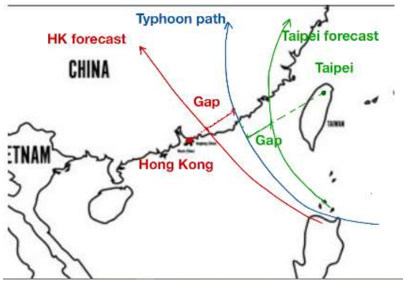
AlphaBets – January 2019

'We must base our asset allocation not on the probabilities of choosing the right allocation, but on the *consequences of choosing the wrong allocation*.'

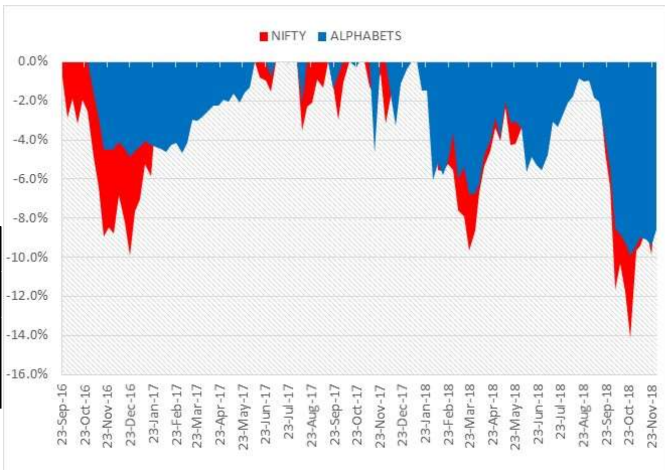
Jack Bogle



Typhoon forecasters in different cities tend to overestimate the storm's track over their own city.[1] This is because the cost of wrong forecasting is more for hits than for misses. As you can see in the graphic on the left, the actual path of a typhoon is show in blue and the green and red and lines show the path forecast by forecasters in Hongkong and Taipei. The consequences of being wrong if the typhoon actually hits either of those cities is very high so the city meteorological department will choose to be conservative and err on the side of caution. However, there is a limit to which you can "cry wolf" and therefore it cant be done all the time. Similarly, in investing, you have to be slightly biased in your asset allocation based on the consequences of being wrong in your asset allocation when a severe down trend or bear market comes, and one is over exposed to equities. It is a fine line because one can't be overly pessimistic all the time. And that is why we believe a systematic process helps us execute better and limit the impact of human emotion in investing.

This was the year where the importance of asset allocation was underscored. While mid and small caps indexes were down for the year, large cap index ended the year in positive territory. More on that later. We have gradually moved into cash through the year, which is our largest position now, and therefore didn't participate in the down trend in midcaps and we continue to hold some large cap names and of course cash. Our stated principle is to outperform our benchmark - Nifty on both the upside and down side. We have managed to still out do the Nifty on the downside more than it has managed to out do us on the upside. Ideally, we would have liked to outperform on the upside too. The performance from inception to Dec 2018 is given below.

	Return[2]	Max Drawdown
AlphaBets	10.1% p.a.	9.4%
Nifty 50	11.1% p.a.	14.1%
Nifty Midcap	12.4% p.a.	22.7%



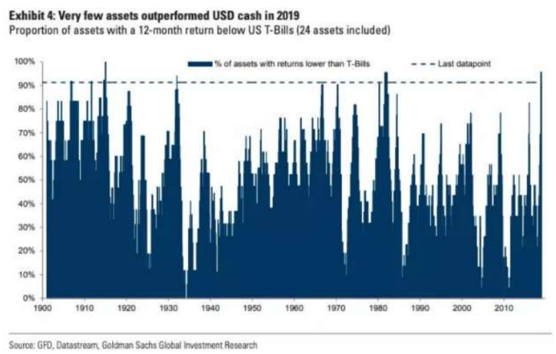
[1] Identifying Strategic Weather Forecast Bias:

[2] Annualised return for live client account post fees and expenses since inception i.e. July 2016 to December 2018

It’s been that sort of a year where nothing much happened at the index level but if you scratch below the surface some interesting facts emerge. In CY 2018, Nifty 50 saw a gain of **3.9%** at the index level but the average nifty stock saw decline of **4.9%** and underperformed the index by almost **900 bps**. Contrast that with 2017 where the index was up **30%** and average stock outperformed the index by **800 bps** and both were in positive territory. This tells us that index has been in positive with just a few stocks accounting for its gain. In fact, the top 4 stocks account for most of the gains in 2018.

	2017	2018
Nifty 50 Stocks		
- Mean	38.4%	**-4.9%**
- Median	33.7%	**-5.1%**
Nifty 50	30%	3.9%

In mid-caps the trend is clear where the index is down 14%. Hence this year was the year of capital preservation. Our cash position gives us significant dry powder to deploy if the opportunity presents itself, in the next 6-12 months. This means that this fiscal year ending March 2019 neither you are likely going to make any major gains and neither are we going to make any performance fees. That’s the model we have signed up for. Our interests are therefore fully aligned with yours.



As the graphic on the left above shows, this year cash was king. 90% of assets underperformed cash in 2018. The last time one saw such a situation was in 1980. The graphic on the right[3] above show the extent of underperformance of other asset classes. Stocks underperformed cash by 10%, commodities by 12% and oil by 22%. This shows how much of an outlier this year was. And also gives us confidence in our systematic investing process which gradually got us into cash over the year.

[3] Source: NDTV

Next six months

Larry Summers, former US Treasury Secretary and former President of Harvard University, researched[4] the one hundred daily market moves and was able to connect newsworthy events to only 40% of them. In other words, more than half of the largest market moves occurred without some corresponding information causes. So much for efficient markets in which prices move to factor in all available information. So the next time you go looking for explanations for market movements on your favourite business news channel, expect to be wrong 60% of the time. That kind of error rate won't be tolerated in any business.

State elections which were touted to be the semi-finals, for the 2019 Lok Sabha or central elections, went on expected lines in most states. And to no one's surprise populism and anti-incumbency is still a thing. However, let me tell you irrespective of who wins in 2019, markets in the long term will only react to earnings, liquidity and performance of the underlying economy. We have seen this in 2004, 2009, 2014 and all other elections years before those. While I can't tell you, who is going to win in 2019, however, I can safely predict that reams of newsprint and online articles will devote space on how to navigate the next six months. My advice for 2019 would be to tune the noise out or take a long sabbatical from consuming news. It will keep you healthy, wealthy and wise.

In the next section we present a short introduction to momentum investing.

Warm regards

Anish Teli

QED Capital
Mumbai, India
11th January 2019

[4] What Moves Stock Prices? David M. Cutler, James M. Poterba, Lawrence H. Summers

Momentum 101

"Imagine how much harder physics would be if electrons had feelings." – Richard Feynman

Many scientists and mathematicians have tried to boil down the market's performance to a equation or model borrowed from physics. But markets are messy like human beings. The more precise the model, and better is has worked in the past, the higher the likelihood that it may fail in the future. But concepts can be applied. Markets are like biological environments. They evolve, adapt, mutate and change character over time. So, we must step away from Newton's world and step into Darwin's world.

Today we are familiar with clinical trials, experiments in-vivo, in-vitro and so many other forms of research in the field of medicine which is what investing is to markets. However, it may surprise you to know that until the 20th century these were still held in doubt. "Is the application of the numerical method to the subject-matter of medicine a trivial and time-wasting ingenuity as some hold or is it an important stage in the development of our art," the Lancet asked in 1921[5]. The answer ultimately came from statistics. Now it is not a perfect solution but it better than and objective than wise men sitting and arguing their beliefs and views. Price movements in the market can also be viewed through similar statistical processes. It may not explain all movements, but certain repeatable patterns emerge.

"There are patterns in average stock returns that are considered anomalies because they are not explained by the Capital Asset Pricing Model…The premier anomaly is momentum."[6]

Eugene Fama and Kenneth French

The term "Momentum" in usually associated by most market participants with punting or gambling. Nothing could be further from the truth.

Let us look at the behavioural explanations for value and momentum.

"Value is the tendency for relatively cheap assets to outperform relatively expensive ones. These securities can outperform as some investors either overlook cheap securities in favour of growth/glamor securities or are averse to bearing the risk associated with distressed assets."[7]

"Momentum is the tendency for investments that have recently performed well (or poorly) relative to other investments to continue performing well (or poorly) over the near term. It may be explained by investors' initial under-reaction to news, subsequent overreaction, and behavioural biases like the disposition effect (i.e. investors' tendency to prematurely sell winners and hold on to losers for too long). These biases extend

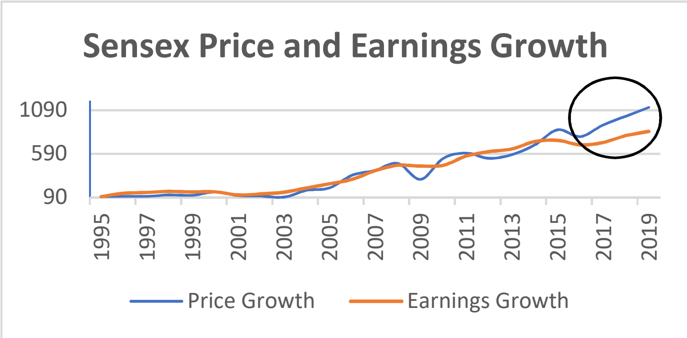
[5] Super-Forecasting: The Art and Science of Prediction by Philip Tetlock and Dan Gardner
[6] Dissecting Anomalies by Eugene Fama and Kenneth French
[7] Source: AQR - Understanding Alternative Risk Premia

price continuation, or trends, rather than prices "jumping" to fair value immediately. An example of a momentum measure is the trailing one-year price return of an asset relative to the market."[8]

It is also commonly mistaken that momentum investing is all growth investing, however that is not true.[9] Momentum investor's stock universe will have an overlap with the fundamental investor's universe. Buffett, however, would roll his eyes at all these distinctions. In his 1992 letter to shareholders, Buffett suggests that differentiating between value and growth investing is "fuzzy thinking." And the way to distinguish between investing & gambling is based on the intent of the person undertaking the endeavour.

The table below shows that the Sensex price has a standard deviation which is twice that the earnings stream. Therefore, price is more volatile and moves around the earnings trajectory, as shown in

Period 1995-2019	Price	EPS
CAGR %	10.6%	9.3%
Standard Deviation %	30%	14%



the graph, causing periods of under or over valuation. But they move in the same direction and periodically meet. Now look at the current divergence circled in the graph. From 2015-2019 price has diverged away from earnings trajectory. Ultimately the two shall meet. How, where and when we do not know. But we do know over the long run prices are slaves to earnings. Prices are like a dog on a leash who will never be able to deviate from the path of his master beyond a certain distance. Like prices must mean revert to the trajectory of earnings, the dog on a leash will revert back to the path of his master.

Momentum has been around as long as markets and investing have been around. Momentum investing has been covered extensively in academic literature and the seminal paper "Returns to Buying Winners and Selling Losers"[10] was published in 1993 by Profs Narasimhan Jegadeesh and Sheridan Titman in The Journal of Finance. Momentum has however moved beyond academia. One of the largest asset management firms employing momentum and value based quantitative systematic strategies is AQR founded by Clifford Asness and a group of ex-colleagues from Goldman Sachs. AQR currently has $226 bn AUM.

In our next letter we will come with some interesting analogies between sports and investing. We will also provide a paper on a simple and easy to execute momentum strategy. Until then I leave you with the question-Do our sports teams comprise of players who are currently doing well OR of players who have done well in the past but have not performed in the last six to twelve months?

[8] Source: AQR - Understanding Alternative Risk Premia
[9] Quantitative Momentum by Wes Gray and Jack Vogel
[10] Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency