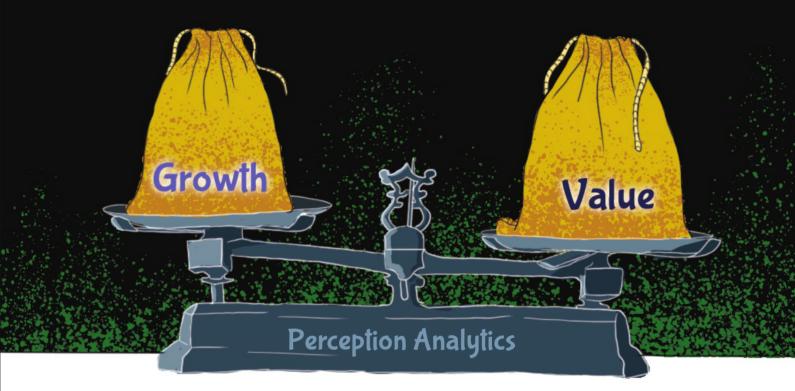


Predictive Analytics

Quantifying Fear & Greed

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



quant's Global Market Outlook – powered by quant Perception Indicators

"A reliable way to make people believe in falsehoods is frequent repetition, because familiarity is not easily distinguished from truth" — Daniel Kahneman

An image that some perceive as a young women, others see the grumpy man. It isn't one or the other, but rather, both, depending on the observer's bias.

CAI M YOUNG WOMAN



What do you see in the adjoining picture?

A calm young woman or a grumpy old man?

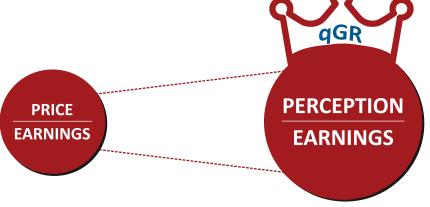


Given the level of information overload we experience, at any given point in time, there are thousands, if not millions, of data points about an individual stock, sector, or the market as a whole. Some will be positive while others negative. What is positive and what is negative is merely a matter of Perception. It is our biases that dictate how we perceive these data points; more often than not, we fail to acknowledge this fact and believe ourselves to be rational decision makers. As an example, concepts like price momentum, herding behaviour, influencers, opinion makers and asset bubbles are things that should not exist in a vast, open market with rational participants. But they do exist and shall continue to exist! The

fact of the matter is that it is our Perception and common knowledge that we use to draw conclusions and not rationality. Everyone thinks of a solution based on what everyone else might have thought. And when things go south, it is always the other analyst or the other portfolio manager who exhibits biases, and never us.

In economics, we say that Price is nothing but an equilibrium point where demand meets supply. However, this then poses the question what determines demand/supply? The answer lies primarily in the notion of 'Perception' along with other behavioral indicators. It is what is perceived of a particular asset class/sector/stock that determines its demand/supply. The key is not to get distracted by the popular narrative that is being propelled in the market to be the gospel truth. quant Perception Analytics is our endeavor to decipher the true stature of the market; this tool enables us to determine an appropriate perceived valuation multiple of a liquid & traded classes/sectors/stocks.

In the last 30 years that I've been working in the financial markets, I cannot recall coming across a research report that forecasts Valuation Multiples in a systematic manner as the case is with forecasted earnings, revenues or cashflow. More often than not, analysts adjust valuation multiples such as P/E, EV/EBITDA, P/S, EV/FCF etc. simply to justify their price targets as everyone gets carried away with momentum. Valuation Multiples are nothing but a balancing factor for them. Perception Analytics is our endeavour to overcome this barrier. At quant Global Research (qGR), the research wing of quant Mutual Fund, our focus is to draw inference from 'Market Implied' data as opposed to an assumptions based analysis. We have developed indicators that have been back-tested with data going back at least 20 years for India and about 60-90 years for the US. Using Perception Analytics and a few other behavioral indicators, the next few paragraphs look at demystifying the present juncture and next leg of the global financial markets.



Global economies & equities are at Euphoric levels

quant's Behavioral Indicators (including our Perception Indicator) for global economies are lingering at decade-high levels. This not only underpins euphoria in the market but also brings forth extraordinary complacency in global equities. If we look at these indicators individually, euphoria is more vivid for growth stocks as compared to value stocks. These euphoric levels are not only life-time highs but there are unprecedented spikes in our indicators, something I have seldom seen in my last 30 years.

The sharp spikes can be explained by the fact that most of the indicators collapsed to multi-decade lows in March 2020, perpetrated by the Covid-19 pandemic. Since then, they have rallied to their lifetime highs in merely 15-18 months. Moreover, multiple global risk appetite indicators collapsed in March 2020 to the levels as low as the Lehman crisis (Global Financial Crisis). These indicators too have recovered sharply largely owing to the astounding liquidity (both good and bad liquidity). Rising risk appetite coupled with rising liquidity is a lethal combination for the bull-run that we have

experienced; the foundation for this lethal run in global equities can be traced back to March 2020.

While the overall liquidity levels still remain elevated, in the last few months the growth in liquidity has significantly declined, particularly in Asia and the Eurozone. The chorus with regards to tapering by central banks has also started to gain consensus. In fact, a silent tapering already seems to be well underway. The impact of declining liquidity has always been felt by the markets with a lag of a few quarters. This time we see no reasons for things to be any different. The global high frequency economic data has also started deteriorating across the globe with the exception of US. However, the quant Complacency Indicator for US equities is at a life-time high, thus, vulnerability of US equities is equally high. This data point is the most alarming when looking at global equities, Developed Markets (DMs) in particular.

Easy phase of the equity Bull Run about to end

Coming back to liquidity, declining liquidity combined with weakening trends in risk appetite for various economies clearly highlights that the easy phase of the global equity Bull Run is nearing its end. Going forward, we foresee a difficult and non-linear Run in the markets. This does not come as a surprise to us, since 2017 we have been highlighting that the global markets will remain in a Volatility Expansion Phase (VEP) between 2018-2023. qGR's Predictive Analytics models further suggest an elongated period of volatility, which based on cycles analytics could last up to 2047 as global markets search for a new equilibrium. During this phase, the Dynamic Way of Money Management will enable us to navigate through bouts of heightened volatility. A multi-disciplinary and multi-dimensional research coupled with our novel VLRT Investment framework is the key to making decisions under uncertainty. Any strategy dependent on a single parameter may lead to "disastrous" results.

Value stocks set to become the new Growth stocks?



Over the past few years, the discourse surrounding 'Growth vs. Value' has grown at a very rapid pace. But how do we distinguish between these two notions? The answer lies in perception analytics. In the past decade, it is the growth stocks that have outperformed while

value stocks have been relative laggards. Will this trend continue going forward? Many market pundits think so. However, reality is not always what it seems! Using perceived valuation analytics we can see that the rally in growth stocks is nearing its peak. A slowdown in Growth stocks will undoubtedly have a cascading effect. However, going forward, we see the value stocks picking up steam to rebalance the disparity between the two categories created in the past decade. Even when we look at the market implied valuation of stocks in the 'Most Admired' category vs. stocks in the 'Most Neglected' category, we foresee the latter to be at the forefront in both, the near future as well as the medium-term.

The 'Perception Indicator' for Nasdaq & other global technology indices, the flag bearers of growth stocks for the past decade, have seen euphoric moves in the last one year; these technology stocks seem to be on the last leg of expansion in their valuation multiples. qGR believes that with the nearing end of an up move in technology stocks, the perception surrounding the story of Growth stocks is peaking out. Our 'Perception Indicator' does not predict the peak/trough of price or earnings, all it does is that it effectively captures the perceived valuation multiples of stocks. This adds further weight to our thesis of value stocks gaining momentum. We do see the performance of growth stocks to continue, however, they shall only be market performers and not outperformers. On the other hand, from a medium term perspective, value stocks which have so far traded in the neglected will be the market outperformers. Going forward, growth stocks, with the exception of semiconductors, EVs, green energy, will see downgrading in their valuation multiples. A re-rerating of value stocks will also occur, albeit with a lag effect.

In the aforementioned instances, the peaking characteristic of our 'Perception Indicator' indicates the probability of a trend reversal in the perceived valuation of stocks. Hence, a very important indicator in qGR's Predictive Analytics Framework.



EMs still attractive when compared to Dms

Overall, we believe Emerging Market (EM) equities still look constructive. Nonetheless, a pullback in the near-term is not off the cards. The pullback can primarily be attributed to the softening of global economies, particularly China, which has accounted for about a third of global GDP in the last decade. This is strongly complemented by our Money Flow Analysis which foresees money shifting base from DMs to Asia-centric EMs, India in particular, since risk appetite indicators for the latter category are lower when compared to DMs. qGR continues to

believe that DXY will weaken in the medium-term; the real weakness will come to the fore from the second half of 2022. Going forward, Asian currencies will be a lot more stable as evidenced by the stability in Yuan during the last one year. At an aggregate level, this further adds weight to our thesis of a comeback of Value stocks; hence, the EM outperformance story shall unfold.

Our Way Forward – guided by Predictive Analytics

Given that global economic momentum indicators are deteriorating in the last few months, this will in-turn affect the financial health of majority of the economies, albeit with a lag effect. When this deterioration is coupled with our Behavioral indicators, our Predictive Analytics endorses a spike in volatility indices in the next few weeks, VIX in particular. This will not only affect US equities but have a snowball effect on the global financial markets in the near-term. In India, the 'Euphoria Indicator' for large cap companies has started spiking in the last few trading sessions; participants that were on the fence have thus been forced into actively participating in the market. Given the global background, we have revamped our portfolio by increasing the weightage of Value & Defensive stocks as compared to Growth stocks & stocks from the Admired Category. This by no means implies that value stocks are the only ones to own. In fact we strongly believe that a healthy balance between growth and value stocks is imperative for a stable portfolio.

Adaptive Money Management | VLRT framework

Being Relevant with 'predictive analytics'

The core engine that drives us and sets us apart is a robust and differentiated investment framework that enables us to see beyond the horizon and stay relevant. Our unique analytical framework for enabling 'Predictive Analytics' encompasses all available asset classes and sectors, formulating a multi-dimensional research perspective.

Why multi-dimensional?

The markets are a complex, dynamic system. There is no one formula or strategy or perspective that can consistently outperform. A diverse set of variables and participants are continuously interacting with each other in myriad ways.

In the face of this uncertainty and complexity, instead of limiting ourselves to any one school of thought, we have found consistent success by studying markets along four dimensions:

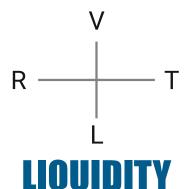
Valuation, Liquidity, Risk Appetite and Timing (VLRT)

VALUATION

Knowing the difference between price and value

RISK APPETITE

Perceiving what drives market participants to certain actions and reactions



TIMING

Being in sync with the waves of value and behaviour

Understanding the flow of money across asset classes

quant Mutual Fund

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