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Short volatility risks: déjà vu?

For many market participants and especially volatility investors, February 2018 provided an experience that's been difficult to forget: within one day, stock volatility recorded a massive jump; in the wake of this, short volatility strategies recorded significant losses.

For a few days now, there have been a number of articles in the trade press, which draw parallels between now and the time immediately before this event.[1] Could a similar volatility jump and/or a clearly negative correction for the stock market be imminent? It's indisputable that, even today, short volatility strategies would be negatively affected by a sharp rise in volatility.

7orca would like to take this opportunity to compare these two market situations, highlight parallels but draw attention to important differences.

February 2018: The „Volpocalypse"

In February 2018, the US equity market corrected abruptly after almost two years of steady growth. European stock markets followed, albeit at a slightly slower pace. More serious for volatility investments, however, was a massive increase in volatility. The *VIX Index*, a measure of future short-term volatility on the US stock market and an indicator of market participants' uncertainty worldwide, recorded its largest increase in years within a very short period of time. From historically low levels, volatility jumped by around 50 percentage points.[2]

Several volatility sellers who sold without hedging experienced existential losses. This event was, therefore, referred to in the press as, variously, „Volmageddon", „VIXplosion" or „Volpocalypse".

Possible catalysts for the volatility leap

The exact causes of the overreaction in the volatility market in February 2018 are difficult to determine. Opinions among market participants are complex. Some observers are of the opinion that a correction was overdue and a reaction to the bull market of previous years that had not wholly been driven by fundamentals.

Others argue that there was a manipulation of the *VIX Index*. Traders might have manipulated the *VIX Index* by quoting exaggerated price offers for less liquid S&P 500 options far out of money. The *VIX Index* is calculated on the basis of quotes rather than actually traded options prices.

Another theory sees the root cause in strongly increased speculative short VIX future positions. As a result, there would have been a short squeeze, as some investors would have had to reduce their risk in the short term and cover their open short positions. It may be difficult to extract the truth from the information available. The real truth may involve a combination of the possible causes described above.

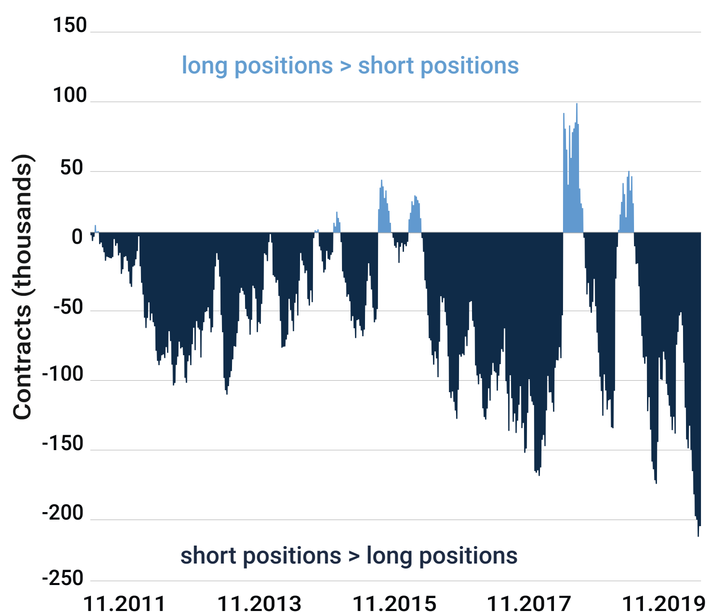
Market situation in autumn 2019: déjà vu?

In the autumn of 2019, the appearance of parallels to spring 2018 cannot be denied. Global stock markets have risen significantly since the beginning of 2019 and have recently reached new highs.[3] This is surprising, considering the prevalence of gloomy economic data.

At the same time, the following paradox can be observed: since the summer, the volatility of equity, currency and many commodities markets has been declining steadily, while the *Global Policy Uncertainty Index*, which measures market participants' assessment of economic policy uncertainties, has shown increasing pessimism.[4]

Speculative transactions of VIX futures positions show a new net low, i.e. speculative short positions exceed long positions. The *CFTC CBOE VIX Futures Non-Commercial Net Index* provides on the evidence for this. This index represents the net position of VIX futures transactions that are not used for hedging purposes.

Fig. 1: CFTC CBOE VIX Futures Non-Commercial Net Total (balance of long and short positions)



Source: Bloomberg, 7orca Asset Management AG. Period: 01.11.2011 - 05.12.2019

As of November 2019, the majority of investors were short positioned in VIX futures and were, therefore, betting on continuity of the low volatility regime. Is this a sign of a short squeeze and an abrupt correction?

Market situation February 2018 = Market situation autumn 2019?

February 2018 was preceded by two years characterised by continuously rising stock markets. This had been supported by an accommodative monetary policy on the part of both the ECB and the Fed. Risk aversion had increasingly receded into the background.

The second half of 2018 and 2019 to date have shown differences:

In October 2018, the global equity market recorded its largest decline within one month since 2011; this was fuelled by the trade war between the USA and China. After brief respite in November, things started to shape up similarly in December 2018. An environment of constantly falling prices in bond markets now seems to be a thing of the past; in 2019 these fluctuated considerably more. This shows that risk aversion behaviour is intact: negative headlines have followed price reactions in markets. A blind confidence in the support of central banks cannot be observed to the same extent as at the beginning of 2018. Watchful and cautious market participants contradict the possibility of a „nasty surprise“ in the volatility market.

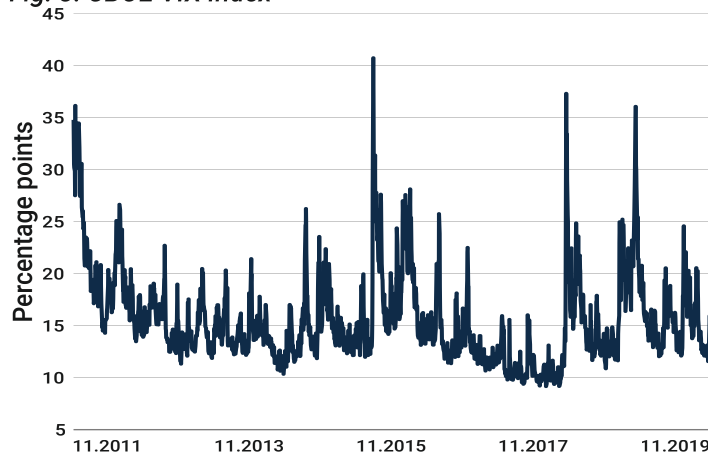
Evidence for this behavior can be seen from the ratio of outstanding put options to outstanding call options on the *S&P 500 Index* over one month. With a value of 2.2, this ratio is significantly higher than before previous market corrections. A higher ratio reflects a higher demand for put options, which are mainly used to hedge against stock market setbacks. This is, therefore, used as a sentiment indicator.

Fig. 2: One-month average of outstanding contracts of S&P 500 put versus call options

Source: Bloomberg, 7orca Asset Management AG. Period: 01.11.2011 - 05.12.2019

The *VIX Index* has not yet reached a record low of less than 10 percentage points and is trading at levels comparable to those seen between 2012 and 2015. This low implied volatility should, in any case, give no cause for concern. These values are not exceptional in historical terms.

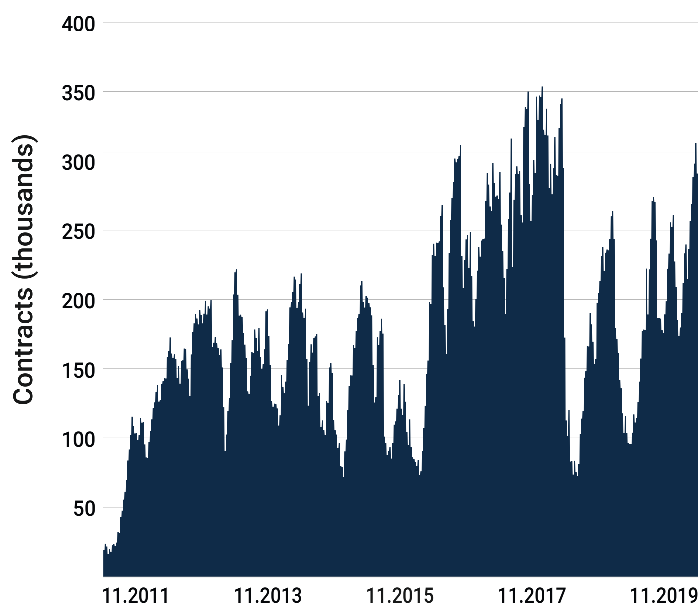
Fig. 3: CBOE VIX Index



Source: Bloomberg, 7orca Asset Management AG. Period: 01.11.2011 - 05.12.2019

Net speculative transactions in VIX futures are at new record levels. However, the absolute number of outstanding short positions has not yet reached the level seen at the end of 2017/beginning of 2018. The *CFTC CBOE VIX Futures Non-Commercial Short Contracts Index* shows that, potentially, fewer volumes have to be closed out with countering long VIX futures.

Fig. 4: CFTC CBOE VIX Futures Non-Commercial Short Contracts



Source: Bloomberg, 7orca Asset Management AG. Period: 01.11.2011 - 05.12.2019

At the same time, the volume of long positions in the volatility market has risen significantly since 2018. This has mainly been driven by market participants seeking hedging for their equity investments. Accordingly, they have invested in vehicles that benefit from an increase in volatility. The three largest ETFs of iPath/Barclays, ProShares Trust and VelocityShares/Credit Suisse[5] alone were able to gain more than USD 2 bn in total since February 2018.

These providers on the long volatility side did not exist to the same extent in February 2018. Today, they must be compared with the short position in speculative VIX futures and we must take this into account when assessing the net short positions.

Conclusion

Parallels with 2018 are particularly evident in the net short positioning of VIX futures. A conclusion that these are the basis for a significant and immediate increase in volatility does not go far enough. The current situation, some of which is described as threatening by the press, is not directly comparable with that of February 2018. As we have explained, we currently see no increased danger of a short squeeze from a differentiated perspective. Nevertheless, an abrupt jump in volatility can never be ruled out. This is also the reason for the existence of the volatility risk premium - and its attractiveness to investors. It is essential that there will be a correction at some point, because the volatility risk premium, like any other risk premia, is dynamic. Timing is extremely difficult here.

A positive side effect of the „VIXplosion“ was the consolidation of the short volatility market. Suppliers of unsecured and heavily leveraged products had to liquidate their strategies[6] or make adjustments in order to continue to survive in the market.

The 7orca approach to harvesting the volatility risk premium

In our opinion, a systematic, rule-based approach is the most suitable for collecting the volatility risk premium. At 7orca we respond to changes in the market environment and our investment process provides for the exposure of our strategy, i.e. the number of options sold, to be reduced in an environment of decreasing/low volatility. For risk diversification, we generate the premium across several underlying instruments and asset classes. In this way, the risks of rising volatility on the stock market can be mitigated.

The premium in the bond market is currently attractive and we achieved a good performance from this underlying in November.[7] In a steady, sideways market, our strategy for currencies has also made sustained positive performance contributions.[8]

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Sources

[1] Sources: Bloomberg, "The Short-Volatility Trade Is Now So Big It's Starting to Break", as of 22.10.2019, "Record Short VIX Positioning Reflects a Ton of Fear Elsewhere", as of 04.11.2019; Seeking Alpha, "Market Volatility Bulletin: Short VIX Futures Positioning At All-Time Record. And That's Okay", as of 12.11.2019; Zero Hedge: "VIX Futures Hit New Record Short: Is A Historic Volatility Squeeze Coming?" as of 15.11.2019

[2] Source: Bloomberg. VIX Index. Period 05.02.2018 - 06.02.2018.

[3] Source: Bloomberg. MSCI World Index. Period: 01.01.1968 - 05.12.2019

[4] Source: Bloomberg. Deutsche Bank FX Volatility Indicator, CBOE/COMEX Gold Volatility Index, Chicago Board Options Exchange Volatility Index, Global Policy Uncertainty Index, VIX Index. Period: 01.06.2019 - 05.12.2019

[5] Bloomberg tickers: iPath/Barclays (VXX), ProShares Trust (UVXY) and VelocityShares/Credite Suisse (TVIX)

[6] Example: XIV Fund from Credit Suisse.

[7] Source: 7orca Asset Management AG, Universal-Investment-Gesellschaft mbH. 7orca Vega Return investment funds, unit class I. Performance contribution of the strategy on underlying bonds: +0.27%. Past performance is not a reliable indicator of future results. The BVI method is used to determine performance (excluding front-end load). Investment results may be reduced by individual custody account costs. Period: 01.11.2019 - 30.11.201

[8] Source: 7orca Asset Management AG, Universal-Investment-Gesellschaft mbH. 7orca Vega Return investment funds, unit class I. Performance contribution of the strategy on currency basis values: 2.37%. Past performance is not a reliable indicator of future results. The BVI method is used to determine performance (excluding front-end load). Investment results may be reduced by individual custody account costs. Period: 01.02.2018 - 30.11.2019.

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