IIFL
Institutional Equities

A post-volatility world?

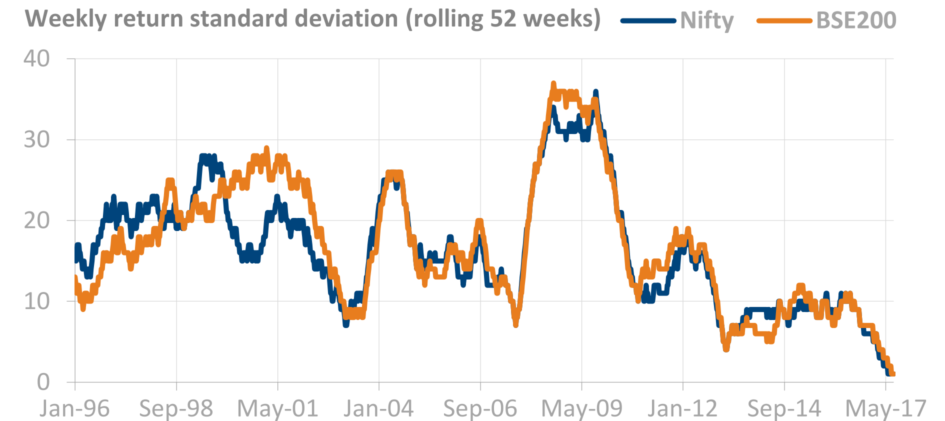
Even as the equity markets scale new peaks, what is notable is that equity market volatility is at its lowest in more than two decades. Continued optimistic expectations on growth despite consistent earnings downgrades in each of the last few years and the gradual unidirectional nature of the market crowding in liquidity are the most likely explanations for the fall in volatility. The key question is not whether volatility will mean-revert but whether the mean reversion will be benign. In our view, this depends on whether the optimistic growth expectations continue or undergo a correction.

A new peak with record low volatility: The benchmark Nifty index scaled a new peak of 10000 last week. Since the February 2016 bottom of ~7000 the Nifty is up over 40%. However, what is unprecedented in this bull market is the sharp fall in volatility. In the past year, there has been just one week when the market moved by more than 3% on a weekly basis. This is the lowest in more than two decades.

Indian economy – continued benefit of doubt: From a top-down perspective, there cannot be a more benign environment for equities with inflation and interest rates at multi-year lows and an extremely stable currency. That said, growth and earnings have continued to disappoint with each of the last few years seeing earnings downgrades. However, despite this, analyst expectations continue to build in strong earnings growth in the following year. Volatility represents uncertainty or shifting of expectations. However, analyst expectations have not 'adapted' and remain stable and strong despite the recent track record.

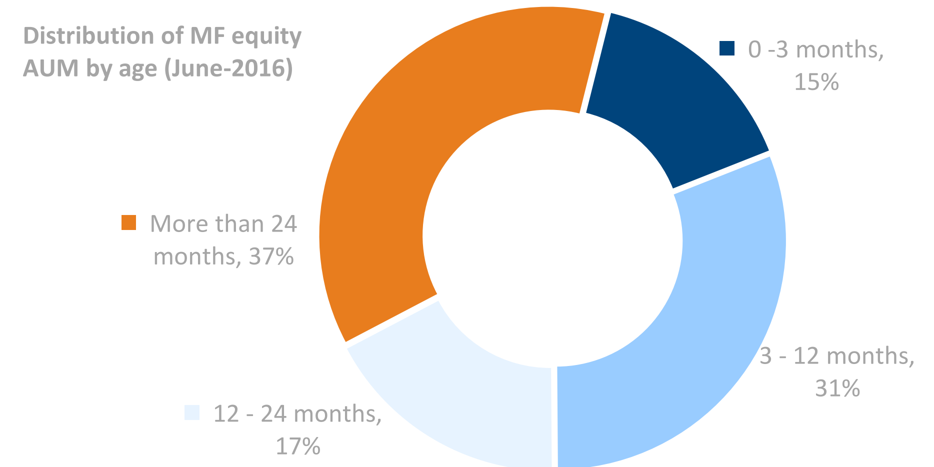
Liquidity and nature of investor expectations: The other factor driving down volatility is liquidity. A stable and unidirectional market creates a certain set of expectations which not surprisingly, leads to crowding in of investor flows. It is worth noting that in the case of domestic mutual funds more than 60% of the equity AUM with domestic mutual funds is currently less than two years old. Therefore, in the short run, other things being equal, low volatility will feed into itself. However, this process cannot continue ad-infinitum because, the longer this process runs, the more it causes risk of receding further into the background.

Past year saw just 1 week where the market moved by more than 3%



Source: CMIE, IIFL Research

More than 60% of equity AUM is less than two years old



Source: AMFI, IIFL Research

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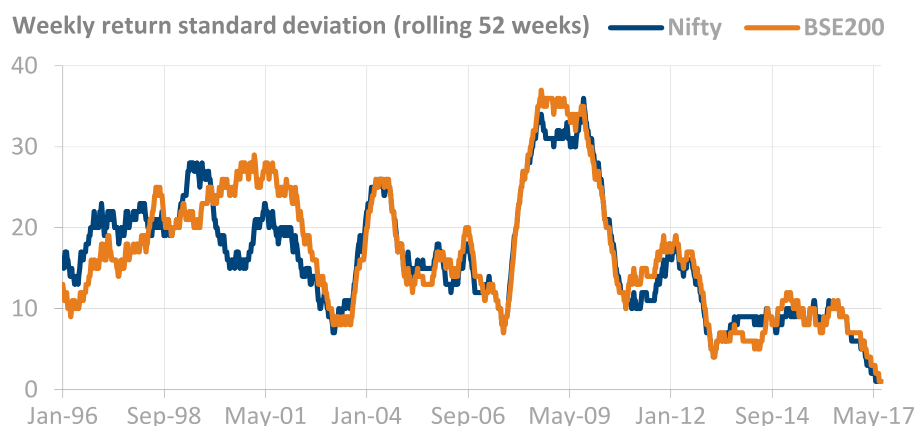
A new peak with record low volatility: The benchmark Nifty index scaled a new peak of 10000 last week. Since the February 2016 bottom of ~7000 the Nifty is up over 40%. We are clearly amidst a strong bull market. However, what is unprecedented in this bull market is the sharp fall in volatility. Volatility is essentially non-existent.

Figure 1: The benchmark Nifty Index crossed a new peak of 10,000 last week

Source: CMIE, IIFL Research

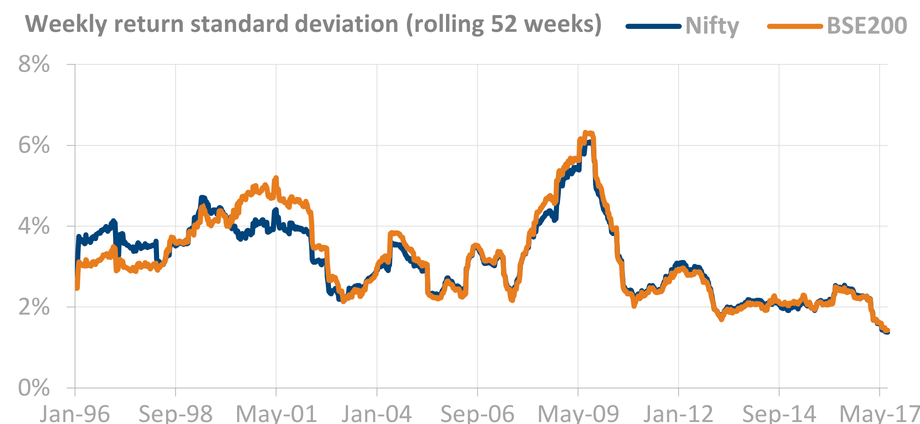
Figure 2: Past year saw just 1 week where the market moved by more than 3%



Source: CMIE, IIFL Research

In the past year, there has been just one week when the market moved by more than 3% on a weekly closing basis. This is the lowest in more than two decades. In the last two decades, on average, the market has moved by more than 3% in a week in 16 of the 52 weeks. The standard deviation of weekly returns for the market was just 1.4% in the preceding 52 weeks, a level not seen in at least the past two decades and less than half the average volatility seen in the preceding two decades.

Figure 3: Market volatility is at historic lows



Source: CMIE, IIFL Research

Before we discuss the reasons for such sharp fall in volatility, a couple of points are worth highlighting.

- Firstly, it is not the case that market volatility necessarily falls in a bull market. In 2007, at the peak of the last bull market, market volatility was twice as much as it is today and more than the average. In 2007 the market moved by more than 3% in 22 of the 52 weeks, which again was more than the average. Even during the bull market of late 1990s, market volatility was higher than average. Therefore, the fall in volatility this time around is atypical of the past bull markets.

- Secondly, it is worth noting that volatility is absent both on the downside as well as upside. Thus, the last 16 months have seen a

relatively modest 40% increase in the market. Towards the end of last two bull markets (2006-07, 1998-99); markets had roughly doubled in this time period. So what characterizes this bull market is a relatively gradual, unidirectional increase in prices (in aggregate).

Figure 4: Volatility has collapsed not just in India…

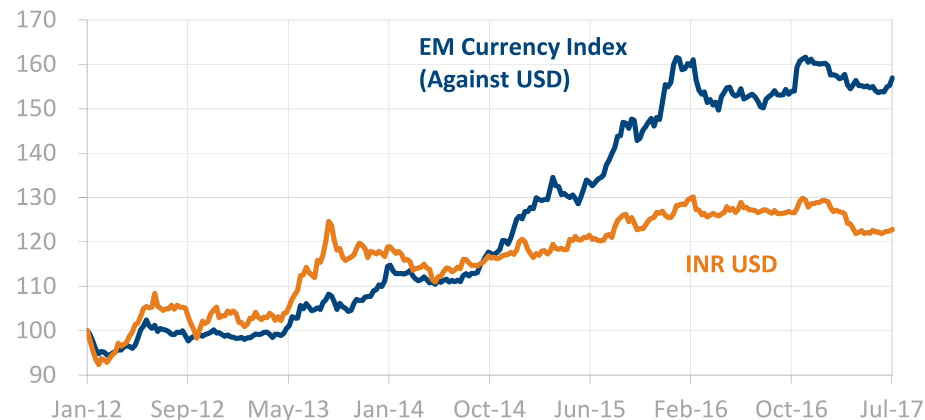
Source: St. Louis Fed, IIFL Research

- Lastly, it is not the case that the fall in volatility is specific to India. For the S&P500 also, for example, current volatility is the lowest in the last two decades. The standard deviation of weekly returns has fallen to just 1.1% currently as against an average of 2.1% in the last two decades. That said the fall in volatility is higher in case of India.

There are two incomplete explanations for this phase of extraordinarily calm markets in our view. The first has to do with the economy and the second with liquidity.

Indian economy – continued benefit of doubt: The Indian economy is going through a period of exceptional macro-economic stability. Inflation has more than halved in the last three years and consequently interest rates have fallen more than 250bps in the same period. The current account is almost in balance now and FDI has increased sharply. The improvement in macro stability is best visualized through outperformance of the Indian rupee. The Indian rupee has outperformed a basket of dozen EM currencies by more than 30% in the last three years, as the chart below shows. From a top-down perspective, there really cannot be a more benign environment for equities and risk taking in general.

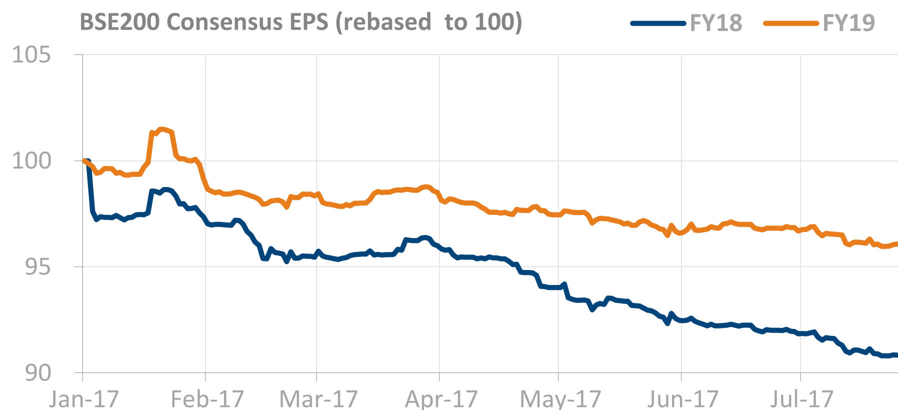
Figure 5: Indian rupee has been among the most stable EM currencies in recent years



Source: Bloomberg, IIFL Research

However, this is an incomplete picture because, when it comes to the factors that the markets care about – growth and earnings, things have not really gone as per the script. Economic growth has trended down in the last few quarters in part due to the impact of demonetisation. There is also the transition to GST, which will dent growth in the near term. Stressed corporate and bank balance sheets have meant that private sector investments have not been forthcoming. All of this reflects in continued downgrades to consensus earnings estimates. Consensus FY18 BSE200 EPS has seen a ~10% downgrade YTD. Even FY19 EPS estimates have seen a ~5% downgrade YTD. More importantly, this is the fifth consecutive year when consensus earnings estimates have seen downgrades. The reasons have been different each year—fall in commodity prices, asset quality pressures with banks, demonetization, and drought. However, the outcome has been the same in each of the past few years when it comes to corporate earnings estimates.

Figure 6: Consensus earnings have continued to see downgrades even in this year

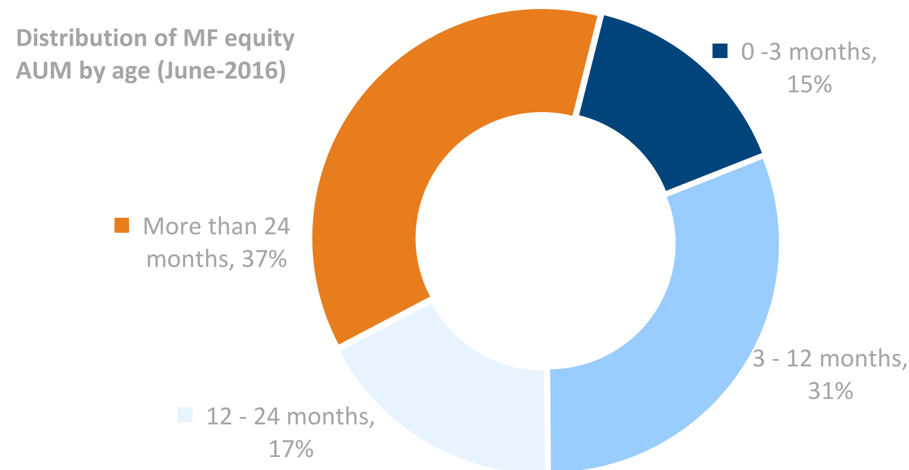


Source: Bloomberg, IIFL Research

And it is despite this consistent miss to earnings estimates that markets have seen a sea of calm, gradually inching up bit by bit. This is because investors have been remarkably indulgent towards Indian stocks. Given successive earnings downgrades in the past few years, one would have expected analysts to turn ultra-conservative and cut their estimates aggressively. However, this has not happened. Despite repeated earnings downgrades, what we see is that earnings estimates at the start of every year are in the high teens. Despite earnings disappointment in each of the last few years, investors and analysts continue to expect the coming year to see strong earnings growth. This explains both the buoyancy in stock prices as well as the remarkable calm of the market.

Expectations drive asset prices and expectations are generally thought to be adaptive. Volatility, in a sense, represents uncertainty or shifting/adjustment of expectations. In the extant case, expectations have not been adaptive. While the purported reason for this is India today stands out as one of the few economies with strong macroeconomic fundamentals, reasonably strong growth, and large, liquid capital markets. The real underlying reason is that analyst forecasts are not made in vacuum. They are made in a context which is the current market backdrop. Analyst estimates are thus not an unbiased predictor of future as they are perceived. Irrespective of the reason however, as long as expectations are strong (and strongly unidirectional in the current case) and they do not change, it is only natural that underlying asset prices remain buoyant and will see limited volatility.

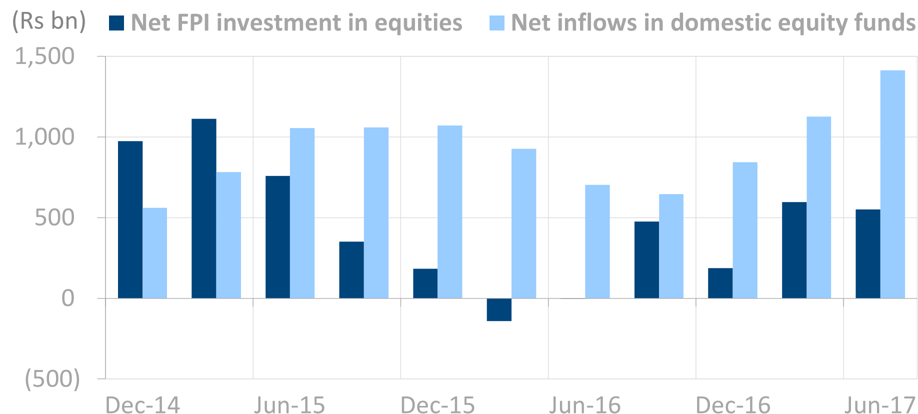
Figure 7: More than 60% of equity AUM is less than two years old



Source: AMFI, IIFL Research

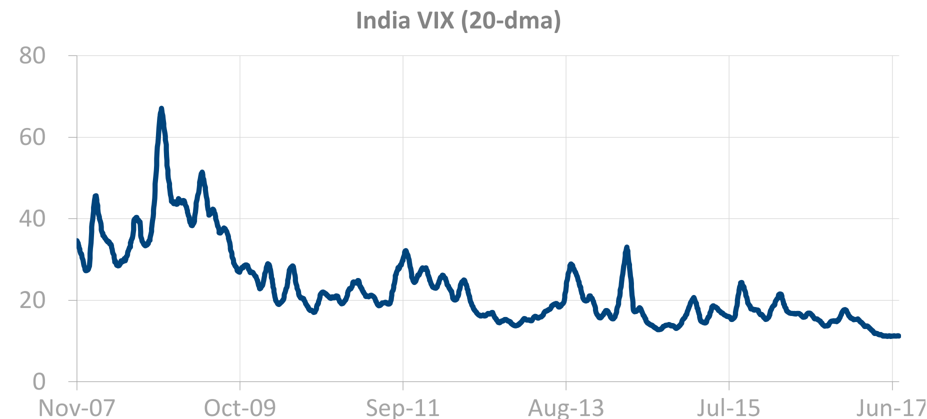
Liquidity and nature of investor expectations: The second factor at play concerns money flows and the nature of investor expectations. Volatility is an imprecise and at times incorrect measure of risk. However, at least in the short term, it is a good proxy for risk because it feeds investor expectations, which are adaptive. A stable and unidirectional market creates a certain set of expectations, which not surprisingly, leads to crowding in of investor flows. It is worth noting that in case of domestic mutual funds more than 60% of the equity AUM is currently less than two years old.

Figure 8: Domestic liquidity has become far more important for stocks than FPIs



Source: CMIE, IIFL Research

Figure 9: Implied volatility in stocks is at a historic low…



Source: NSE, IIFL Research

What investor expectations are thus adapting to currently is that equities as an asset class generates strong, predictable, and linear returns. Therefore, in the short run, other things being equal, low volatility will feed into itself. Other things in terms of expectations on growth or earnings have been equal as discussed above. Hence, the drop in volatility is in a sense self-reinforcing. This is precisely seems to be happening with domestic investors currently. Domestic liquidity now dwarfs FPI liquidity from an equity market perspective. However, this process cannot continue ad-infinitum. This is because, the longer this process runs, the more it causes risk to recede further into the background. This in a sense is the Minsky framework. If we use the VIX as a forward-looking indicator of volatility, it suggests that we are reasonably advanced in this process of lowering risk.

Therefore, will volatility mean-revert? It seems almost trivial to argue that volatility will eventually mean-revert. The real question is when and whether the mean reversion will be benign or not. When we say increase in volatility in a benign manner, we mean stock prices do not see a significant pull back. We envisage three possible scenarios in the near term for this:

- If India's macro fundamentals remain robust, the 'expectation' story continues to be strong or ideally, if we see delivery of the current expectations and if the global environment remains uninspiring, this phase of low volatility and buoyant asset prices might continue for some more time.
- If India's macro fundamentals remain robust, the 'expectation' story continues to be strong or ideally, if we see delivery of the current expectations but if global environment also improves significantly, then volatility could increase but in a relatively benign manner. Indian stock prices may not see a significant pull back in absolute terms.
- Lastly, the not-so-benign case in which volatility will mean-revert is if India's macro fundamentals deteriorate. In particular, if expectations of growth change for the worse. This could either be a consequence of analysts finally throwing in the towel after years of being over-optimistic on earnings or the underlying economic momentum itself worsening. As things stand today this looks a very distant possibility. However, in the euphoria of a bull market, it is very easy to get overconfident and be lulled into a certain thought process. That is the risk and that is how expectations can change.

Disclosure : Published in 2017, © India Infoline Ltd 2017

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