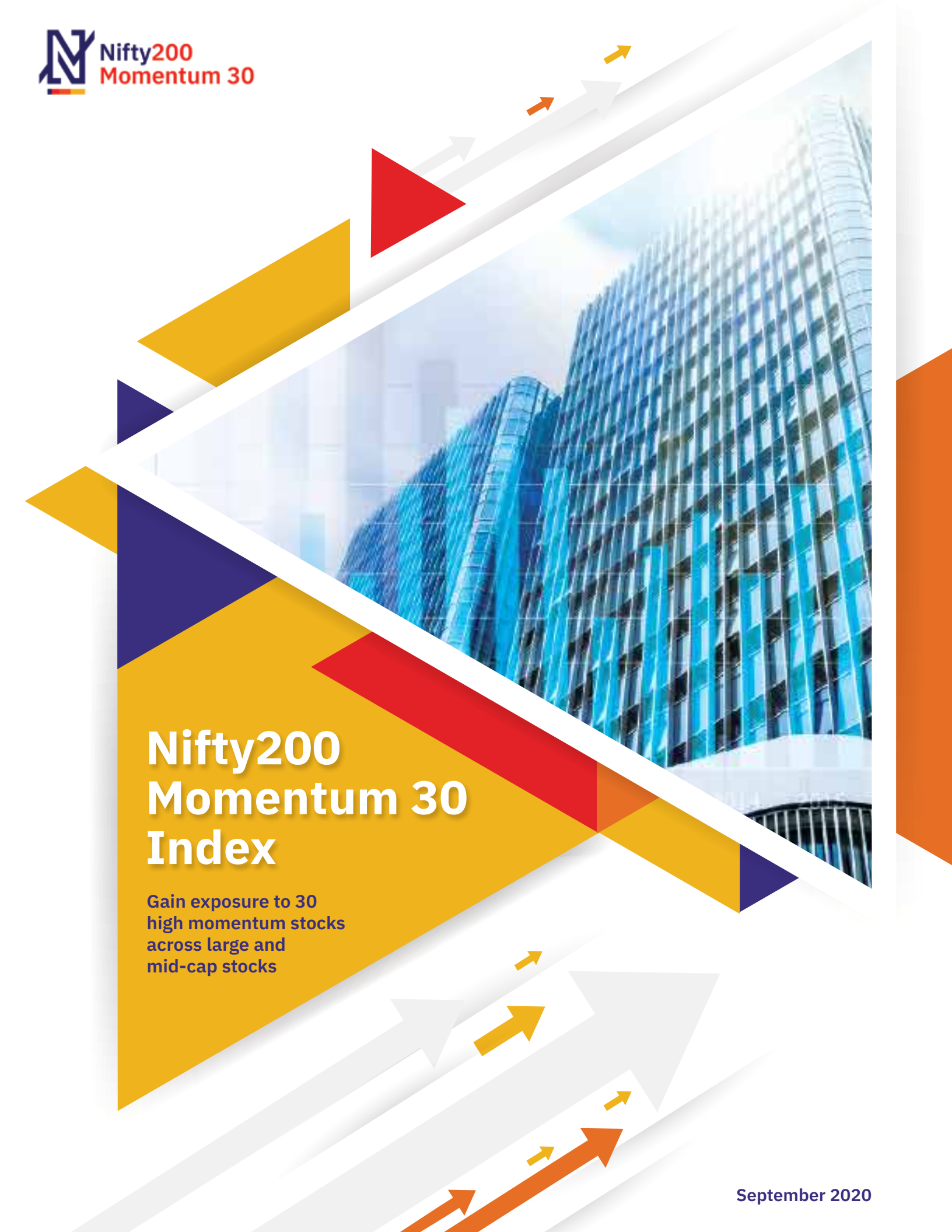




The graphic features a large, stylized upward-pointing arrow in the center, composed of yellow, red, and blue segments. This arrow is set against a background of a modern glass skyscraper. Several smaller arrows in white, yellow, and orange point upwards, creating a sense of momentum. The overall design is dynamic and modern, with a color palette of yellow, red, blue, and orange.

Nifty200 Momentum 30 Index

Gain exposure to 30
high momentum stocks
across large and
mid-cap stocks

Introduction

Momentum refers to the tendency of stock price trends to persist – stocks that have outperformed recently are likely to continue to outperform, and vice versa. The momentum factor's ability to generate excess returns in equity markets has earned it the title 'the premier anomaly'¹, according to Eugene Fama, the father of the Efficient Market Hypothesis. There is no universal explanation for why the momentum factor works. Some potential explanations are that investors tend to initially underreact to news affecting stock prices. Thus, news is reflected in stock prices gradually, instead of instantly. For example, prices tend to increase for weeks or months after a positive earnings surprise as more investors revise their expectations upward. 'Herding' then begins to take place as other investors observe the strong performance and increase their exposure, leading to further price increases. Likewise, in a downtrend,

investors are often reluctant to realize losses on their investments. Thus, stock may not fall instantly as much as it should on bad news. In both cases, the slow assimilation of news across the market, or loss aversion, can lead to delays in adjustment of the stock price to all available news and thus create a prolonged upward / downward trend in stock prices.

Momentum remains a simple to understand and popular factor globally as well. Moreover, the concept of momentum extends beyond the stock market. It has been documented across asset classes, geographies and over long periods of time² in academic literature. In the US, Momentum ETFs have approximately \$14bn in Assets Under Management (AUM) as of June 2020 (Source: etfdb.com). However, this amount does not reflect AUM of multifactor ETFs, in which momentum is one of the factors.

About the Nifty 200 Momentum 30 Index

NSE Indices has developed the 'Nifty200 Momentum 30 Index' which aims to track the performance of the top 30 companies within the Nifty 200 Index selected based on their normalised momentum score. The normalised momentum score for each company is determined based on its 6-month and 12-month price return, adjusted for its daily price volatility. Stock weights are based on a combination of the stock's normalised momentum score and its free-float market capitalization.

Highlights

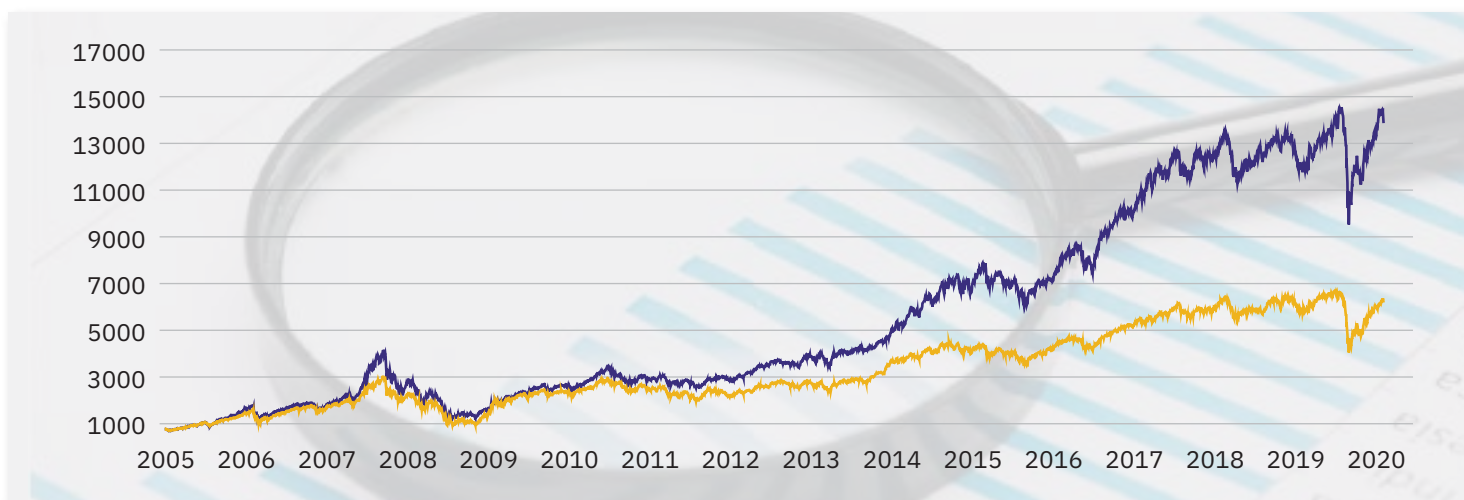
- ▶ The index has a base date of April 01, 2005, with a base value of 1000
- ▶ The index tracks the performance of the stocks that are part of the Nifty 200 Index, and have high normalised momentum scores
- ▶ The normalised momentum score is based on 6-month and 12-month price return, adjusted for its daily price return volatility
- ▶ The weight of each stock is based on the factor tilt methodology – the weight is derived by multiplying the free float market cap with the normalised momentum score of that stock
- ▶ Stock weights are capped at the lower of 5% or 5 times the weight of the stock in the index based only on free float market capitalization
- ▶ A buffer based on normalised momentum score ranks is applied to reduce turnover

1 Dissecting Anomalies (2008), Eugene F. Fama and Kenneth R. French

2 A Century of Evidence on Trend-Following Investing (2012), Brian Hurst, Yao Hua Ooi and Lasse H. Pedersen, Ph.D

The Nifty200 Momentum 30 Index has significantly outperformed its parent index over the long term and recent short-term horizon

Exhibit 1: Nifty200 Momentum 30 Index and Nifty 200 Index performance



Source: NSE Indices. Data as of August 31, 2020

— Nifty 200 Momentum 30 — Nifty 200

Exhibit 2: Nifty200 Momentum 30 Index and Nifty 200 Index performance table

Period	CAGR returns		Annualised Volatility		Return-risk ratio	
	Nifty200 Momentum 30	Nifty200	Nifty200 Momentum 30	Nifty200	Nifty200 Momentum 30	Nifty200
Since Inception	18.6%	12.7%	23.4%	22.3%	0.80	0.57
15 years	18.0%	11.9%	23.6%	22.5%	0.76	0.53
10 years	16.3%	8.9%	18.0%	17.3%	0.90	0.51
7 years	20.5%	13.2%	18.8%	17.2%	1.09	0.77
5 years	13.4%	8.4%	19.1%	17.8%	0.70	0.47
3 years	7.2%	4.3%	20.6%	20.2%	0.35	0.21
1 years	14.5%	4.5%	29.3%	30.0%	0.49	0.15
6 months	2.3%	2.1%	38.1%	39.3%	0.06	0.05
3 months	14.6%	19.0%	14.9%	15.5%	0.98	1.23

Source: NSE Indices. Data as of August 31, 2020. Inception date: April 01, 2005. Returns based on TRI values

The Nifty200 Momentum 30 Index has outperformed the Nifty 200 Index since inception, with an 18.6% CAGR return against 12.7% return for the Nifty 200 Index. In the last 3 years, the Nifty200 Momentum 30 Index has returned 7.2% CAGR compared to 4.3% CAGR for the Nifty 200 Index.

The Nifty200 Momentum 30 Index has been slightly less volatile than the Nifty 200 Index over recent short-term horizons, but somewhat more volatile over long-term horizons. It has been marginally less volatile than its parent index during the recent 6 months, with annualized volatility of 38.1% against

39.3% for the Nifty 200 Index. Since inception, the Nifty200 Momentum 30 Index has had annualized volatility of 23.4% vs. 22.3% for its parent index. However, the Nifty200 Momentum 30 Index has maintained higher return-risk ratios on a

point-to-point basis even over periods where its volatility has exceeded that of the Nifty 200 Index. For example, it has a return-risk ratio of 0.80 since inception vs 0.57 for the Nifty 200 Index.

Nifty200 Momentum 30 Index has consistently outperformed the Nifty 200 Index on a daily rolling return basis over long and short horizons

Exhibit 3: Instances of outperformance of Nifty200 Momentum 30 Index vs Nifty 200 Index on daily rolling return basis

Percentage of total instances of Outperformance and Underperformance vs Nifty 200 Index on daily rolling return basis					
Investment Horizon	Nifty200 Momentum 30 Index				
	Instances of Outperformance vs Nifty 200 Index				
	Excess Return $\geq 0\%$ CAGR	Excess Return $< 0\%$ CAGR	Excess Return $> 4\%$ CAGR)	Excess Return (2-4% CAGR)	Excess Return (0-2% CAGR)
10 years	100.0%	0.0%	100.0%	0.0%	0.0%
7 years	100.0%	0.0%	79.1%	19.8%	1.1%
5 years	98.3%	1.7%	65.5%	21.6%	11.1%
3 years	85.5%	14.5%	74.3%	2.1%	9.2%
2 years	83.4%	16.6%	73.4%	7.6%	2.3%
1 year	78.7%	21.3%	65.4%	6.2%	7.1%

Source: NSE Indices. Instances of outperformance or underperformance calculated using daily rolling returns. Data as August 31, 2020

Historically, for 5 year investment horizon, based on daily rolling returns, the Nifty200 Momentum 30 Index has outperformed the Nifty200 Index 98.3% of the time. The frequency of outperformance rises to 100% when we consider longer time horizon of 7 years and 10 years. This outperformance is also observed over shorter periods. For example, for 1 year investment horizon, based on daily rolling return

analysis, the Index has outperformed the Nifty 200 Index 78.7% of the time.

From the table above, we observe that for the 5 year investment horizon, based on daily rolling return analysis, the outperformance of the Nifty200 Momentum 30 Index exceeds 4% per annum over the Nifty 200 Index for 65.4% of the instances,

outperformance was in the range of 2-4% per annum for 21.6% of the instances and outperformance was in the range of 0-2% per annum for 11.1% of the

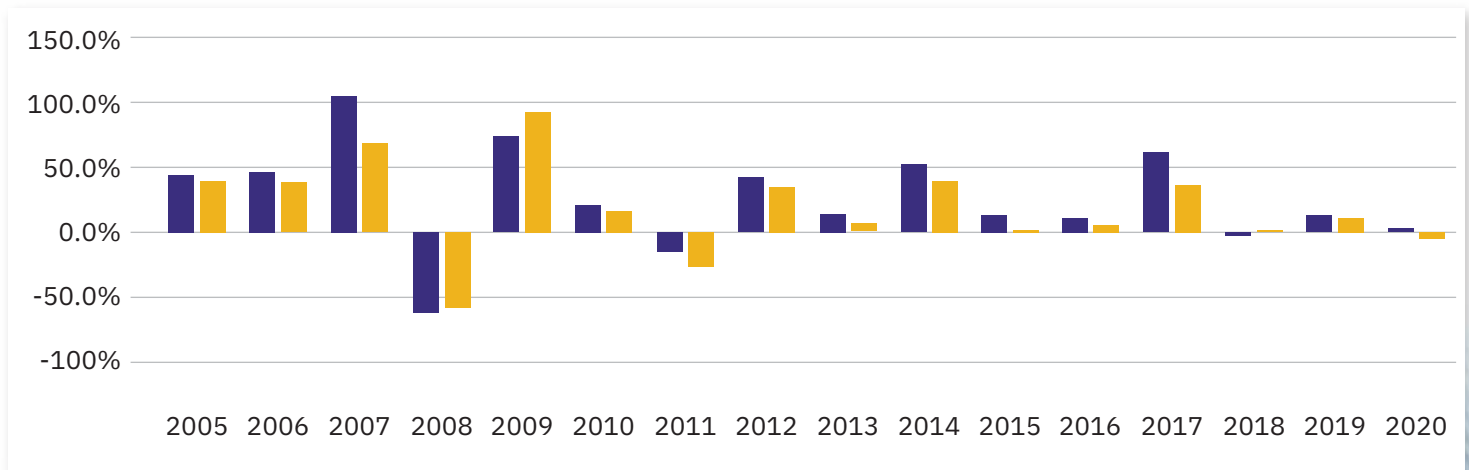
instances, leading to cumulative 98.3% instances of outperformance over the Nifty 200 Index.

Nifty200 Momentum 30 Index has outperformed the Nifty 200 Index in CY 2020 till August 31, 2020, and over longer time horizons as well

Over a long horizon, the Nifty200 Momentum 30 Index has shown strong consistency in its outperformance over the Nifty 200 Index. It has outperformed in 13 out of the last 16 calendar years. Thus, since the Global Financial Crisis of 2008-09, the Nifty200 Momentum 30 Index has been able to outperform its parent index during both bull and bear market phases. The Nifty200 Momentum 30 Index

has outperformed the Nifty 200 Index during CY 2020 till August 31, 2020 (2.3% vs -5.1% for the Nifty 200 Index). The relatively higher weight in the defensive Consumer Goods sector (27.3%) as of December 2019 helped cushion the impact of the H1 2020 pandemic related sell-off across rest of the portfolio.

Exhibit 4: Performance of Nifty200 Momentum 30 Index and Nifty 200 Index by calendar



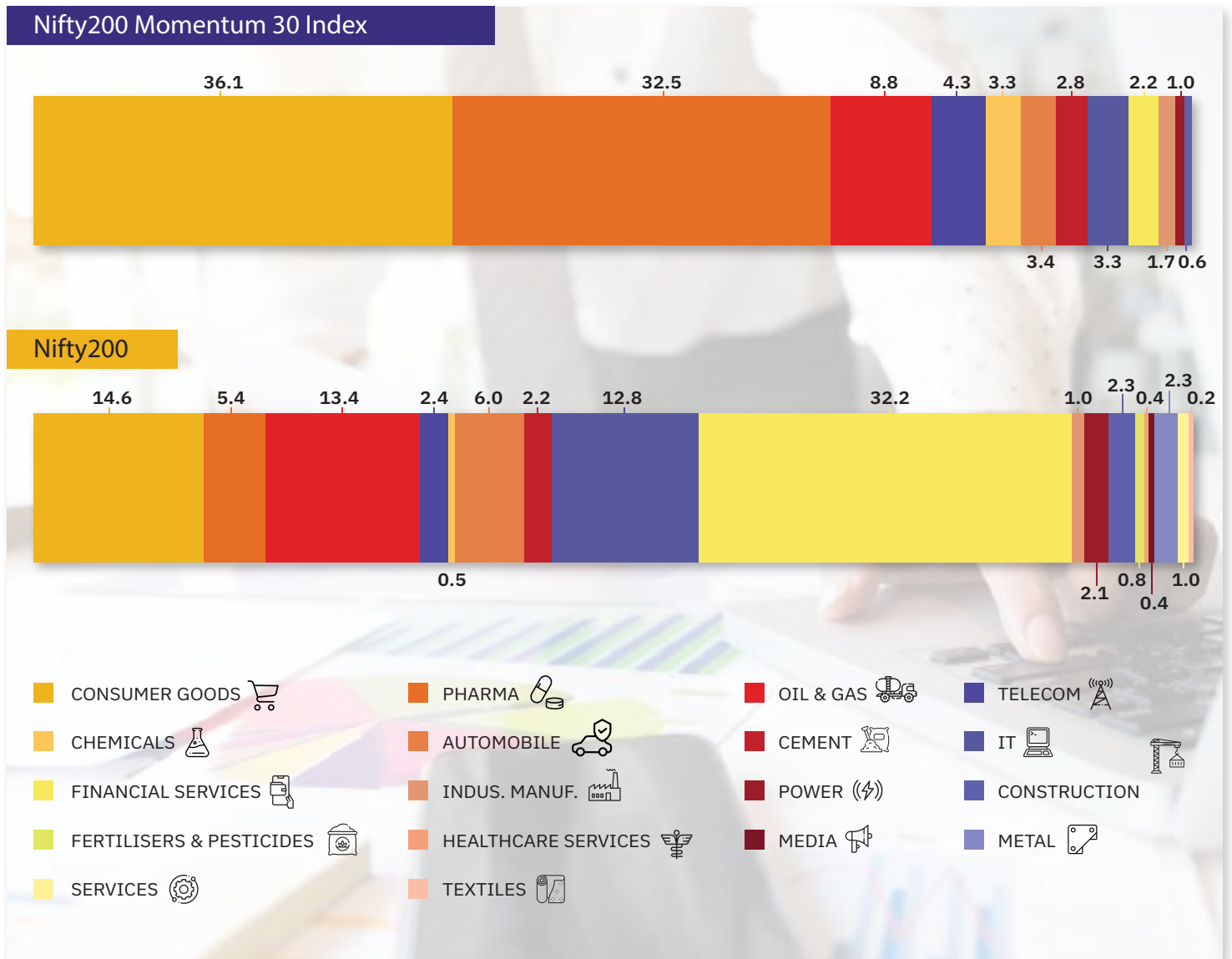
■ Nifty 200 Momentum 30 ■ Nifty 200

Source: NSE Indices. Data as of August 31, 2020

The Nifty200 Momentum 30 Index is currently overweight the Consumer Goods and Pharma sectors and underweight the Financial Services sector

The sector distribution and the difference in sector weights between the 2 indices is shown below.

Exhibit 5: Comparison of sector exposure of the Nifty200 Momentum 30 Index and the Nifty 200 Index (%)



Source: NSE Indices. Data as of August 31, 2020

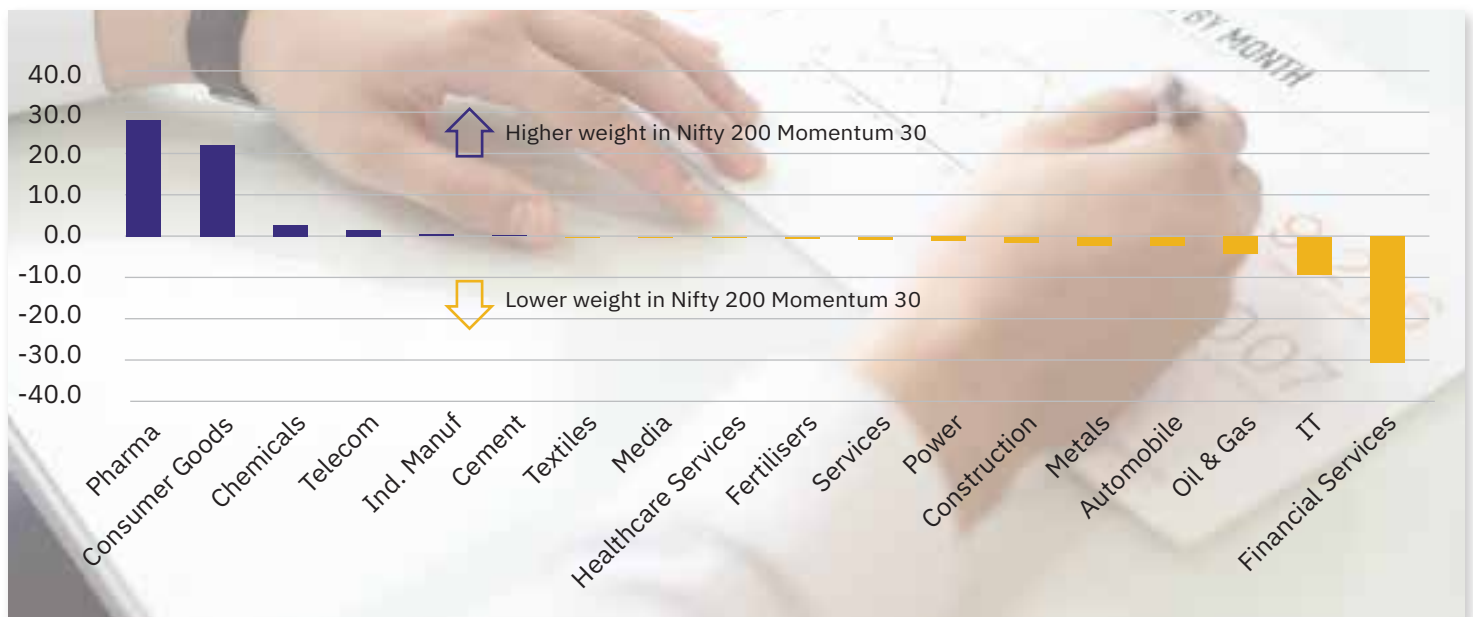
The Nifty200 Momentum 30 Index selects stocks which have high normalised momentum scores, which in turn is based on their 6-month and 12-month price return, adjusted for daily price return volatility. During the first six months of 2020, several stocks in

the Consumer Goods and Pharma sectors witnessed high momentum, with their defensive nature enabling them to perform relatively well during the pandemic related market volatility. Hence these two sectors currently have the highest sector weights in the

Nifty200 Momentum 30 Index. As on August 31, 2020, the Consumer Goods sector has 36.1% weight and the Pharma sector has 32.5% weight in the Nifty200 Momentum 30 Index as compared to 14.6% and 5.4% sector weights respectively in the Nifty 200 Index. As on August 31, 2020, the Nifty200 Momentum 30 Index is underweight in the Financial

Services sector relative to the Nifty 200 Index, as this sector has suffered due to the market sell-off in Q1 2020. As on August 31, 2020, the Financial Services sector accounts for 2.2% weight in the Nifty200 Momentum Index, compared to 32.2% in the Nifty 200 Index.

Exhibit 6: Change in Sector weights in Nifty200 Momentum 30 Index vis-à-vis Nifty 200 Index (%age points)



Source: NSE Indices. Data as of August 31, 2020

As observed in the Exhibit above, the Nifty200 Momentum 30 Index's largest sector overweights relative to its parent Index are the Pharma and

Consumer Goods sectors. Meanwhile Financial Service and IT are the two sectors it is most underweight relative to the Nifty 200 Index.

The Nifty200 Momentum 30 Index adapts to changing market conditions and increases the weight to current outperforming sectors

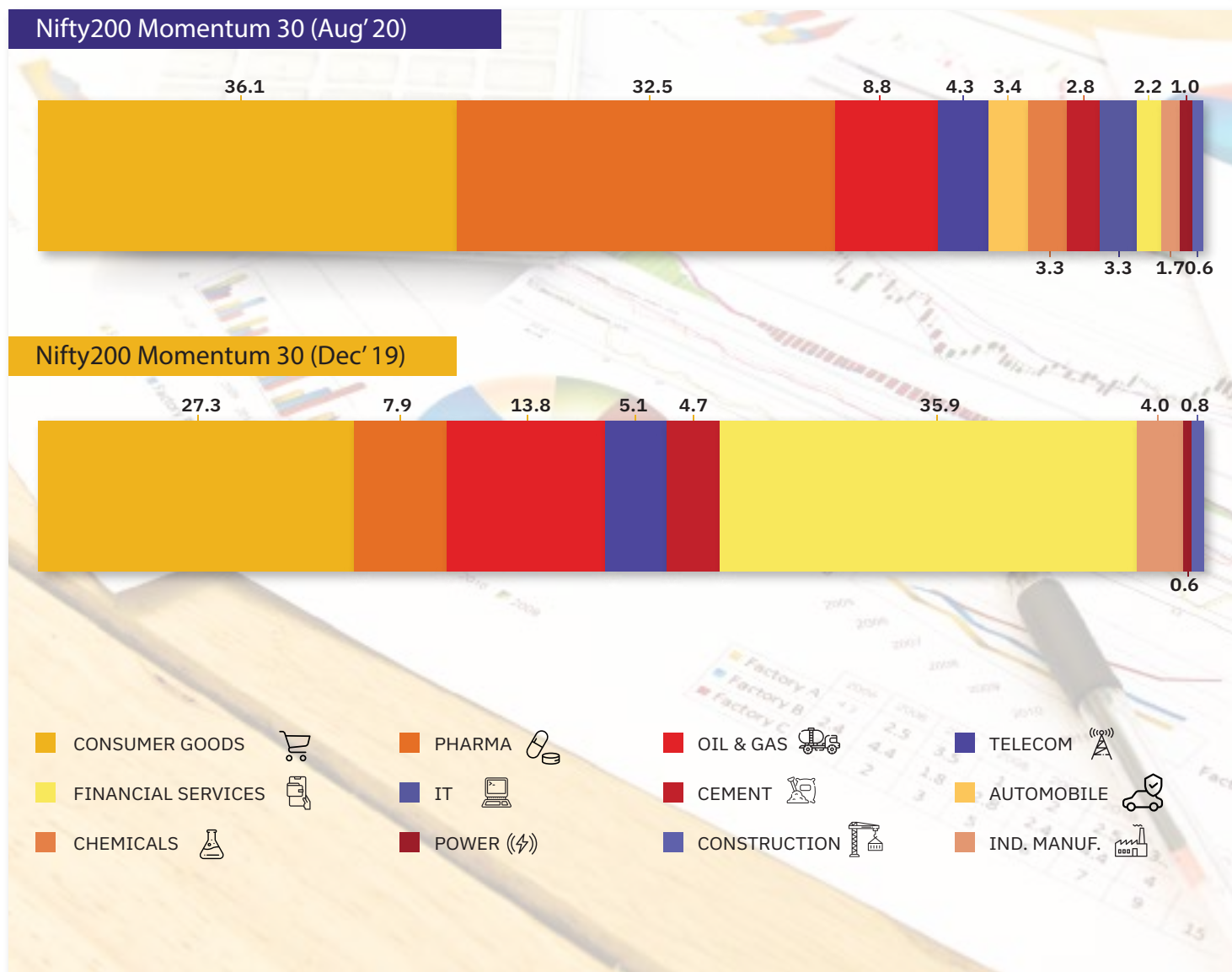
The Momentum factor's basic premise is that stocks that have outperformed recently may continue to outperform, and vice versa. Thus, the Nifty200 Momentum 30 Index aims to overweight outperforming stocks/sectors relative to its parent Index and adapts itself as the market outperformers change. The Exhibit below shows the sector weights for the Nifty200 Momentum 30 Index as on August

31, 2020 and as on December 31, 2019. Financial Services and Consumer Goods were the two largest sectors of the Nifty200 Momentum 30 Index as of December 2019, compared with Consumer Goods and Pharma as on August 31, 2020. The Financial Services sector had outperformed the broader market through 2019 – the Nifty Financial Services Index returned 24.4% vs 8.3% for the Nifty 200 in CY 2019.

Hence the Financial Services had a higher weight in the Nifty200 Momentum 30 Index as of December 2019. However, H1 2020 saw a change in market leadership, with Financial Services underperforming and Pharma outperforming. Now the Nifty200

Momentum 30 Index has adapted itself, and currently the Pharma sector's weight in the Index has increased to 32.5% as of August 31, 2020, from 7.9% as of December 31, 2019.

Exhibit 7: Sector weight of the Nifty200 Momentum 30 Index on August 31, 2020 and December 31, 2019

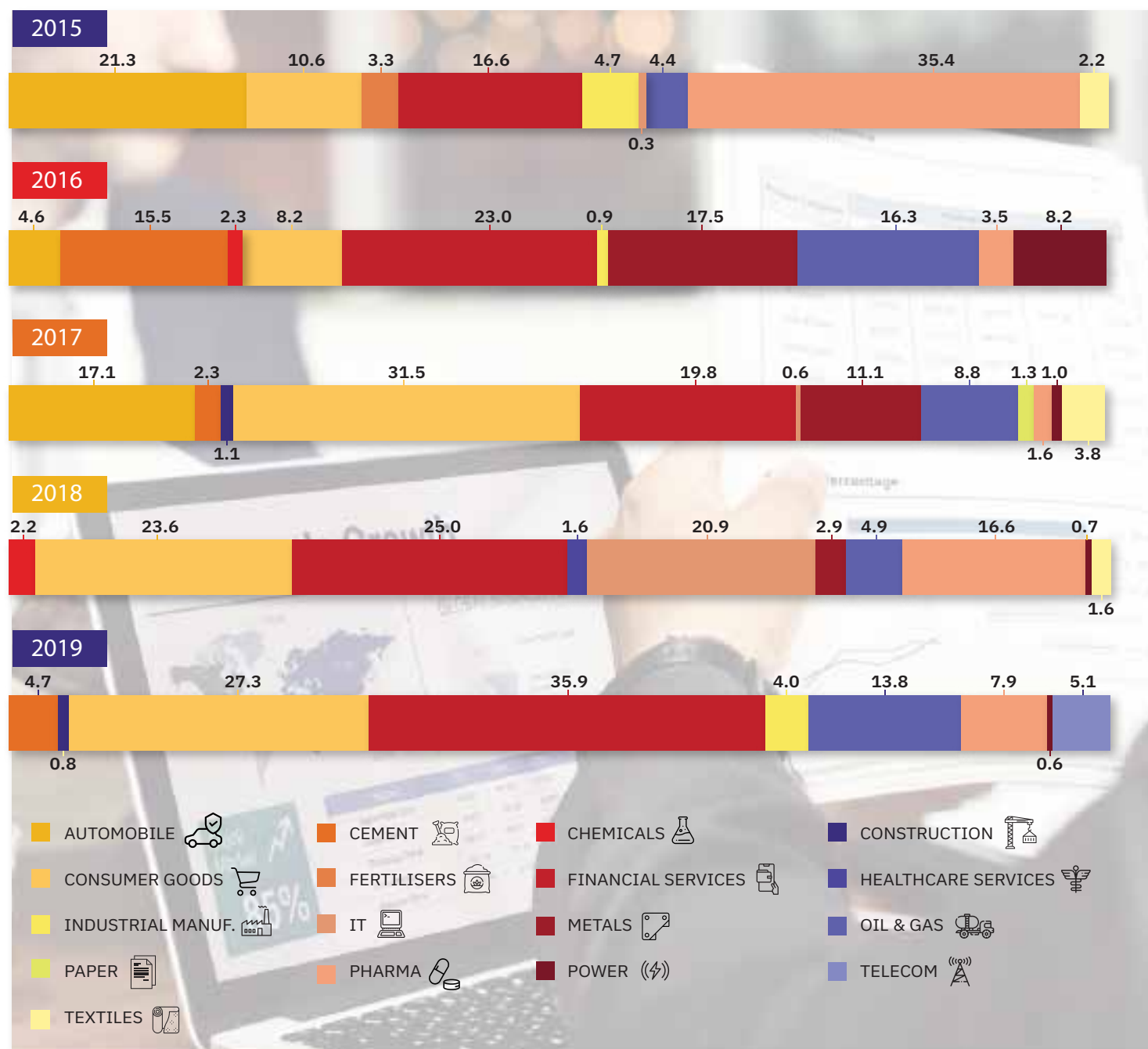


Source: NSE Indices. Data as of August 31, 2020 and December 31, 2019

Further examples of how the sector weights of the Nifty200 Momentum 30 Index have varied through time are given below. Each column chart represents

the portfolio of the Index as on December 31 of the relevant calendar year.

Exhibit 8: Sector weight of the Nifty200 Momentum 30 Index on December 31 for previous 5 calendar years



Source: NSE Indices

In the exhibit above, we can see how the sector weights have changed through time. For example, on December 31, 2017, the Automobile sector had 17.1% weight, but this reduced to zero as of end CY 2018 and CY 2019. Additionally, the Index has always had some exposure to the Consumer Goods and Financial Services sectors over the last 5 years,

though the weights have varied significantly through the periods. For example, as of end CY 2016, Consumer Goods had 8.2% weight and one year later the weight increased to 31.5%. The idea is that Nifty200 Momentum 30 Index seeks to capture those sectors that exhibit higher momentum.

Signing off



The Nifty200 Momentum 30 Index tracks the performance of stocks that are part of the Nifty 200 Index, and have high normalised momentum scores



The normalised momentum score is based on 6-month and 12-month price return, adjusted for its daily price return volatility



The Index adapts to changing market conditions and increases the weight to current outperforming sectors – it is currently overweight Consumer Goods and Pharma sectors



Returns outperformance is consistent - it has outperformed its parent Nifty 200 Index 13 out of the last 16 calendar years, 98.3% times on a rolling return basis for 5 year investment horizons and also outperformed the Nifty 200 during the pandemic in CY 2020 till August 31, 2020

The Nifty200 Momentum 30 Index is expected to serve as a reference index, which can be tracked by

passive funds in the form of Exchange Traded Funds (ETFs), index funds and structured products.

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 comprises of broad-based benchmark indices, sectoral indices, strategy indices, thematic indices and customised indices. NSE Indices Limited also maintains 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, NSE IFSC and Singapore Exchange Ltd. (SGX) 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.

For more information, please visit: www.niftyindices.com

Contact details

Analytical contact
Aman Singhanian, CFA, FRM
Vice President and Head – Products (NSE- Indices)
+91-22-26598214
asinghanian@nse.co.in

Business Development contact
Rohit Kumar, FRM
Vice President & Head of Sales –
Index & Market Data
+91-22- 26598386
rohitk@nse.co.in

Disclaimer: All information contained herewith is provided for reference purpose only. NSE Indices Limited (formerly known as India Index Services & Products Limited-IISL) ensures accuracy and reliability of the above information to the best of its endeavors. However, NSE makes no warranty or representation as to the accuracy, completeness or reliability of any of the information contained herein and disclaim any and all liability whatsoever to any person for any damage or loss of any nature arising from or as a result of reliance on any of the information provided herein. The information contained in this document is not intended to provide any professional advice.

Contact:
Email: indices@nse.co.in
Tel: +91 22 26598386
Address: Exchange Plaza, Bandra Kurla Complex,
Bandra (East), Mumbai– 400 051(India)