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quant®
multi asset, multi manager

Predictive Analytics

Quantifying Fear & Greed

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

quant Mutual Fund's 2023 global outlook – Making sense of current volatility

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

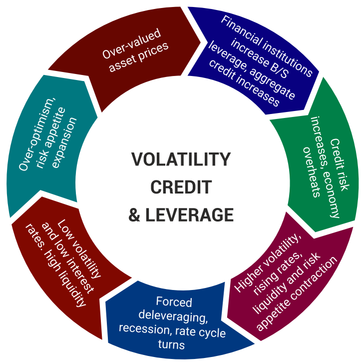
Portfolio managers' performance is heavily influenced by asset price volatility. Gradual changes in volatility generally have little impact on portfolio returns, but sharp swings can be challenging. Behavioural factors such as anxiety and fear can also lead to poor investment decisions during volatile periods. Over-diversification may not provide adequate protection in a volatile market, as prices across different sectors and stocks can be impacted simultaneously.

For us, volatility is more than just a risk indicator or statistical measure. It represents a deviation of market participants' perceptions from reality, providing valuable information about market trends by measuring the difference between actual risk premium and what the market is pricing in. Understanding the effects of market volatility on the real economy helps us identify inflection points, leading to improved portfolio returns through rotation in sectors and stocks.

We aim to take advantage of these deviations through our VLRT framework and Adaptive Asset Allocation methodology. At quant Global Research (qGR), we believe that accurately forecasting volatility is crucial for preserving portfolio returns and capital. qGR has spent over a decade studying market volatility, and we leveraged this knowledge during multiple financial crises to protect our clients' assets. By using a proprietary set of analytical tools, applied alongside fundamental valuation principles and game theory analysis, we seek to turn variations in systematic risk into alpha over a period of time.

Volatility, credit and leverage: The trinity that moves the market's Invisible Hand

“Learn how to see. Realise that everything connects to everything else.” — Leonardo Da Vinci



qGR research on historical patterns, systemic analysis of the modern financial system, and the influence of collective investor behaviour on market structure, reveals that the most interesting periods are of low volatility. By increasing complacency, economic agents display increasingly risk-seeking behaviour that inflates asset values and consequently, expand credit and leverage as they are a function of collateral values.

This feedback loop pushes markets higher until they don’t and the Minsky moment arrives – the last sand particle that creates a mini avalanche in the pile.

With the help of our Predictive Analytics tools, we can quantify “Known risk,” but unknown risks or event driven risks can’t be quantified as such, although one can still reduce the impact of such risks by taking appropriate steps in re-balancing portfolio allocation dynamically.

Volatility Expansion Phase could end in 2023

Since 2017, our qGR Predictive Analytics models have been showcasing a Volatility Expansion Phase (VEP) between 2018 and 2023 when implied volatility of global asset classes will remain elevated. 2018 was the beginning of this VEP and 2023 will be a climactic phase of VEP. As per our volatility band thesis, which quantifies volatility expansion and compression, the largest spike in volatility will be in the climactic phase, i.e. in 2023. **Thus, the implied volatility of global equity markets will be higher in 2023 than the implied global equity volatility in 2022**. As a corollary, however, the volatility band may very well shift downwards after this phase of expansion, turning in to a phase of volatility compression.

Market narrative versus quantifiable data
Illusion or delusion?

We seem to be living in times rather unpleasant. Macroeconomic data showcases that since the challenging days of covid-19, the global economy, led by the U.S., has been under steady pressure of high inflation and retarding growth, driven by geopolitical stresses of broken supply chains and economic & currency wars. Economies are under pressure and barely being able to avoid a perceived or real recession, even as inflation has subsided from intensely high levels seen across the world in 2022. Data showcases this to be true of DMs and large segments of EMs. However, in this era of data-driven approach there are some things, which stand out which should give us reason pause and rethink...

Connecting the dots for 2023 via Predictive Analytics

1. Our Predictive Analytics models are showcasing that the world liquidity indicators are bottoming out and quantitative tightening (QT) cycle has peaked out in Q4 2022. Hence, we conclude that rising interest rate cycle in U.S. 10 year Treasury note has already peaked out in Oct-2022, both from near-term and medium-term perspective. Although the headline noise (Narrative) related to QT continues, the effective QT policy is getting diluted (Hard fact).

2. At qGR, our Predictive Analytics models showcases that the U.S. 10 year yield has formed multi-decade bottom in March, 2020. We believe that we will not see those levels again in our lifetime. Currently, the U.S. treasury yields are softening cyclically, but we see them hardening structurally.

3. At qGR, we believe that an economic trough has been reached and economic activity will gather momentum in 2023. The current year will not be as bad as 2022 for global asset classes because of the bottoming out of liquidity cycle.

4. People's Bank of China (PBoC) has started easing. It has injected the largest liquidity booster (More than RMB 1.8 trillion in Q4 2022) in its market since 2020 as the domestic economy remains weak due to prolonged covid lockdowns. World economic activity will recover because of China re-opening and easing liquidity conditions by PBoC. This will be a boost for global commodity markets.

5. Liquidity cycle has started showing early signs of gathering momentum and this will propel asset classes

higher and rising liquidity and risk appetite will expand valuation multiples. However, high frequency economic indicators are pointing towards an economic recession in select Developed Markets (DMs) and more particularly in Europe. Global business sentiments are equally weak and hence earnings cycle will take time to recover.

6. Rising liquidity and risk appetite in select markets or regions means relatively strong gains in 2023 vs. 2022. Both global equity and global bonds (Sovereigns) at aggregate levels maybe largely range bound in 2023 with select markets, i.e. China, Hong Kong, Taiwan, Australia, South Korea, India and South Africa delivering superior returns in 2023.

7. Emerging Markets (EMs) liquidity will strongly rebound in 2023, because of declining DXY (U.S. Dollar Index) and further policy easing from the biggest liquidity provider, i.e. China. Thus, China's re-opening, a declining USD and rising commodity markets will support EM Central Banks in reducing interest rates and easing monetary policy if local data corroborates the same.

8. Overall, our indicators are endorsing that economic momentum will pick up in 2023 and by the second half of the year, global asset markets should be propelled to a higher level. While media narrative is still very pessimistic, qGR's data analytics are showing a different picture.

9. The current decade belongs to Asia Centric EMs and India in particular. Therefore, EMs will outperform DMs and the Value theme will outperform the theme of Growth. Long-term trends (One decade) are identified via Liquidity Appetite Analytics, Risk Appetite Analytics and Perception Analytics. The Risk Appetite indicators for DMs have peaked out in 2021 while the same for EMs are still lower. Therefore, liquidity will shift from high risk zones to low risk zones and EMs are part of Value basket among global asset allocators.

10. The cycle of Growth investment theme peaked out in September to October of 2021 and therefore, quant Mutual Fund launched its "quant Value Fund" in November 2021. So far, we have only seen one year of outperformance. Value outperformance cycle has just started – it has many more legs to go, but no move will be linear.

11. Since Nifty components are largely growth stocks, Nifty 50 will underperform Nifty Value Index and other small cap and mid cap indices – not only in 2023 but also in this decade. The Indian manufacturing sector will be our big call for the decade.

12. Our Predictive Analytics models are showcasing that the metal sector will be a surprise element for 2023 and we continue to remain overweight in banks (PSU banks in particular), power and infrastructure sector in general.

13. In the month of October 2022, our Predictive Analytics had endorsed a positive outlook for precious metals. Therefore, we since increased the exposure to Gold ETFs in our Multi Asset scheme and we shall remain constructive on precious metals in 2023.

14. In the last one month, our indicators for Risk Appetite as well as Liquidity parameters for India have declined. Therefore, as part of our dynamic money management, we have rebalanced our portfolio, keeping in mind the changing and evolving data points.

15. The recent bout of volatility in Indian equity markets has led to a capitulative move in many heavyweights. The quant Fear Indicator for Bank Nifty has spiked significantly, which proffers good opportunities in both private and public sector banks within the universe of Nifty 500 stocks.

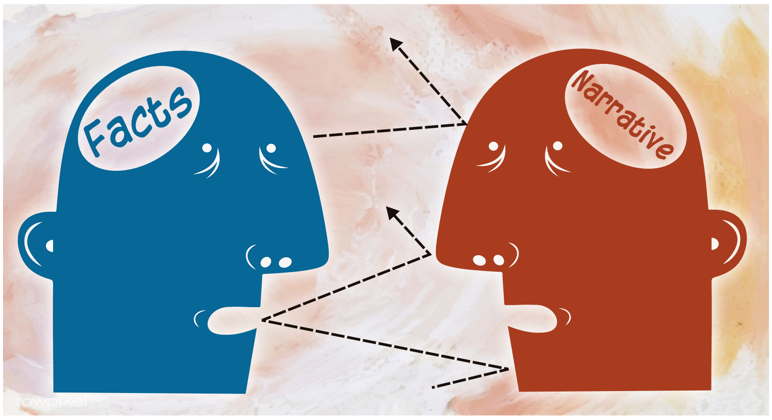
Our read on the 2023 Budget: Build, boost and balance

The Finance Minister of India has presented a credible budget with dual focus on higher capex spending and fiscal consolidation, while avoiding populism, adhering to the restrictions of the upcoming general elections. The capex-to-GDP ratio has further gone up to 3.3% of GDP from 2.7% in FY23RE, and is almost double that of pre-pandemic levels. Capex outlay of INR 10tn is up 33% from last year.

Announcements such as those of 100 critical transport infrastructure projects, infra spending for ports, coal, steel, fertilizer, and food grains sectors, 50 additional airports, heliports, water aerodromes and advance landing grounds are all set to structurally reduce logistics cost of the manufacturing sector. INR 390bn foregone in income tax revenue has been designed to assist particularly the lower spectrum of wage earners, thus giving a benefit to rural and semi-urban consumption.

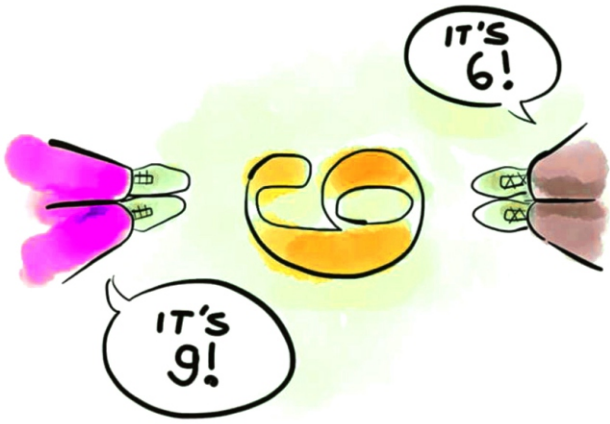
qGR Perception Analytics

"I would not have seen it if I had not believed it." – Marshall McLuhan



At any given point in time, there will be millions of data points about an individual stock, sector, or the market as a whole. Some will be positive, while others negative. As more and more data becomes negative, our human biases projects negativity and at any point in time our biases dictate what we see. Our natural tendency, for any new incoming information, is to establish links and patterns in it to aid in processing. The problem is that because our brain is designed to establish links, it insists on finding patterns whether they actually exist or not. Confirmation bias causes us to only look for data to support the conclusions we've subconsciously already arrived at.

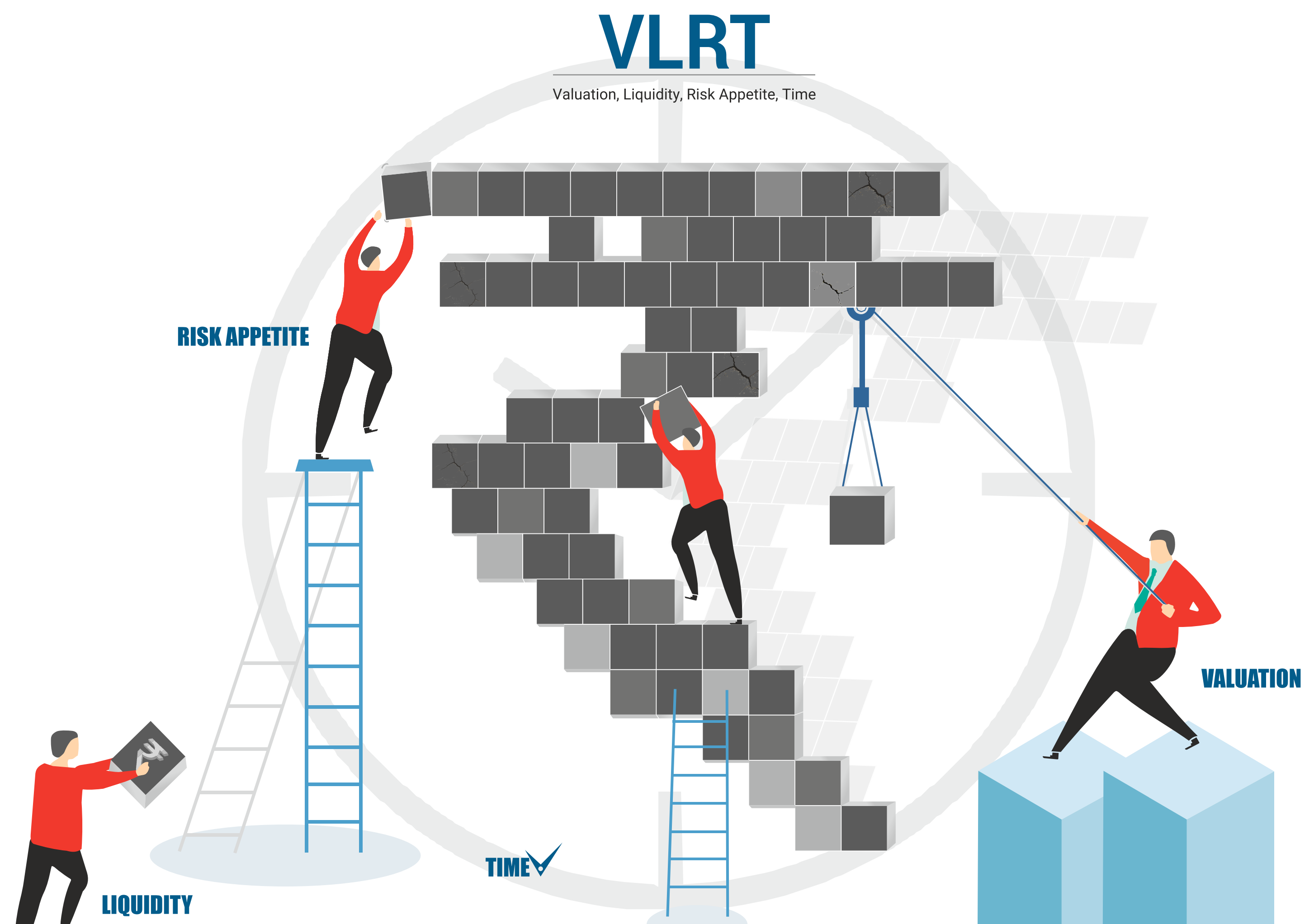
When under pressure with anxiety and negativity, human beings develop biases and exhibit lesser coherence and rationality, particularly over shorter time intervals. **Concepts such as price momentum and herding behaviour should not exist in a vast, open market with rational participants. But they do exist, and will continue to exist as long as investors seek to "Beat the market" by reacting quicker than the crowd to unfolding events. Therefore, as inflection point strategists, we at quant, focus on extreme levels of panic and euphoria in the market in order to identify opportunities.**



According to research on decision making, to maximize predictive accuracy, the final decision should not be left to man alone. At qGR, we believe that our multi-disciplinary and multi-dimensional research coupled with our proprietary VLRT framework is the key to making decisions under uncertainty. **Understanding how to recognize overreaction to unfolding events and how to take advantage of the opportunities that it creates, is what separates the winners from the losers.** Such a strategy that is dependent on multiple parameters has a higher chance of leading to successful results.

Your evaluation is based on the next 30 seconds. Go!

qGR's VLRT framework| the 4 elements in motion |dynamic risk mitigation via effective market timings



DYNAMIC REBALANCING

quant Mutual Fund

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