

Nifty Smallcap250 Momentum Quality 100 Index

February
2024



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Tracks small cap stocks picked on
momentum and quality factors

Introduction

Factor based investing is surging globally, and India’s diverse market is the perfect stage for its rise. The stocks selection in factor-based strategies is based on style factors such as size, alpha, quality, value, momentum and low volatility. This approach moves beyond traditional market capitalization considerations, recognizing that these distinct factors hold their own power, impacting returns in unique ways. Factor strategies deliver factor risk premia over the long run in a transparent, rule-based and cost-effective manner. Factor-based index strategies combine the benefits of both active and passive investment styles by applying well established stock-specific factors used in active investment, and the rules-based framework of passive investment. As of December 2023, there are more than 1,300 factor based equity ETFs/ETPs listed globally with total assets under management (AUM) of \$1,483 Bn (Source: ETFGI report – December 2023). In India, as of December 2023, there are 50+ factor based passive funds with total AUM of around Rs. 12,000 Cr. (Source: CMOTs).

The popular factors which are typically used to capture long term

risk premium include Alpha, Low-Volatility, Momentum, Quality and Value amongst others. However single factor-based strategies typically exhibit cyclical and may underperform during certain market phases. The cyclical component of single factor indices can be mitigated by selecting stocks based on a combination of multiple factors, named Multifactor investing.

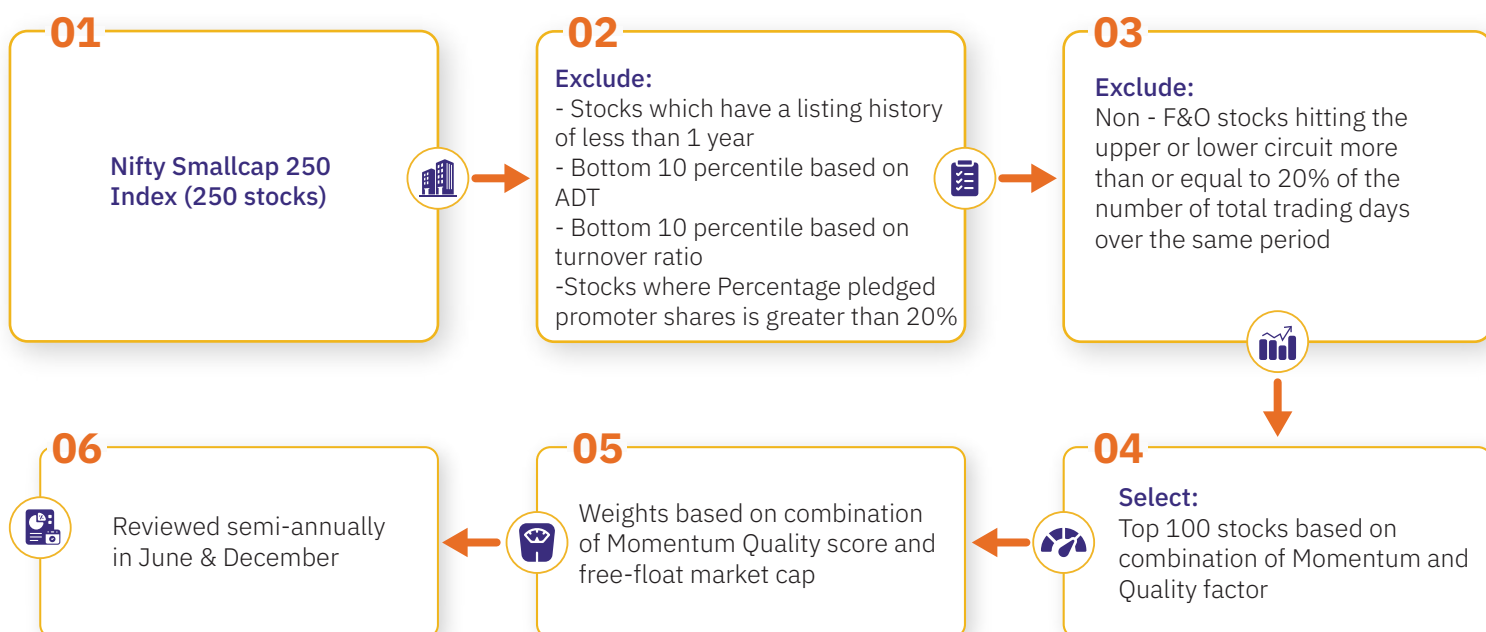
Multifactor investing is an investment strategy that seeks to diversify risk and potentially enhance returns by considering multiple factors that influence asset performance. Combination of momentum and quality factor is one of the multifactor investment strategies. Here, the momentum factor captures the trend by selecting stocks with recent strong price performance while quality factor seeks to provide stability by focusing on companies with robust financial health and profitability that add layers of resilience. To provide a pool of such stocks in the small cap segment, in December 2023, NSE Indices Limited launched a new index, Nifty Smallcap250 Momentum Quality 100 Index, developed using the combination of momentum and quality factors.

About the Nifty Smallcap250 Momentum Quality 100 Index

The Nifty Smallcap250 Momentum Quality 100 Index aims to track the performance of the small cap stocks which are selected based on the combination of momentum and quality factors. Stocks forming part of Nifty Smallcap 250 index are first filtered based on the average daily turnover (ADT), percentage pledged shares and turnover ratio to form an initial eligible universe for the Nifty Smallcap250 Momentum Quality 100 Index. The top 100 stocks are then selected from the eligible universe based on

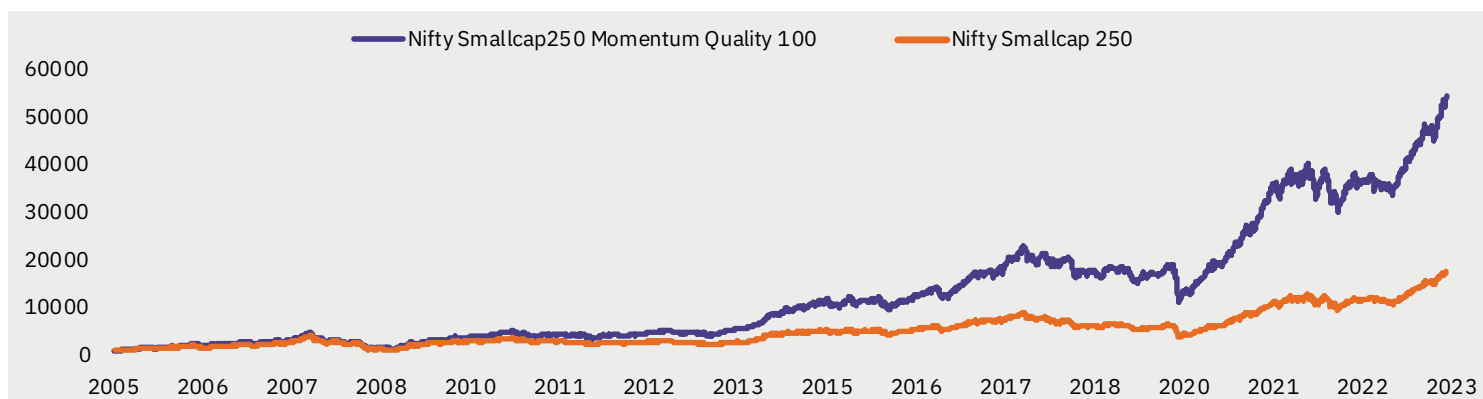
combination of composite momentum and quality factor of each stock. The momentum score for each company is determined based on its 6-month and 12-month price return, adjusted for volatility. The quality score for each company is determined based on return on equity (ROE), financial leverage (Debt/Equity Ratio) and earnings (EPS) growth variability analyzed during the previous 5 years.

Exhibit 1: Nifty Smallcap250 Momentum Quality 100 Index methodology



The Nifty Smallcap250 Momentum Quality 100 Index has significantly outperformed its parent index over the long term horizon

Exhibit 2: Nifty Smallcap250 Momentum Quality 100 and Nifty Smallcap 250 Index performance



Source: NSE Indices. Data as of December 29, 2023

Exhibit 3: Nifty Smallcap250 Momentum Quality 100 and Nifty Smallcap 250 Index performance table

Period	CAGR Returns		Volatility		Return-risk	
	Nifty Smallcap250 Momentum Quality 100	Nifty Smallcap 250	Nifty Smallcap250 Momentum Quality 100	Nifty Smallcap 250	Nifty Smallcap250 Momentum Quality 100	Nifty Smallcap 250
Since Inception*	23.79%	16.55%	21.74%	21.73%	1.09	0.76
15 years	26.87%	19.09%	19.40%	19.67%	1.39	0.97
10 years	25.42%	20.21%	19.44%	19.25%	1.31	1.05
7 years	23.40%	18.36%	19.34%	18.97%	1.21	0.97
5 years	25.30%	22.70%	19.88%	19.71%	1.27	1.15
3 years	34.41%	33.35%	17.56%	17.28%	1.96	1.93
1 year	50.09%	49.09%	13.38%	12.56%	3.74	3.91
6 months	30.50%	33.76%	14.42%	13.70%	2.11	2.46
3 months	14.55%	14.91%	16.02%	15.10%	0.91	0.99

Source: NSE Indices. Data as of December 29, 2023. * Based on inception date of April 01, 2005. Returns based on TRI values. Returns for the period up to 1-year are absolute returns. Returns for the period greater than one year are CAGR returns; Volatility is the annualized standard deviation calculated based on daily returns.

As of December 29, 2023, the Nifty Smallcap250 Momentum Quality 100 Index has outperformed the Nifty Smallcap 250 Index in 15, 10, 7, 5, 3 and 1 year horizon period. Over the last 10 years, the Nifty Smallcap250 Momentum Quality 100 Index has returned 25.42% CAGR compared to 20.21% CAGR of the Nifty Smallcap 250 Index. Since its inception (April 2005), the Nifty Smallcap250 Momentum Quality 100 index has delivered 23.79% CAGR return against 16.55% return for the Nifty Smallcap 250 Index. However, the Nifty Smallcap250 Momentum Quality 100 Index has underperformed the Nifty Smallcap 250 Index in the shorter term horizon period of 6 and 3 months. Over the last 6 months, the Nifty Smallcap250 Momentum Quality 100 Index has delivered 30.5% return against 33.76% return for the Nifty Smallcap 250 Index.

As can be seen in the above table, the volatility in Nifty Smallcap250 Momentum Quality 100 Index has been slightly higher than the Nifty Smallcap 250 Index over the 10, 7, 5, 3, 1 year horizon period. However, for the period since inception, the Nifty Smallcap250 Momentum Quality 100 Index has had annualized volatility of 21.74% which is in line with the 21.73% for the Nifty Smallcap 250 Index.

Despite having higher volatility, the Nifty Smallcap250 Momentum Quality 100 Index has a higher return to risk ratio than the Nifty Smallcap 250 over 15, 10, 7, 5 and 3 year horizon period. For example, over the last 15 years, the return to risk ratio of the Nifty Smallcap250 Momentum Quality 100 Index is 1.39 vs 0.97 for the Nifty Smallcap 250 Index.

The Nifty Smallcap250 Momentum Quality 100 has outperformed the Nifty Smallcap 250 Index in 17 years out of 19 calendar years

Exhibit 4: Performance of the Nifty Smallcap250 Momentum Quality 100 and Nifty Smallcap 250 Index by calendar year

CY	Nifty Smallcap250 Momentum Quality 100	Nifty Smallcap 250
2005*	68.84%	55.76%
2006	50.59%	32.85%
2007	80.66%	97.44%
2008	-66.51%	-68.58%
2009	132.10%	117.37%
2010	27.70%	17.63%
2011	-24.64%	-35.07%
2012	47.68%	40.39%
2013	11.81%	-6.44%
2014	81.64%	71.66%
2015	16.94%	11.27%
2016	4.06%	1.39%
2017	72.92%	58.47%
2018	-18.42%	-26.15%
2019	-1.87%	-7.26%
2020	29.64%	26.46%
2021	72.32%	63.34%
2022	-6.11%	-2.64%
2023	50.09%	49.09%

Source: NSE Indices. *Data for the year 2005 is from April 01, 2005 to December 30, 2005. The cells in green (red) are the calendar years when the Nifty Smallcap250 Momentum Quality 100 Index outperformed (underperformed) the Nifty Smallcap 250 Index.

The Nifty Smallcap250 Momentum Quality 100 Index has outperformed the Nifty Smallcap 250 Index in 17 out of the last 19 calendar years from CY2005-23. The Nifty Smallcap250 Momentum Quality 100 index has outperformed its parent Nifty Smallcap 250 index during periods of economic downturn (Global Financial Crisis 2008) as it delivered -66.51% return as against -68.58% return for the Nifty Smallcap 250 index.

The Nifty Smallcap250 Momentum Quality 100 index has outperformed the Nifty Smallcap 250 index during the economic recovery of 2009 as it delivered 132.1% return vs 117.37% return for the Nifty Smallcap 250 index generating an alpha of

~14.7% and the same can be seen in the recovery period of CY 2021 as well (Covid-19 pandemic) where the Nifty Smallcap250 Momentum Quality Index provided returns of 72.32% compared to 63.34% of Nifty Smallcap 250. The relatively robust performance of the Nifty Smallcap250 Momentum Quality 100 index can be seen during global economic slowdown of 2011, where the Nifty Smallcap250 Momentum Quality 100 index delivered -24.64% vs -35.07% return for the Nifty Smallcap 250 index. The Nifty Smallcap250 Momentum Quality 100 index has outperformed the Nifty Smallcap 250 index from CY2008 to CY 2021.



The Nifty Smallcap250 Momentum Quality 100 Index has outperformed the Nifty Smallcap 250 Index on a daily rolling return basis across 10, 7, 5, 3, 2 and 1 year horizon period

Exhibit 5: Instances of outperformance of the Nifty Smallcap250 Momentum Quality 100 Index vs Nifty Smallcap 250 Index on daily rolling return basis

Percentage of total instances of Outperformance and Underperformance vs Nifty Smallcap 250 Index on daily rolling return basis					
Investment Horizon	Nifty Smallcap250 Momentum Quality 100 Index				
	Instances of underperformance vs Nifty Smallcap 250	Instances of Outperformance vs Nifty Smallcap 250			
		Excess Return (<0% CAGR)	Excess Return (>=0% CAGR)	Excess Return (0-2% CAGR)	Excess Return (2-4% CAGR)
10 years	0.0%	100.0%	0.0%	0.0%	100%
7 years	0.0%	100.0%	0.0%	0.0%	100%
5 years	0.0%	100.0%	1.0%	5.0%	94.0%
3 years	3.0%	97.0%	9.2%	10.0%	77.8%
2 years	9.3%	90.7%	8.8%	7.1%	74.9%
1 year	16.1%	83.9%	5.1%	8.9%	69.9%

Source: NSE Indices. Instances of outperformance or underperformance calculated using daily rolling returns. Analysis period is from April 01, 2005 to December 29, 2023

Historically, on a daily rolling return basis, the Nifty Smallcap250 Momentum Quality 100 Index has outperformed the Nifty Smallcap 250 Index 100% of the times over the 10-year, 7-year and 5-year horizon. The number of instances of outperformance falls to 83.9% over 1-year horizon indicating a lower frequency of outperformance over the short-term horizons. From exhibit 5

above, we see that for the 10 year and 7 year horizon, 100% of times the Nifty Smallcap250 Momentum Quality 100 index outperformed the parent index with excess returns more than 4% p.a. For 5 year horizon, 94% of the times the Nifty Smallcap250 Momentum Quality 100 index outperformed the parent index with excess returns more than 4% p.a.

The Nifty Smallcap250 Momentum Quality 100 index is presently overweight on Financial Services & Information Technology and underweight on Auto & Consumer Services relative to its parent index.

Exhibit No 6: Sector exposure between the Nifty Smallcap250 Momentum Quality 100 and the Nifty Smallcap 250 Index

Sectors	Nifty Smallcap250 Momentum Quality 100	Nifty Smallcap 250
Financial Services	25.77	23.11
Capital Goods	16.63	15.41
Information Technology	12.83	6.70
Healthcare	9.03	9.67
Fast Moving Consumer Goods	5.80	4.13
Construction	4.84	3.84
Services	4.36	3.42
Chemicals	3.85	5.51
Oil, Gas & Consumable Fuels	2.81	2.19
Consumer Durables	2.70	4.63
Automobile and Auto Components	2.15	4.59
Consumer Services	1.89	4.40
Metals & Mining	1.33	2.09
Forest Materials	1.28	0.67
Textiles	1.15	1.21
Construction Materials	0.95	1.34
Power	0.91	1.43
Telecommunication	0.77	1.98
Realty	0.77	1.73
Media, Entertainment & Publication	0.18	1.60
Diversified	-	0.36

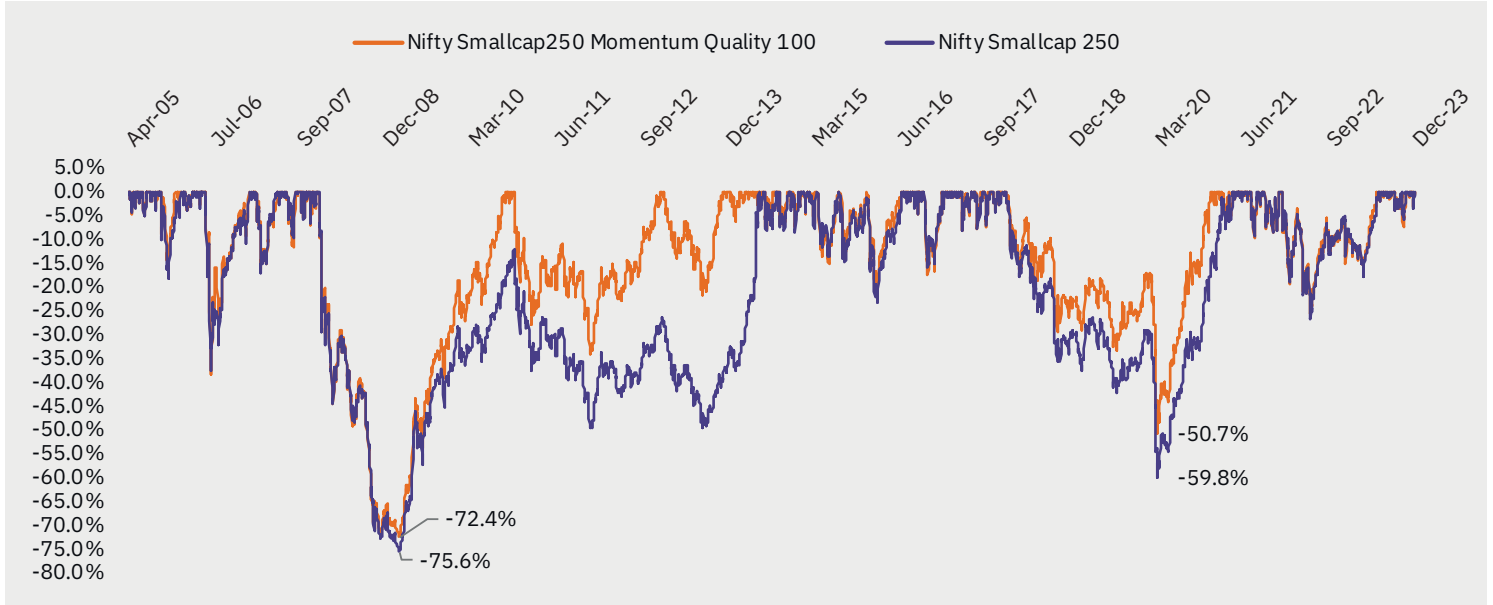
Source: NSE Indices. Data as of December 29, 2023

The Nifty Smallcap250 Momentum Quality 100 Index has a diversified portfolio with present exposure to 20 sectors (based on the Standard Industry Classification published by NSE Indices Ltd.). Of these 20 sectors, the index has highest exposure to Financial Services (25.77%), Capital goods (16.63%), Information Technology (12.83%), Healthcare (9.03%) and Fast Moving Consumer Services (5.80%), accounting for ~70% of the portfolio and the remaining 30% weight is distributed among the remaining 15 sectors.

The top three sectors together account for 55.24% of the weight of the Nifty Smallcap250 Momentum Quality 100 Index as against 45.22% in the Nifty Smallcap 250 index (parent index). The Nifty Smallcap250 Momentum Quality 100 Index was overweight the Financial Services and Information Technology by 2.6%, 6.13% respectively and underweight the Automobile and Auto Component and Consumer Services sector by 2.44% and 2.5% respectively, relative to the Nifty Smallcap 250 Index.

Nifty Smallcap250 Momentum Quality 100 Index had lower drawdown as compared to Nifty Smallcap 250 Index

Exhibit No 7: Drawdown (%) comparison between the Nifty Smallcap250 Momentum Quality 100 and the Nifty Smallcap 250 Index



Source – NSE Indices. Analysis period: April 01, 2005, to December 29, 2023. Return based on TR index values.

Drawdown refers to the peak to trough decline during a specific period of investment. The Nifty Smallcap250 Momentum Quality 100 Index witnessed maximum drawdown of -72.4% during September 2008 to March 2009 whereas during the same period, the parent index Nifty Smallcap 250 had witnessed a maximum drawdown of -75.6%. During the period of March 2012 to March 2019, the Nifty Smallcap250 Momentum Quality 100

index had a smaller drawdown of -29.5% whereas, during the same period Nifty Smallcap 250 witnessed a maximum drawdown of -49%. During the covid period, the Nifty Smallcap250 Momentum Quality 100 index witnessed a drawdown of -50.7% vs -59.8% drawdown for the Nifty Smallcap 250 index.

Signing off...



The Nifty Smallcap250 Momentum Quality 100 Index aims to track the performance of the small cap stocks which are selected based on the combination of momentum and quality factors



Since inception on April 01, 2005, till December 29, 2023, the Nifty Smallcap250 Momentum Quality 100 index has delivered 23.79% CAGR return against 16.55% return for the Nifty Smallcap 250 Index



The Nifty Smallcap250 Momentum Quality 100 has outperformed the Nifty Smallcap 250 Index in 17 years out of the 19 calendar years



The Nifty Smallcap250 Momentum Quality 100 Index has outperformed the Nifty Smallcap 250 Index majority of times on a daily rolling return basis across 10, 7, 5, 3, 2 and 1 year investment horizon. Over the 10 and 7 years period, the Nifty Smallcap250 Momentum Quality 100 index has outperformed the Nifty Smallcap 250 index 100% of the time on a daily rolling return basis with excess returns of more than 4%p.a.



The Nifty Smallcap250 Momentum Quality 100 index is presently overweight on Financial Service & Information Technology and underweight on Automobile and Auto components & Consumer Services



The Nifty Smallcap250 Momentum Quality 100 Index has had smaller peak to trough decline (drawdown) as compared to Nifty Smallcap 250 Index for most of the historical periods

For more information on the Index methodology and factsheet, please visit us at www.nseindia.com

About NSE Indices Limited:

NSE Indices Limited (formerly known as India Index Services & Products Ltd. - IISL), a subsidiary of NSE, provides a variety of indices and index related services for the capital markets. The company focuses on the index as a core product. The company owns and manages a portfolio of indices under the Nifty brand of NSE, including the flagship index, the Nifty 50. Nifty equity indices comprise of broad-based benchmark indices, sectoral indices, strategy indices, thematic indices and customised indices. NSE Indices Limited also maintains

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fixed income indices based on Government of India securities, corporate bonds, money market instruments and hybrid indices. Many investment products based on Nifty indices have been developed within India and abroad. These include index based derivatives traded on NSE and NSE International Exchange IFSC Limited (NSE IX) and a number of index funds and exchange traded funds. The flagship 'Nifty 50' index is widely tracked and traded as the benchmark for Indian Capital Markets.

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