

Predictive Analytics

Quantifying Fear & Greed

— Sandeep Tandon (Founder & CIO, quant Money Managers)



Something's brewing – A tail event risk in Jun-Sep 2023...

Capitalise rather than capitulate



quant Global Research (qGR) has been showcasing the VEP (Volatility Expansion Phase) between 2018 and 2023. So far, this outlook has played out quite well and we are now in the climactic phase of the volatility expansion cycle. In this phase, volatility will spike sharply before it settles down and gets into its multi-year contraction cycle. Our 'Predictive Analytics' is endorsing this outlook, as something is **"Brewing"** in the *Energy and Currency Markets*, and these asset classes will be the source of the current phase of volatility expansion. Put simply – what exactly is wrong is not apparent, but what is visible in our data analytics is that **something is not quite right**. Our multi-dimensional research is showcasing a high probability of such an event or a fear-driven volatility spike playing out in the next few weeks.

Volatility captures great amounts of predictive information

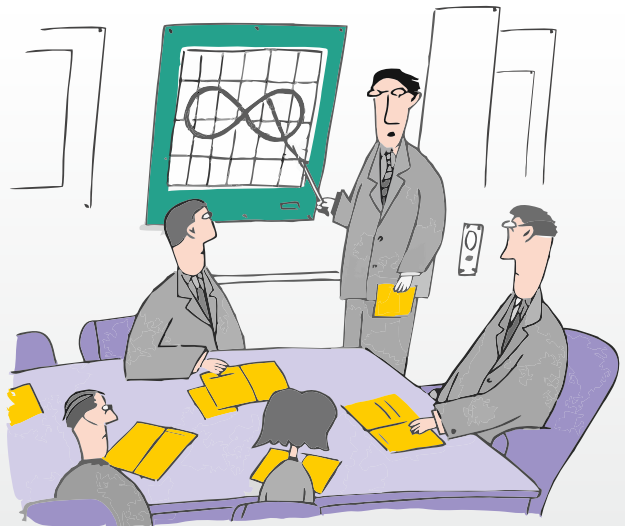
At quant, the concept of volatility is more than just a risk indicator, or just a statistical measure or perceived fear index. We consider volatility to be a more significant and broader phenomenon – it is the deviation of market participants' collective perception from reality. At qGR, we have studied volatility as a distinct asset class for more than three decades, having extensively utilised its signals to safeguard capital during the 2008 global financial crisis and the 2020 pandemic meltdown.

Given the increased correlation among asset classes, even diversification is not an effective protection against spike in global volatility, as prices across asset classes get impacted with a lag effect. Therefore, qGR believes that the ability to accurately forecast global volatility is the key to protecting portfolio returns and capital. Volatility provides predictive information on current market trajectory by quantifying the difference between actual risk premium and what the market is pricing in. Proper understanding of the various states of market volatility, and their dynamic effects on the financial economy and the real economy, facilitates the recognition of inflexion points.

qGR practices the VLRT framework and particularly operates on inflexion points. The core innovation behind the VLRT framework is the synthesis of various dimensions to identify inflexion points, long before the larger trend plays out. For identifying cross-asset, cross market inflexion points, qGR's VLRT framework is the most suitable tool. Leveraging our deep insights in to macro cycles and business cycles, the identification of changes in volatility regimes is a powerful source of Adaptive Alpha. We can presciently spot time spans of high probability of transition to an elevated volatility regime or when volatility indices are likely to spike, which can be based on any event or perceived risk of changing global macros or even on some prevailing narrative in the media or research reports.

Beware Mr Market, you might be getting complacent!

Current consensus market opinion is relatively rosy with little discussion on key emerging economic, financial and geopolitical risks, which are now suppressed or in a state of suspended animation. As we stand today, low levels of VIX across DMs and EMs and concomitant exhibition of burgeoning risk appetite (Bitcoin at \$ 26,828 is only ca. 14% off its 12 months highs), even as major issues around the world, such as the Russia - Ukrainian conflict, Japanese monetary and fiscal crises, the American presidency, the Taiwan issue, border conflicts along India & China, Israel & Palestine, Iraq & Turkey, migrants crisis in Europe and a whole host of other issues fester on, are classic signs of build-up of complacency after big capitulation in US equities in



“...And it was at this point that we realised we made the same silly mistake before.”

September-October 2022. Just two months back in India, fear was extraordinary and market participants, including institutions, were reluctant to participate in the India equities, particularly mid and small cap names.

We regard the transition of a low volatility to high volatility stage as an inevitable evolution, which the market has repeatedly ignored and often fails to even consider.

With falling levels of volatility in the sensitive derivative markets, which is where the reading of the Volatility Indices is derived from, participants are evidently viewing the future as more predictable, and thus pricing lower the element of uncertainty in pricing of options. This lower pricing of uncertainty could back fire as depressed

readings for volatility turn in to spikes, which will cause participants to kneejerk and drive the market down.

qGR views such an outcome as more of an opportunity than as a risk and has perfectly positioned its portfolio to ride through this storm, survive the volatility spike event, and come out on the other side with more resources than others to seize upon the opportunity.

The oncoming risk of outsized volatility event over June – September, 2023

We believe that there is an outsized risk of a high volatility event in the near to medium term horizon – most likely in the timeframe between June and September, 2023, and the probability is very high that the event can occur in the month of June itself.

Our 'Predictive Analytics' is highlighting a sharp spike in **Energy** prices in the month of June and or July, 2023, for both Natural Gas and Crude Oil. If we analyse the entire basket of global energy carefully, we can easily see that a potential spike in prices is round the corner. When we reverse calculate the impact of the same via our 'Market Implied Analytics,' we can say that the probability of geopolitical risk is equally high. Some negative development will come either from OPEC or an oil producing country or there will be some unwarranted tension in Middle East. However, this potential event risk will last for only few weeks as the long-term outlook for the price of crude is weak, as relevance of crude will decline in the current decade.

The second important risk brewing is in the **Global Currency Markets** as the de-dollarisation thesis has created unwarranted complacency in the financial markets and participants have taken for granted that DXY has finally collapsed from the long-term perspective. qGR was very timely in writing about “De-dollarisation” thesis in **May, 2019 in our book “Being Relevant.”** The relevance of Dollar will decline definitively, but not when everyone has taken that for granted. DXY has already reversed from the recent low of ca. 100 levels and then spiked sharply to 104.7. Our “Predictive Analytics” is also suggesting that the DXY rally has more legs, despite the consensus opinion of it having been a temporary spike, thus endorsing that something is “Brewing” among global macro parameters. Market participants are ignorant as complacency has risen substantially in the past few weeks among global asset allocators. One should not be surprised if DXY retests or crosses its 2023 high, and breaks out above this, opening the doors to retest the 2022 high.

If we analyse the components of DXY, the biggest discomfort comes from USDJPY pair. Multiple macro data of Japan are quite disturbing, but global participants are equally enthusiastic about Japanese equity. Japan

will emerge as the biggest risk and USDJPY will be the most vulnerable currency this decade. Japan, being the third largest economy in the world, will create unnecessary noise in the global financial markets, as the Yen has been the most relevant carry trade currency and the full measure of its impact needs to be appreciated. Similarly, Swiss Franc is another currency of concern and a sharp depreciation is on the cards. EM currencies also have potential to depreciate, including Indian Rupee and Chinese Renminbi - their recent weakness is testament to our thesis.

As clouds gather, quant has optimally geared its portfolio to prosper on the other side

Volatility regime changes in financial markets help reveal tectonic shifts in long-term cycles. We have seen that in the final stages of any cycle, extreme events unfold. These are the times when Dynamic Style of Money Management generates significant alpha. Therefore, at quant, we are inflexion point and cycles strategists, instead of momentum chasers. With a far more holistic understanding of timing volatility and market cycles, we at quant Mutual Fund believe that by positioning our portfolio conservatively at the current juncture, we will be able to deploy a higher quantum of liquidity in more yielding opportunities lower down on the cost curve later, thus better managing risk.



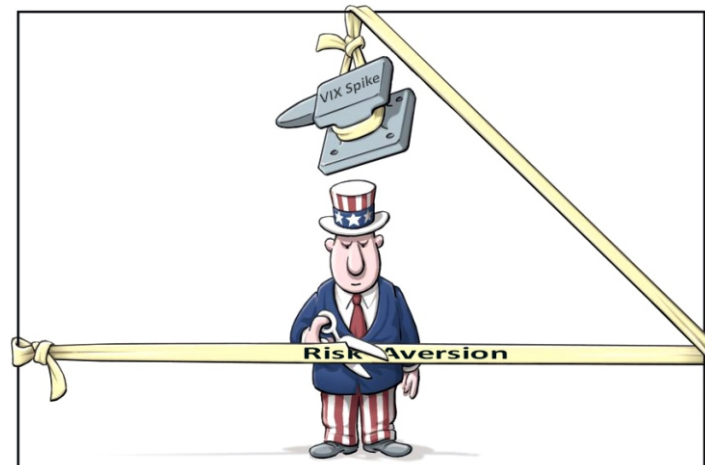
In order to seize upon the opportunity and capitalize on lower prices and attractive valuations, our portfolio has been geared to, momentarily, curb risk appetite and conserve liquidity. The wider market is positioned aggressively at the current juncture of time and has its blindfolds perfectly in place, thus ignoring the rather predictably timed tail risks, which our probabilistic framework is flagging up.

Adaptive investment strategy will win out eventually

In February 2023, our Predictive Analytics note correctly forecast that Global Liquidity will strongly rebound in 2023 and that 2023 will be a better year than 2022 for global asset classes because of the bottoming out of liquidity cycle. Economic momentum has indeed picked up and we continue to believe that by the second half of the year, global asset markets should be propelled to a higher level. We had also stated that, the bout of volatility in Indian equity markets witnessed then, leading to a capitulative move in many heavyweights, offered good opportunities in banking sector equities, which has by-and-large played out quite well.

We believe that today, we are at an important juncture, as the VLRT multi-dimensional framework clearly points out that a medium-term bottoming process of Risk Appetite is near, providing the impetus for a new cycle. The last time the VLRT framework multi-dimensional variables were coming together to indicate such a turning point was in March-April 2020, post which there were strong resulting trends to the upside.

Since we are very constructive on Indian macros, any such event will give us phenomenal buying opportunities and we will realign our equity portfolios from being currently Large Cap-centric to Mid and



Small Cap-centric, as the Risk-off cycle should bottom out by June/ July, 2023 and markets should rally from after September, 2023. Post Q3 CY23, global markets will rally as Global Risk Appetite Analytics for various countries and multi asset classes would have bottomed out. Liquidity Analytics are endorsing that the global tightening cycle had peaked out in Q4 of 2022. With the culmination of VEP 2018 - 2023, we are launching new cyclically oriented thematic products geared to ride the coming upturn in Indian equities, particularly in sectoral funds.

Extract from our “Being Relevant” book (Jun-2019): 2018-2023 Volatility Expansion Phase

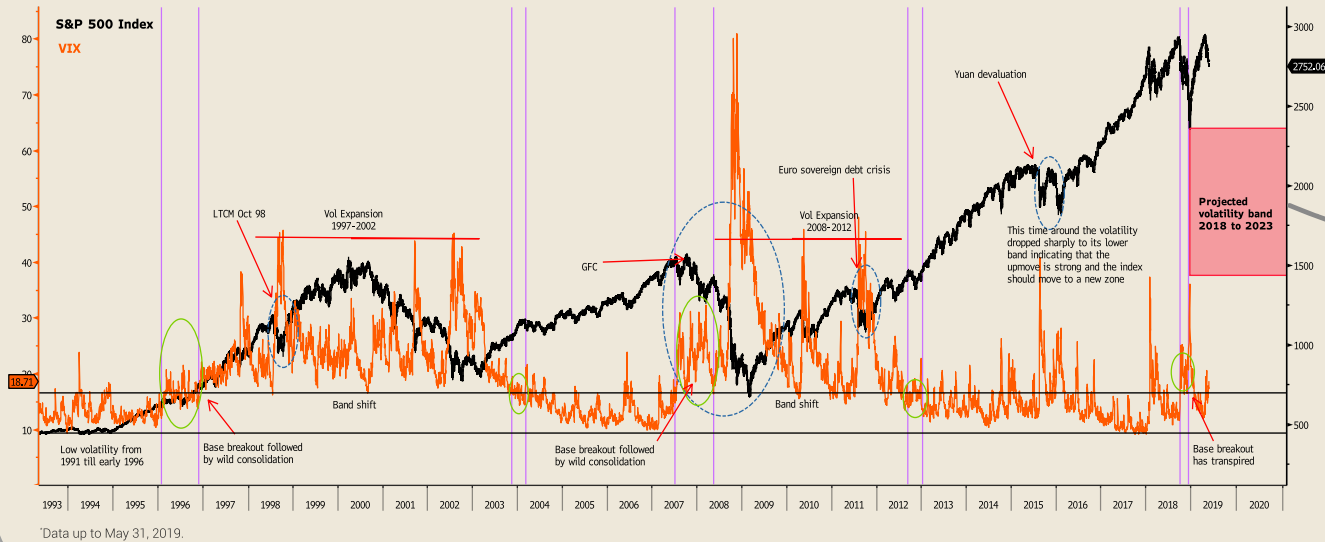
VOLATILITY REGIMES | FUNDAMENTAL SHIFTS IN MARKET STRUCTURE

“When you change the way you look at things, the things you look at change.” – Max Planck

At qGR, we have studied volatility as a distinct asset class for more than a decade, having extensively utilised its signals to safeguard capital during the 2008/09 financial crisis. The extraordinary monetary policies that followed have provided artificial support to investor confidence and as a result, every dip was bought to a new high. However, as Warren Buffet put it, market participants are like Cinderella dancing in the ballroom with all of them planning to leave just before midnight. There’s a small problem: the clocks in the room have no hands.

Beginning with the February 2018 ‘Vixtermination’ event, when the VIX jumped 4 times to 50 in 2 trading sessions, global markets have woken up from their QE-induced lull into a Volatility Expansion Phase (VEP) which started in 2018 and should last till 2023. The combined, multi-lateral effects of **quantitative tightening, rising populism**, growth slowdown due to trade wars, rising geopolitical uncertainty, and the ballooning global pile of credit and leverage, has pushed markets away from the shore into choppy waters. **qGR research suggests a prolonged period of volatility, which based on cycles analytics could last upto 2047 as global markets search for a new equilibrium.**

Paraphrasing from chaos theory: the butterfly has flapped its wings, and the resultant tornado is gaining in strength.



“quantitative tightening”: qGR was early, in 2019, to predict the Fed’s play with words

qGR Cycles Analytics suggests a prolonged period of volatility, which could last upto 2047

“Projected Volatility Band 2018-2023”. In the 2019 book, we had initially decided on the February 2018 Vixtermination event as the beginning of the VEP

Since publishing the research in June, 2019, not just one but multiple tornadoes have occurred.

Although our research had identified the volatility expansion phase, the exact magnitude and sequence of events - Covid pandemic, central bank QE, Russia-Ukraine war, SVB and CS crisis - were certainly not expected, as they cannot be precisely known. This is why qGR Volatility Analytics focuses on volatility regimes and not absolute levels of risk.

The 2018-2023 VEP is now set to culminate with a final expansion.

