers, attracting therefore more and more players to enter the trade and benefit from it. So on the 1st of January 2018, the managed money (Funds mainly) net position on the VIX futures is around -100000 contracts, i.e close to its historic high reached in October. At least some of these guys had taken some profits when they came their way….

Bloomberg

CVXCTNCN Index (CFTC CBOE VIX Futures Non-Commercial Net Total/Combined)

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Source : Bloomberg

The first weeks of January were marked by what can only be described as “buying frenzy” in the equity market AND “indiscriminate selling” in the US Treasuries.

So consequently the US main equity indices reached what was at the time new historic highs on the 26th of January while the US Treasury bonds were relentlessly sold. See the 2 charts below, first the 60 mins SPX and then the 60 mins 10 years T - note future.

SPX Index (S&P 500 Index) Bloomberg

TY1 Comdty (Generic 1st 'TY' Future) Bloomberg

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Source: Bloomberg

But you always ignore the Bonds markets at your peril….

II/ THE EQUITIES VOLATILITY EXPLOSION IN FEBRUARY

The bond rout then started to spook equity investors as volatility jumped. As of Monday night in NY (the 29th of January), the S&P futures were down another 10 points, still less than 1% so… BUT, but, here is the VIX Index jumping from the 11.08 previous close to 13.84, +2.76 points, i.e an increase of 17.29%. And extending its move on the 30th to 15.42, i.e. a surge of 39.17% in 2 days!

Source: Bloomberg

Obviously with the Stock market climbing regularly in January, more and more investors piled into the short volatility trade, and what was already a crowded trade became an overcrowded one, as exhibited by the chart below. What happened on the 29th and 30th was just some participants realizing that the rising yields could force many institutional investors who shorted volatility to begin unwinding.

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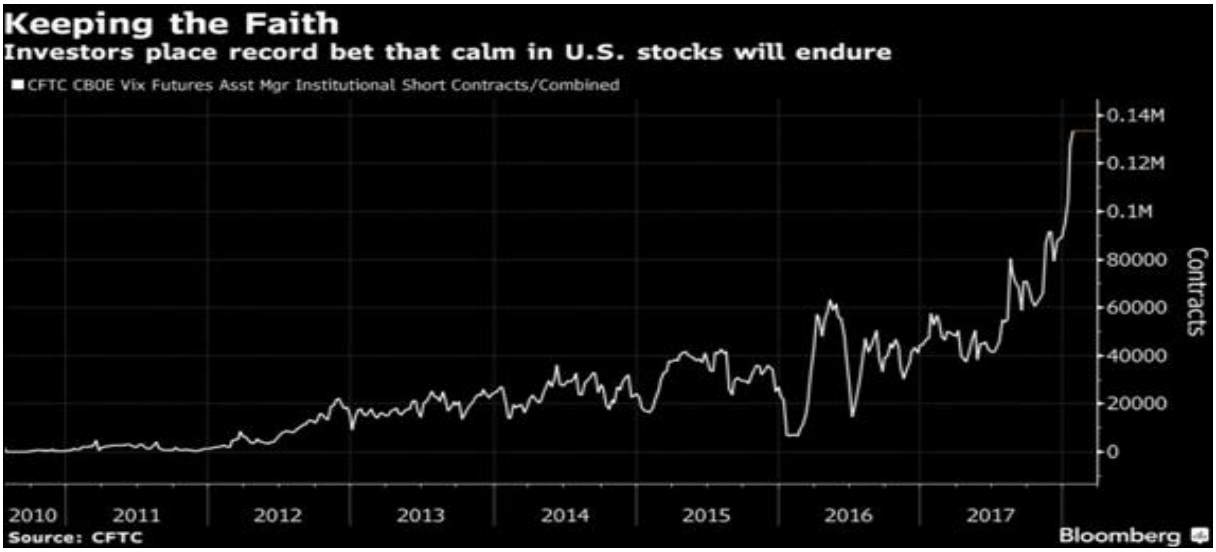

Source: The Daily Shot January the 30th

Following another surprisingly strong US economic report, this time the employment report on the first Friday of February, FED rate hikes loomed larger than ever before, and the Bonds sell off accelerated.

This time even the die-hard equity bulls had to take notice….

The following 10 Minutes chart of the SP500 Index will show you that plenty took notice indeed!

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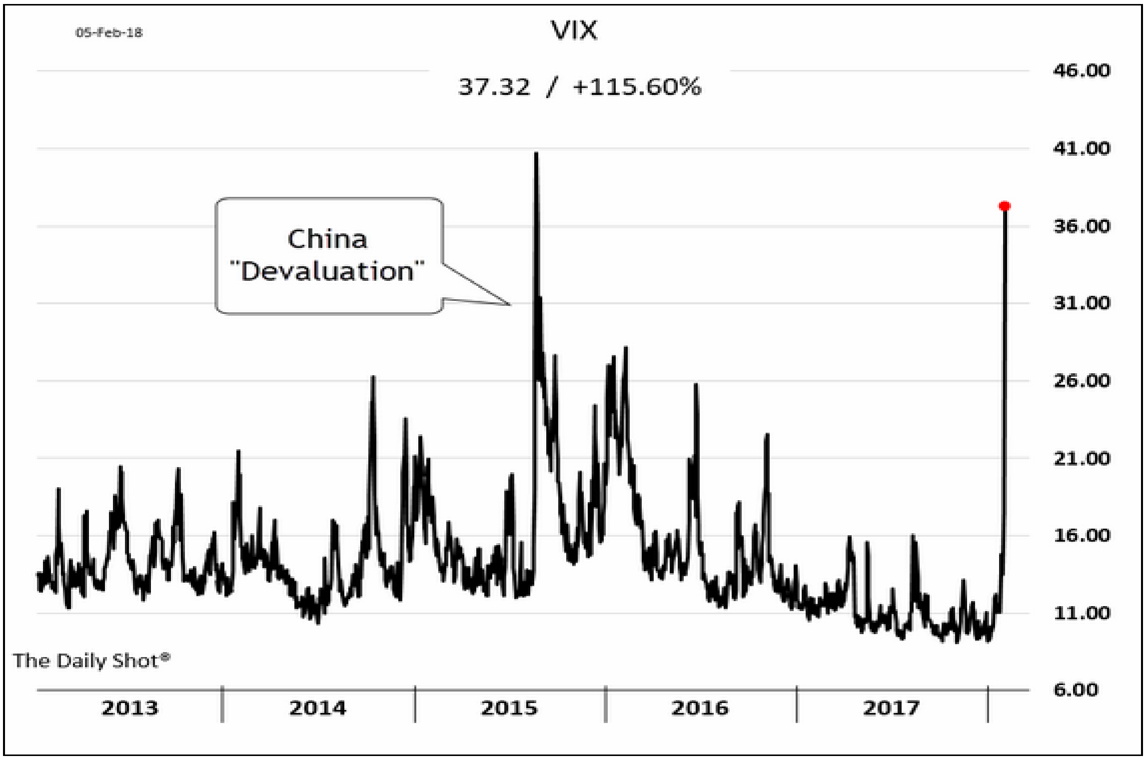
Source: Bloomberg

The volatility markets went haywire as VIX rose to the highest level since the China devaluation. And as Lev Borodovsky, the author of the excellent The Daily Shot letter, put it: “For the vol-shorting crowd, Monday the 5th of February 2018 was the time to pay the piper”.



Source: The Daily Shot Feb the 6th

As you can see, the increase of the volatility was truly massive. And its effects rippled all along the Volatility space, as shown for example by the change of shape of the volatility curve shifting in a few days from a “contango” (shape similar to a normal yield curve) to a steep backwardation, where the front months levels are always higher than those of the back-end maturities (like an inverted yield curve). This, ladies and gentlemen, provides us with an almost perfect example of a short squeeze!

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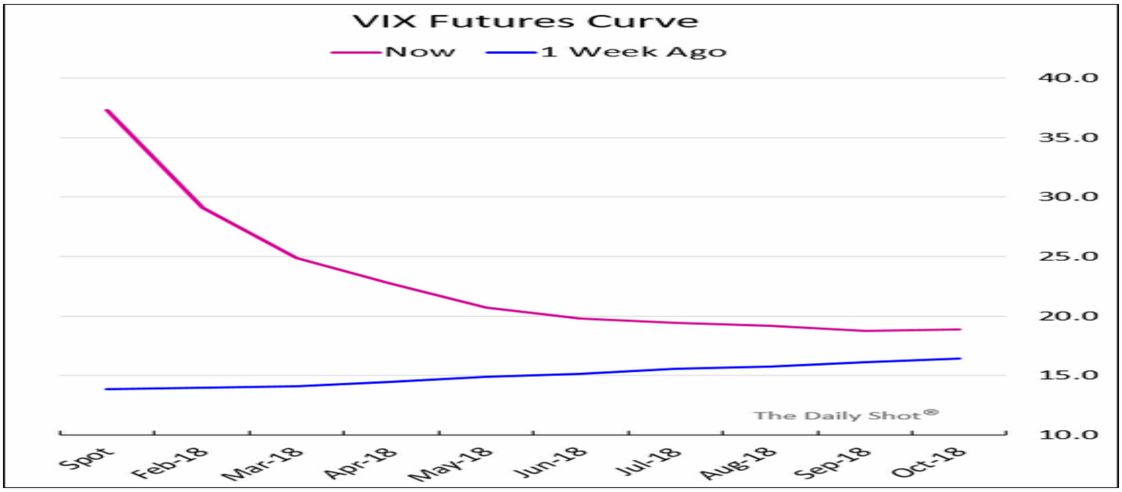

Source: The Daily Shot 6th of Feb 2018

The various inverse-VIX ETFs were hammered during the day as shown on the charts below.
First the most popular of all, the XIV ETN, a bit more than $1Bn AUM at that time:

Bloomberg

XIV US Equity (VelocityShares Daily Inverse VIX Short Term ETN)

Source:Bloomberg

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On that day XIV went all the way down from 90.15 to 70.56, i.e. a fall of 21.73%. Nothing abnormal there yet….

And here is the second most popular, the PROSHARES SVXY, for "prudent" investors as this one returns only HALF the inverse of the performance of the VIX Future.

Source: Bloomberg

This fall, from 428.76 to 280.6, amounts to a 34.55% decrease in the value of the SVXY ETF on this very day.

But it was what happened after hours that looked like Armageddon times for the Volatility sellers.

Just look at the charts of these two main inverse-VIX products after hours (XIV and SVXY).

First XIV and its 5 minutes charts, where you can get a proper idea of the damage: a staggering 94.70% collapse overnight. But then again XIV was a Credit Suisse Note paying the investor the inverse performance of the VIX Index Future. So when the VIX DOUBLES in a day, i.e. skyrockets 100% or more, the estimation of the XIV return on the day is fairly straightforward….

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XIV US Equity (VelocityShares Daily Inverse VIX Short Term ETN)

Bloomberg

Source: Bloomberg

The XIV NAV printed below 4% even as the security officially closed at 75.63% a few hours before!

What investors forgot or didn't really understand was that the design of the note meant that there was always a real possibility (or a slightly positive probability) that they would end up with **zero**, even if VIX began declining again after a huge spike. In technical derivatives "jargon" investors in that kind of products are effectively short a "knockout" Put option.

If on the 7th of Feb the VIX Future had collapsed from 50 all the way back to 10, i.e. 80%, the XIV holders would have gained 80% of course, but the NAV would have ended at ...7.2% (4*(1+0.8)%).

And now, the far less ambitious SVXY:

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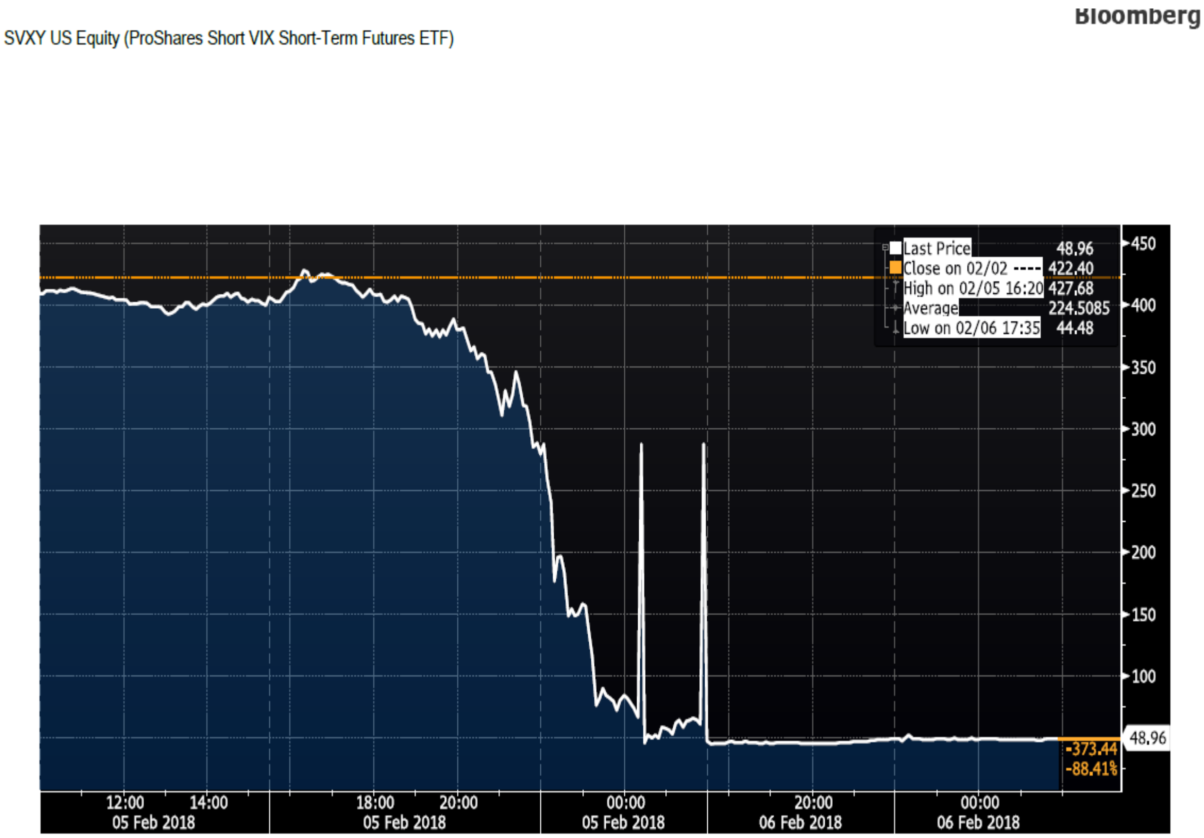

Source: Bloomberg

Still a more than 80% collapse for a security supposed to deliver "only" a **half** of the inverse of the VIX Future… Remember that the VIX Index, and the related future, skyrocketed 115,6% that day? So the SVXY should have come off by 57,8%. The more than 20% difference came from the panic selling of investors realizing all of a sudden that they were loosing their shirts, and trousers as well….

So these 2 products, and their investors, were virtually wiped out in 24 hours.

Obviously, the whole world took notice, and what was initially purely financial breaking news quickly became worldwide headline news.

For example, here is the way CNBC treated the news late in the day.

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Obscure security linked to stock volatility plummets 80% after hours, sparking worries of bigger market effect

CNBC

Evrim Aydin | Anadolu Agency | Getty Images

An exchange-traded security which is supposed to be a bet on calm markets was collapsing after hours.

The VelocityShares Daily Inverse VIX Short-Term exchange-traded note (XIV) is down more than 80 percent in extended trading Monday. The security, issued by Credit Suisse, is supposed to give the opposite return of the Cboe Volatility index (VIX), the market's widely followed turbulence gauge.

Source: CNBC

One of the main questions at that time was: What impact will it have on the broader markets?

The long-awaited correction in the US stock markets already well on its way, could this Black Swan event turn into something nastier?

It quickly appeared that it would not be the case, as one of the most reliable indicators of volatility forward moves, the volatility-of-volatility index (VVIX), rose much less than VIX, suggesting that investors were far less willing to buy call options on VIX at these levels. In other words, the short squeeze being done, they were not really keen to buy volatility on these levels .

Here is the VVIX/VIX ratio chart.

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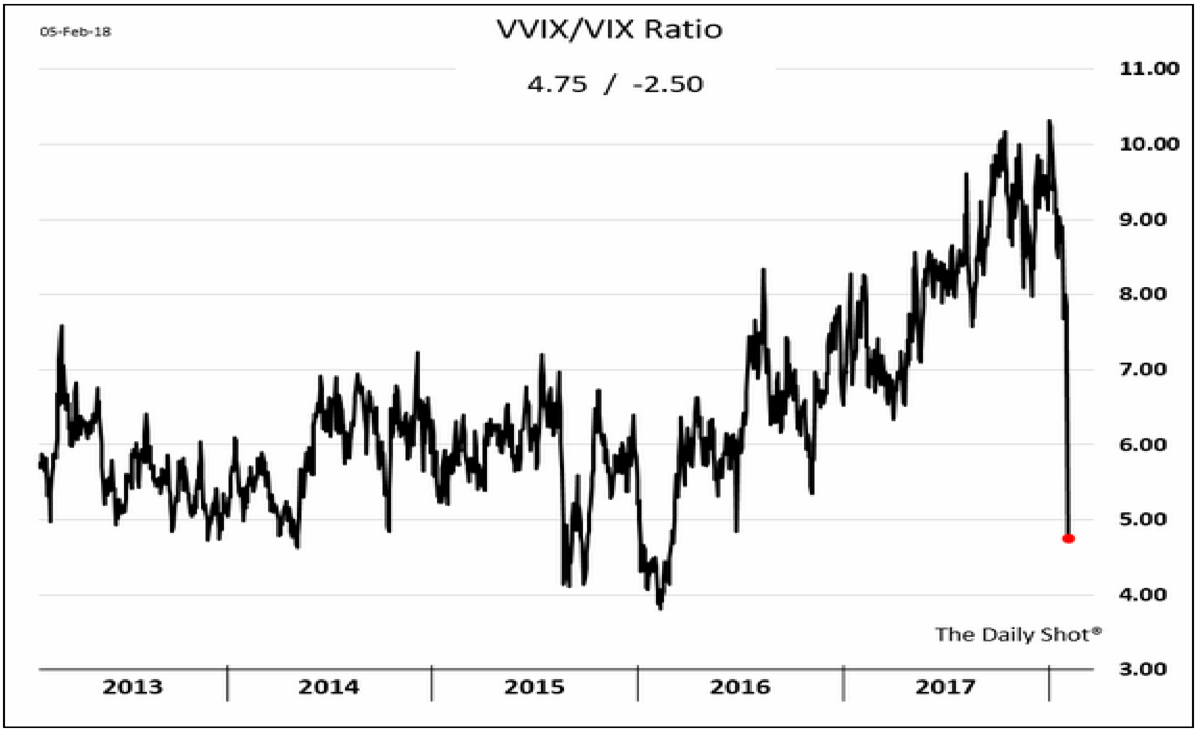

Source: The Daily Shot February the 6th

It appears that many short volatility investors had been stopped out or sometimes wiped out in a matter of one week.

That is how volatile things can be when you play with volatility… Volatility can be well, very volatile….

III/ THE AFTERMATH OF THE VOLATILITY EXPLOSION

In the days following the XIV Explosion, the note was liquidated by Credit Suisse, according to its prospectus. Six and a half years of consistent gains had been erased in a few days, the chart below will show you.

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XIV US Equity (VelocityShares Daily Inverse VIX Short Term ETN)

Bloomberg

Source: Bloomberg

As for the SVXY ETF, the PROSHARE Advisors issued a statement on Feb the 6th:

ProShare Advisors Statement on ProShares Short VIX Short-Term Futures ETF
2018-02-06 14:37:00.155 GMT

BETHESDA, Md. -- February 6, 2018

ProShares, a premier provider of ETFs, announced today the performance on Monday of the ProShares Short VIX Short-Term Futures ETF (SVXY) was consistent with its objective and reflected the changes in the level of its underlying index. We expect the fund to be open for trading today and we intend to continue to manage the fund as usual.

Show must go on…. And on it went, see the chart below, although the AUM are now a poor $47 million.

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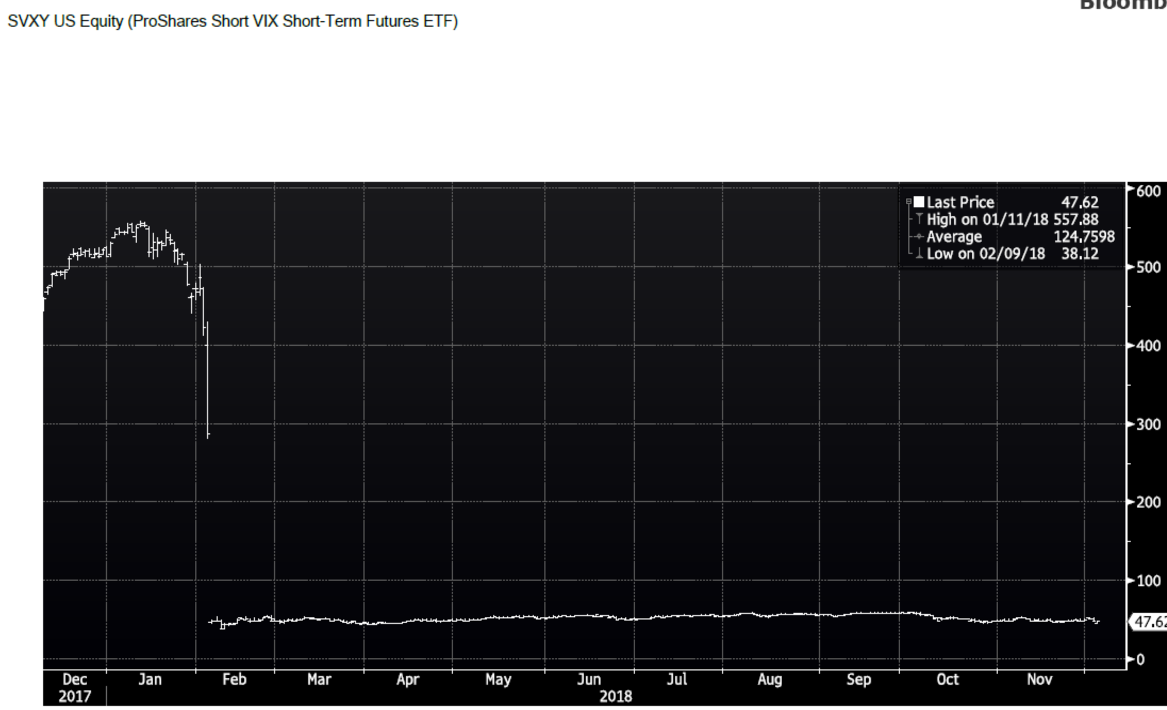

Source: Bloomberg

As for the US equity market as a whole, it eventually recovered to reach new all-time highs towards the end of the summer, when another correction hit it hard.

IV/ CONCLUSION: BEWARE OF THE VOLATILITY RISK

The incredible collapse of the main inverse of VIX Future ETFs in a matter of a few days that we just studied should help investors to remember a few things when they consider playing with volatility instruments:
-1/ Shorting Volatility has never been, never is and never will be a riskless game!
-2/ It's not because a trade has worked well during a lengthy period of time, here about 2 years, from February 2016 to February 2018, that it will always work.
-3/ The TIMING of ANY volatility trade is the most important thing.
And the timing to determine when NOT to enter a trade is as crucial as the one to get into a trade.

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-4/ Linked to 3/: Always check what the market position is. If the short volatility trade on a given market seems already overcrowded, maybe these are not ideal conditions to jump in. Short squeeze can happen faster than you think.
-5/ Whatever the instrument you chose to express a bearish view on volatility, VIX Type Future, Listed Options, OTC Options, Var Swaps, Structured products or ETFs, make sure you know them inside out! Be certain that you fully understand what the worst case could be and when it can happen.
You will then have a greater chance not only to avoid the fate of the slaughtered XIV investors, but to end up getting a few yield enhancing bucks.

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