How smart is SMART Beta?

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The investment world is peppered with several different types of jargon, each trying to outdo the other. In this fairly over-populated world, a term that is heard in almost every conversation is 'alpha', defined as returns achieved in excess of the benchmark. Active fund managers work tirelessly to create portfolios that can consistently outperform the benchmark and generate alpha for investors. Having said that, it has been observed that alpha generation is becoming increasingly challenging as portfolio managers struggle to identify the right investments through traditional metrics that follow the capital asset pricing model. As a result, fading alpha is precipitating a sharp shift towards passive investing strategies that basically require fund managers to create portfolios that hug the benchmark. But do investors have to settle for benchmark returns? Or, can passive strategies be further layered to generate some alpha?

Alpha follows Beta, or does it?

While the Greeks tell you that beta always follows alpha, and they are not wrong, we believe that there is a strong case for alpha following SMART beta. Essentially, Smart Beta/Factor/Strategy investing means passive investing along with a quant strategy. Such strategies aim to bring in rule-based active management in a passive strategy and are based on the premise that in passive investing, an added layer of factors can potentially enhance performance.

Smart Beta/Factor/Strategy indices are constructed as a subset of a parent index, where a select factor acts as a filter for the strategy index. For example, in the context of the Indian market, the Nifty 50 would be the parent index while the Nifty 50 Value 20 would be the strategy index where value is used as a factor to filter and select constituents for the strategy index.

Layering with factors

There are a host of factors that can impact the price and consequent performance of an investment. Some of the key factors include quality, volatility, value, momentum, and size. While there are strategy indices and corresponding investment vehicles available for gaining exposure to different types of factor indices, it is important to underscore that not all factor/strategy indices outperform or even match the performance of their parent indices.

In order to identify the factors and the corresponding factor indices that can potentially outperform their parent indices, we did an in-depth study of factor performance in a calendar year and across market cycles.

Market cycle returns and outperformance: Generally, when a market cycle analysis is done, the approach is to bifurcate on the basis of time period. However, we believe that such a study is better done by identifying event or sentiment-based periods. Thus, our market cycle analysis is broken into 7 periods beginning 2007, namely, GFC, post-GFC recovery phase, sideways phase, the midcap bull run, the divergent market phase, Covid and the

subsequent V-shaped recovery, and the geopolitical and QT phase (Refer to Exhibit 1). Our analysis of historical data reveals that Quality, Value, and Momentum consistently appear as the best performing factors.

Exhibit 1: Factor outperformance across market cycles

Smart Beta Strategy	GFC	Recovery	Sideways	Midcap Bull Run	Divergent Market	Covid V shaped Recovery	Geo-polictical & QT
	31-12-2007 31-03-2009	31-03-2009 31-10-2010	31-12-2010 31-12-2013	31-12-2013 31-12-2017	31-12-2017 31-12-2019	31-12-2019 31-12-2021	31-12-2021 30-09-2022
Alpha	-13.8%	-3.1%	6.6%	7.8%	-3.7%	34.9%	-14.8%
Equal Weight	-1.0%	20.4%	-1.3%	1.6%	-9.5%	5.2%	2.0%
Momentum	-1.2%	-6.2%	10.6%	10.3%	-0.5%	13.5%	-3.2%
Quality	10.9%	18.4%	8.8%	1.5%	-0.3%	0.3%	-2.1%
Size	-0.1%	-7.8%	-3.5%	-3.1%	-2.3%	-3.0%	-3.8%
Value	10.3%	17.9%	2.9%	-2.3%	-7.3%	6.1%	10.0%
Volatility	8.6%	-1.9%	6.9%	6.0%	-0.7%	1.8%	-1.4%
Best Performing Factor	Quality, Value, Volatility	Equal Weight, Quality, Value	Momentum, Quality	Momemtum	Momentum, Quality, Volatility	Alpha	Value
Worst Performing Factor	Alpha	Momentum, Size	Equal Weight, Size	Size, Value	Equal Weight, Value	Size	Alpha

Calendar year returns: In order to offer a holistic and unbiased view, we also analysed the performance of factor indices for each calendar year in the period 2008-2022. Our analysis of historical data revealed that the Momentum factor has consistently reported relatively higher returns, followed by Quality and Volatility.

Exhibit 2: Factor performance across calendar years in the period 2008-2022

Factor	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Alpha	-73.5%	88.0%	18.1%	-20.7%	52.5%	3.6%	69.3%	15.3%	-9.1%	69.8%	-13.6%	7.8%	52.7%	75.4%	-13.5%
Equal Weight	-51.6%	110.7%	17.2%	-27.3%	35.8%	4.2%	38.6%	-2.5%	7.1%	31.9%	-6.5%	3.9%	18.4%	34.5%	5.2%
Momentum	-62.6%	78.6%	25.5%	-16.7%	47.2%	12.7%	62.6%	14.2%	7.8%	65.8%	-9.3%	8.1%	23.4%	66.1%	-2.6%
Quality	-50.5%	126.3%	29.7%	-15.2%	30.8%	17.0%	46.7%	6.2%	5.2%	37.0%	0.5%	4.8%	25.5%	26.5%	-0.3%
Size	-65.3%	108.3%	13.6%	-36.2%	38.4%	-4.7%	53.6%	6.2%	7.9%	52.6%	-17.5%	-5.1%	24.0%	44.4%	-3.5%
Value	-49.0%	94.3%	32.6%	-16.8%	30.5%	4.7%	37.1%	-10.2%	11.1%	35.6%	-5.0%	0.7%	19.0%	42.8%	10.9%
Volatility	-42.3%	92.9%	25.5%	-12.0%	32.1%	8.8%	39.9%	11.7%	3.8%	30.3%	8.0%	5.2%	25.6%	21.8%	3.2%
# Investible Funds/ETFs	1	1	1	2	2	2	3	5	7	9	10	10	11	20	50

Do factor indices offer the premia they promise?

Based on the preliminary analysis, we have identified volatility, value, and quality to be the three factors that can potentially deliver outperformance (and a fourth noteworthy factor of momentum). A further deep dive into the corresponding indices will help us better understand whether these make for a compelling investment option and how accurately does historical data predict future winners.

1. **The Volatility factor:** For the purpose of this analysis, we studied the Nifty Alpha Low-Volatility 30 Index which is a combination of alpha and low volatility, the Nifty 100 Low Volatility 30 Index, and the S&P BSE Low Volatility Index. While the Nifty 100 Low Volatility 30 Index has marginally outperformed its parent index, the Nifty Alpha Low Volatility 30 Index has strongly underperformed its parent index.

Exhibit 3: Nifty 100 Low Volatility 30 vs Nifty 100 – Rolling Return
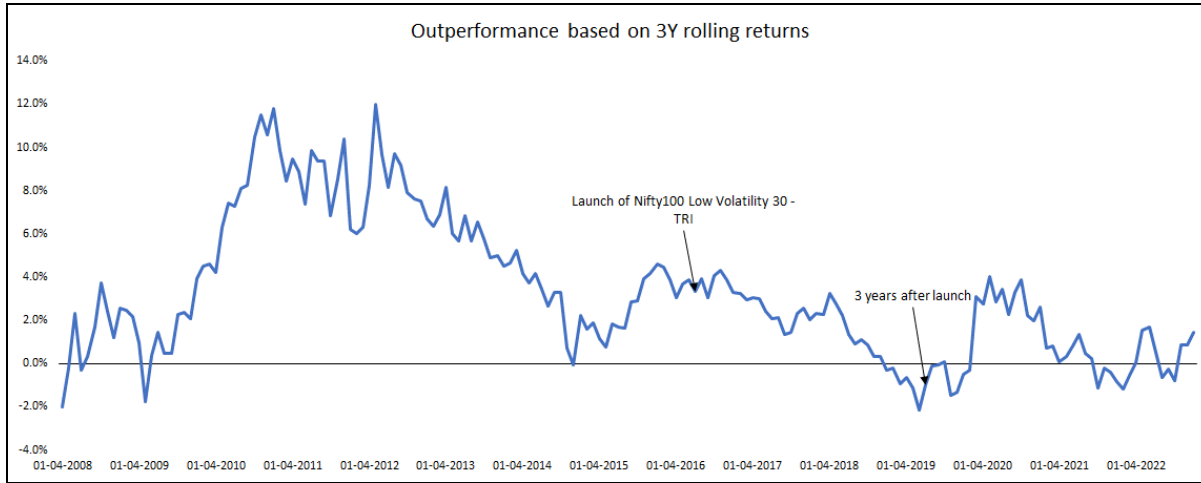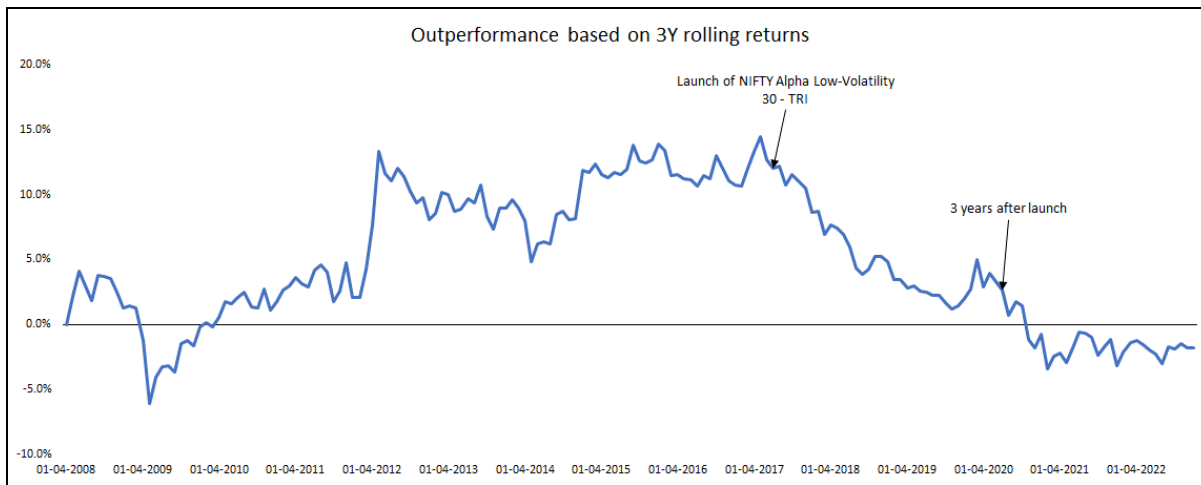

Exhibit 4: Nifty Alpha Low Volatility 30 vs Nifty 100 – Rolling Return

2. **The Value factor:** For this analysis, we studied the Nifty 50 Value 20 Index, the Nifty Dividend Opportunities 50 Index (have compared it with the Nifty Large & Mid 250), and the S&P BSE Enhanced Value Index. While the Nifty 50 Value 20 Index has consistently outperformed its parent index since launch, the Nifty Dividend Opportunities 50 Index and the S&P BSE Enhanced Value Index have mostly underperformed their respective parent indices.

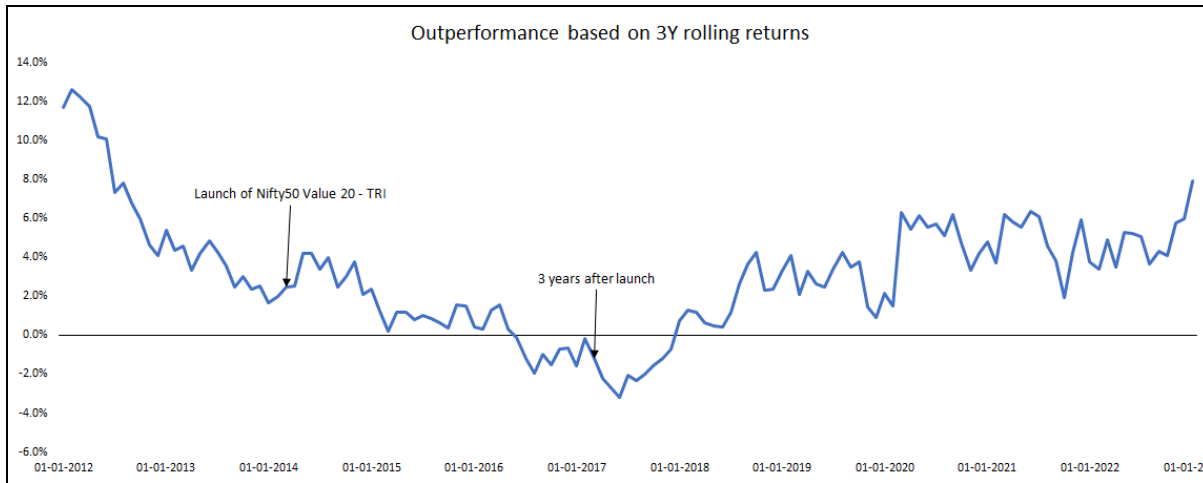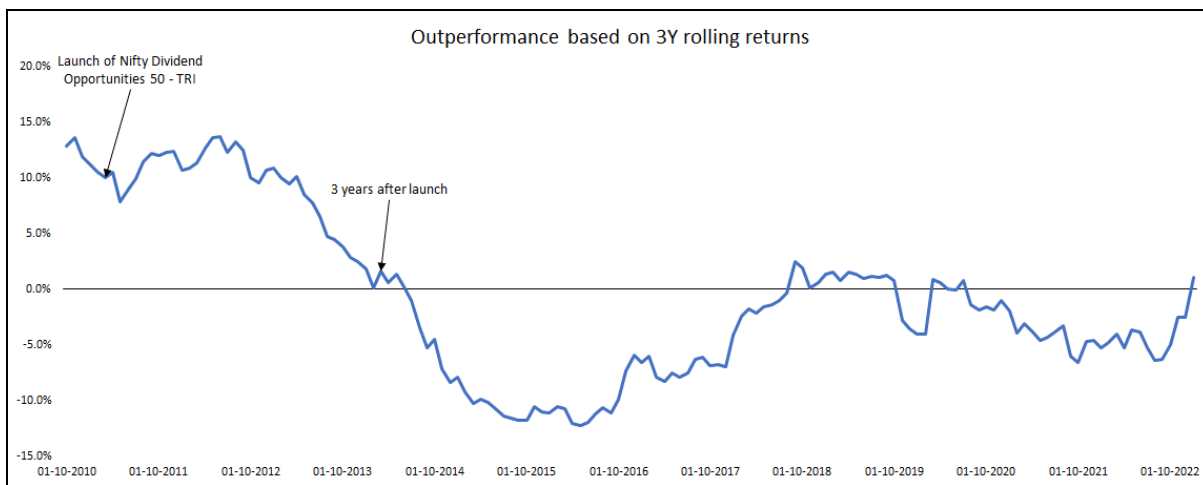Exhibit 5: Nifty 50 Value 20 vs Nifty 50 – Rolling Return

Exhibit 6: Nifty Dividend Opportunities 50 vs Nifty Large & Mid 250 – Rolling Return

3. **The Quality factor:** For this analysis, we studied the Nifty 100 Quality 30 Index, the Nifty 200 Quality 30 Index, the Nifty Midcap 150 Quality 50, and the S&P BSE Quality Index. While the recently launched Nifty Midcap 150 Quality 50 Index did register good performance in the year after its launch, it has most recently registered sharp underperformance. Further, both the Nifty 100 Quality 30 Index and the S&P BSE Quality Index have largely underperformed their parent indices, but we have still considered Nifty 100 Quality 30 Index for its tilt towards quality (which is factor that generally pays well over medium to long term) and some improvement seen in rolling returns recently.

Exhibit 7: Nifty Midcap 150 Quality 50 vs Nifty Midcap 150 – Rolling Return
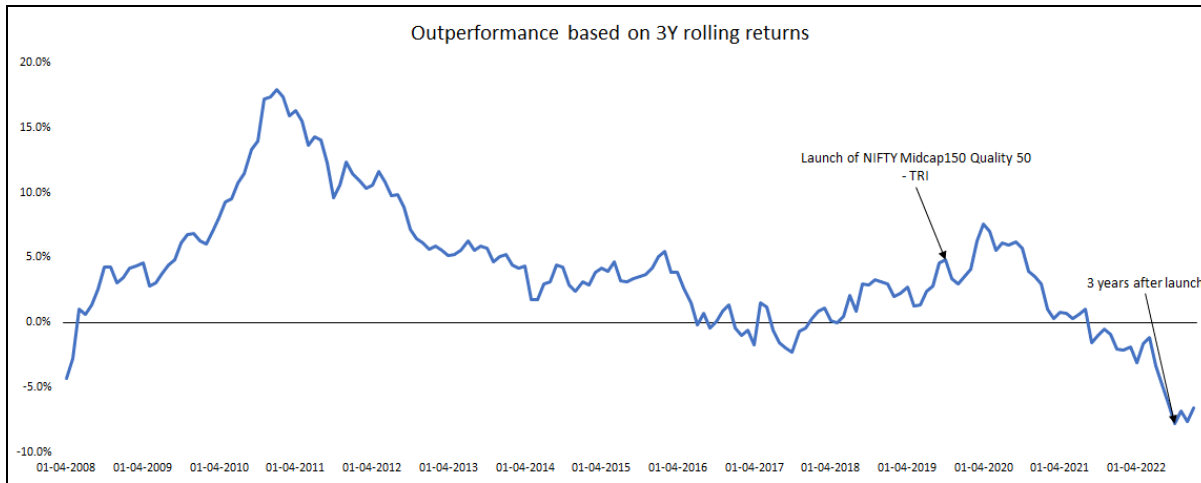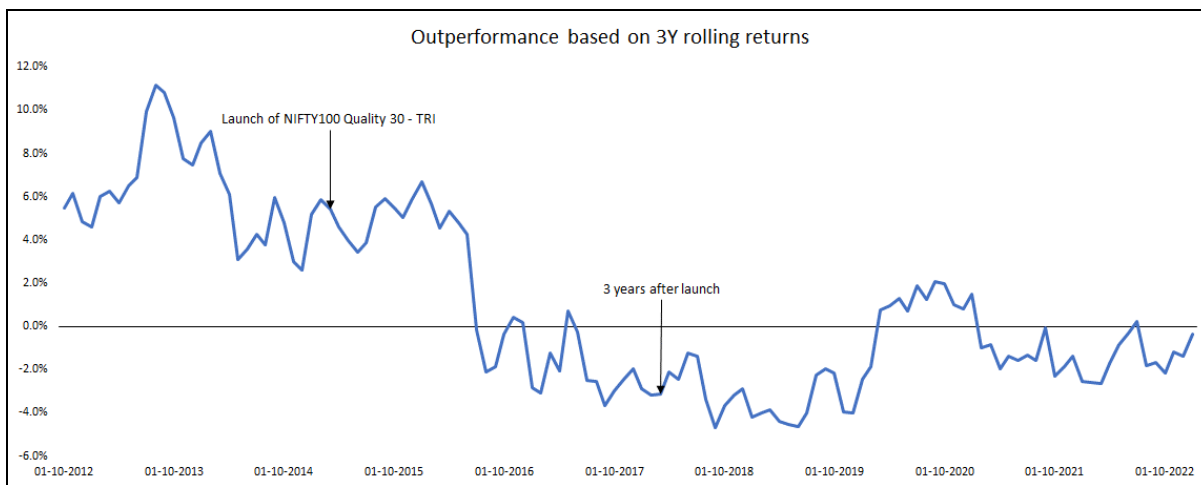

Exhibit 8: Nifty 100 Quality 30 vs Nifty 100 – Rolling Return

4. **The Momentum factor**: Another factor which we analysed was momentum whereby we covered strategy indices like the Nifty 200 Momentum 30 Index and the Nifty Midcap 150 Momentum 50 Index. While these indices have reported consistently high outperformance, we would approach them with caution considering that they have been launched recently and are yet to build their performance track record on a real time basis.

Exhibit 9: Nifty200 Momentum30 TRI - Rolling Return
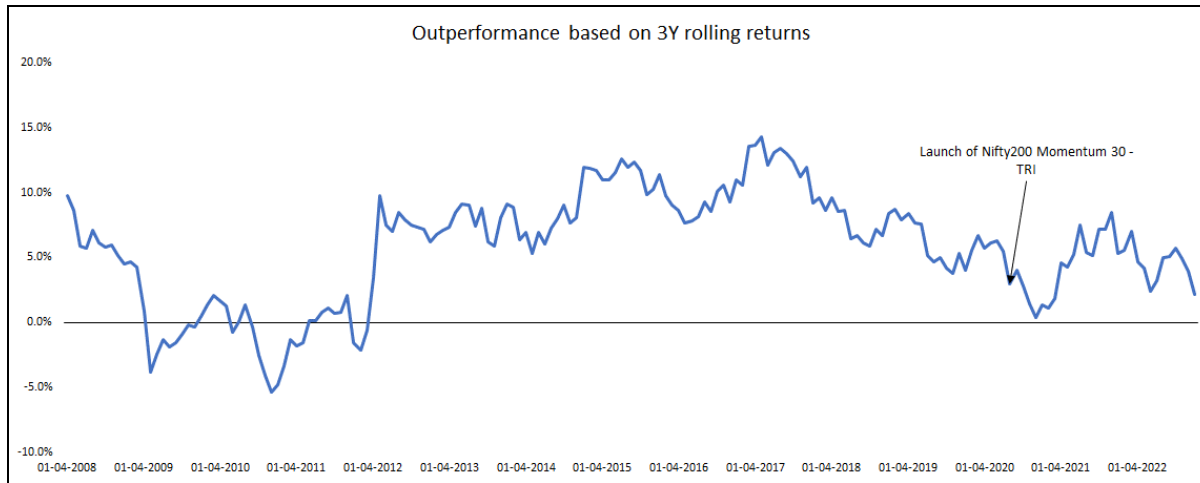
(Backtest) History doesn't always repeat itself!

Our analysis indicates that only a few SMART beta strategies have been able to consistently outperform their respective parent indices. While almost all of them have delivered superior performance in the back-test period, the post-launch returns have failed to reflect this superiority in many of the cases. However, it is important to highlight that if you are looking to create a robust and well-diversified portfolio, then there is a reason to consider the fact that a well-chosen factor driven strategy could be a good complimentary suite to the pure passive and pure active strategies.

In the backdrop of such an environment, we believe that factor selection, i.e., selecting the right factor strategy indices can play an integral role in creating robust long-term portfolios. For example, the Nifty 50 Value 20 Index has consistently outperformed its parent index (across time frames) and could be a compelling investment option particularly at rather expensive current market levels. The investment case in its favour is further solidified by the fact that the strategy index is inclined towards value, quality, and low volatility.

In conclusion, it is evident that SMART beta strategies are intelligent and can potentially add some alpha to investment portfolios. However, factor selection remains the key to fully harnessing this opportunity.

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