

WHITE PAPER
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NIFTY Financial Services25/50

Gaining diversified exposure to the financial services sector



Introduction

Financial services firms play a critical role across the economy by facilitating free flow of funds to more productive activities and promoting investments. The Nifty Financial Services Index was designed to capture the performance of India's leading financial services companies. The index includes companies from Banking, Housing Finance, Insurance, NBFC and Stockbroking industries. The new Nifty Financial Services 25/50 Index, derived from the existing Nifty Financial Services Index, is designed to provide a more diversified exposure to the Financial Services sector using more constrained investment limits, typically used in the United States for funds under the Regulated Investment Companies (RIC).

About the Nifty Financial Services 25/50 Index

The Nifty Financial Services 25/50 (Nifty FS 25/50) is a new capped version of the Nifty Financial Services (Nifty FS) index, where 25 refers to the maximum % weight of a single stock in the index, and 50 refers to maximum aggregate % weight for all stocks with individual weight more than 5%. Both indices track the same 20 stocks.

Highlights

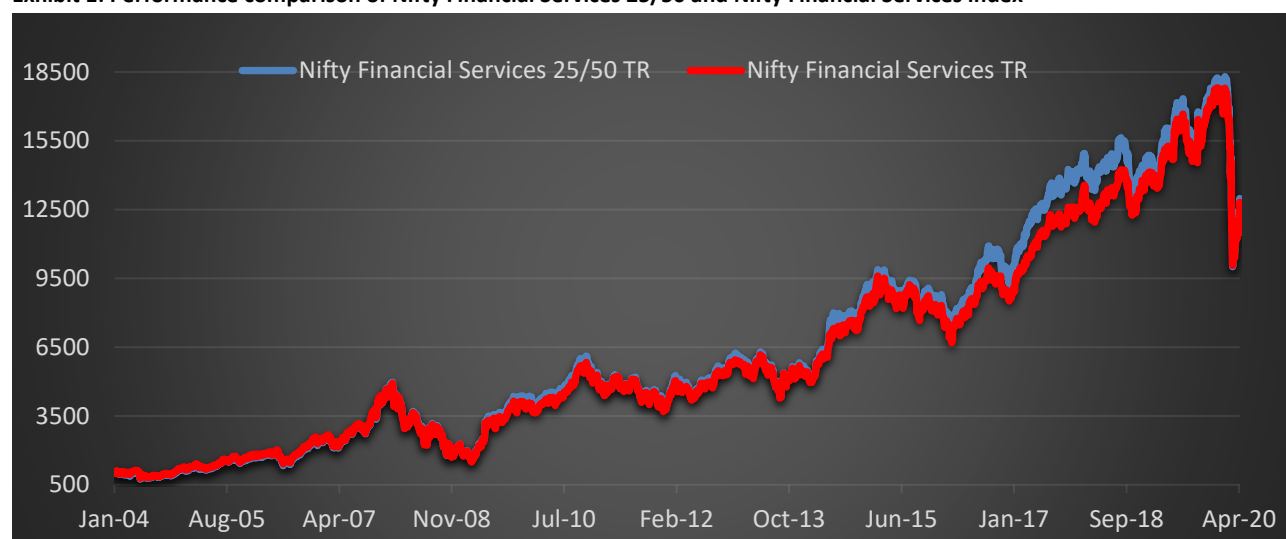
- The index has a base date of January 01, 2004, with a base value of 1000
- Nifty Financial Services is the base index for this index where all stocks forming part of Nifty Financial Services also form part of this index
- Index weight of stocks is based on free-float market capitalization method subject to following weight caps
- Weight of stocks within this index is capped to achieve the following:
 - o Weight of the individual stock should not exceed 25%
 - o Aggregate weight of all the stocks with individual weight above 5% should not exceed 50%
- Index weights are rebalanced on a quarterly basis and implemented on the first working day after the F&O expiry in March, June, September and December
- Nifty Financial Services 25/50 Index takes into account investment limits of a Regulated Investment Company (RIC) in the United States.

The Nifty Financial Services 25/50 Index caps stock weights at levels which are more conservative (lower) than 25% and 50%

The maximum weight limits of 25% and 50% need to be adhered to at each quarter-end. However, Nifty indices are capped on the day following the monthly expiry of the derivatives series, which is typically before the quarter-end. Moreover the capping is based on prices as of five days prior to the rebalance date. Due to this time gap between determining the capped weights and the quarter-end, NSE Indices uses a buffer of 10% to increase the likelihood that weights (due to price movement) at the quarter-end possibly remain below the capped levels. Consequently, the individual stock weight is capped at 22.5% and the maximum value for the aggregate % weight for all stocks with individual weight more than 5% is kept at 45% as on the rebalance date.

The Nifty Financial Services 25/50 Index has marginally outperformed its parent index over long term horizon, but lagged over recent short time horizon

Exhibit 1: Performance comparison of Nifty Financial Services 25/50 and Nifty Financial Services index



Data as of 30th April, 2020

Exhibit 2: Annualized returns, annualized volatility and return-risk ratio of Nifty FS 25/50 and Nifty FS index

Period	CAGR returns		Annualised Volatility		Return-risk ratio	
	Nifty Financial Services 25/50	Nifty Financial Services	Nifty Financial Services 25/50	Nifty Financial Services	Nifty Financial Services 25/50	Nifty Financial Services
Since Jan 2004	17.0%	16.9%	28.6%	29.2%	0.60	0.58
15 years	17.7%	17.3%	28.3%	28.9%	0.63	0.60
10 years	11.1%	11.5%	23.1%	23.0%	0.48	0.50
7 years	11.9%	12.0%	23.4%	23.1%	0.51	0.52
5 years	7.8%	8.3%	22.9%	22.6%	0.34	0.37
3 years	2.1%	6.0%	25.1%	24.7%	0.08	0.24
1 year	-17.3%	-15.3%	38.0%	37.8%	-0.46	-0.41
6 months	-23.2%	-21.8%	48.5%	48.3%	-0.48	-0.45
3 months	-27.1%	-26.1%	68.6%	68.3%	-0.39	-0.38

Data as of 30th April, 2020

Exhibit 2 above captures the annualized returns, volatility and return-risk ratio of Nifty Financial Services 25/50 TR and Nifty Financial Services TR Index. The Nifty Financial Services 25/50 Index has marginally outperformed the Nifty Financial Services Index since inception, with a 17% CAGR return against 16.91% return for the Nifty Financial Services Index. However, in the last 3 years, the Nifty FS 25/50 Index has returned 2.1% CAGR compared to 6% CAGR for the Nifty FS Index. The reasons for the same are explained later.

Likewise, we observe that the Nifty FS 25/50 Index has been marginally less volatile since inception (28.6% vs 29.2% for the Nifty FS Index). However, it has been slightly more volatile over the last 3 years, with volatility of 25.1% against 24.7% for the Nifty FS Index.

The investment constraints applied in the Nifty 25/50 FS Index boost its industry and stock diversification

The investment limits of 25% and 50% described above result in the Nifty FS 25/50 Index being more diversified than its parent Index. By capping individual stocks at 25%, and ensuring the sum of weights of all stocks with individual weight above 5% does not exceed 50%, smaller stocks which have relatively less weight in the Nifty FS Index get higher representation in the Nifty FS 25/50 Index. Thus, the Nifty FS 25/50 Index is more diversified than the Nifty FS Index and offers more distributed exposures to all financial services stocks.

The results of the investment constraints applied in the Nifty 25/50 FS Index on industry distribution and stock concentration are given below:

1) Comparison of industry exposure between the Nifty FS 25/50 Index and Nifty FS Index

Exhibit 3: Basic-Industry level exposure of Nifty FS 25/50 and Nifty FS index as April 30, 2020

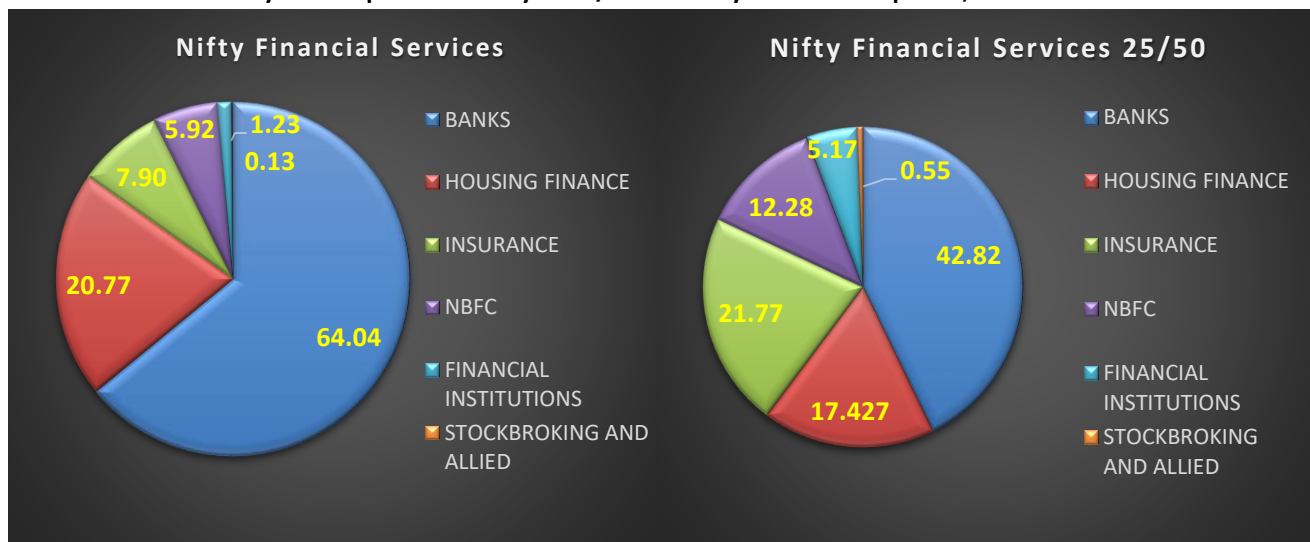
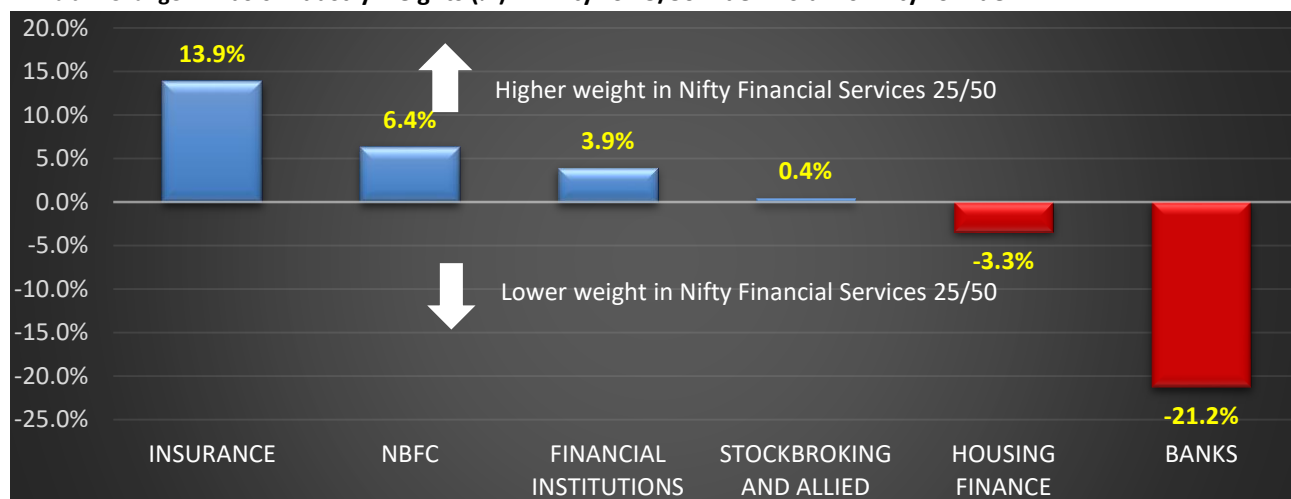


Exhibit 3 above shows the basic-industry level exposure of Nifty Financial Services 25/50 and Nifty Financial Services index as on April 30, 2020. The Nifty FS 25/50 Index has a more diversified industry exposure than its parent Nifty FS Index. The two largest industries, Banks and Insurance, account for 65% of the Nifty FS 25/50 Index. However, in the Nifty FS Index, the two largest industries, Banks and Housing Finance, together account for 85% of the index.

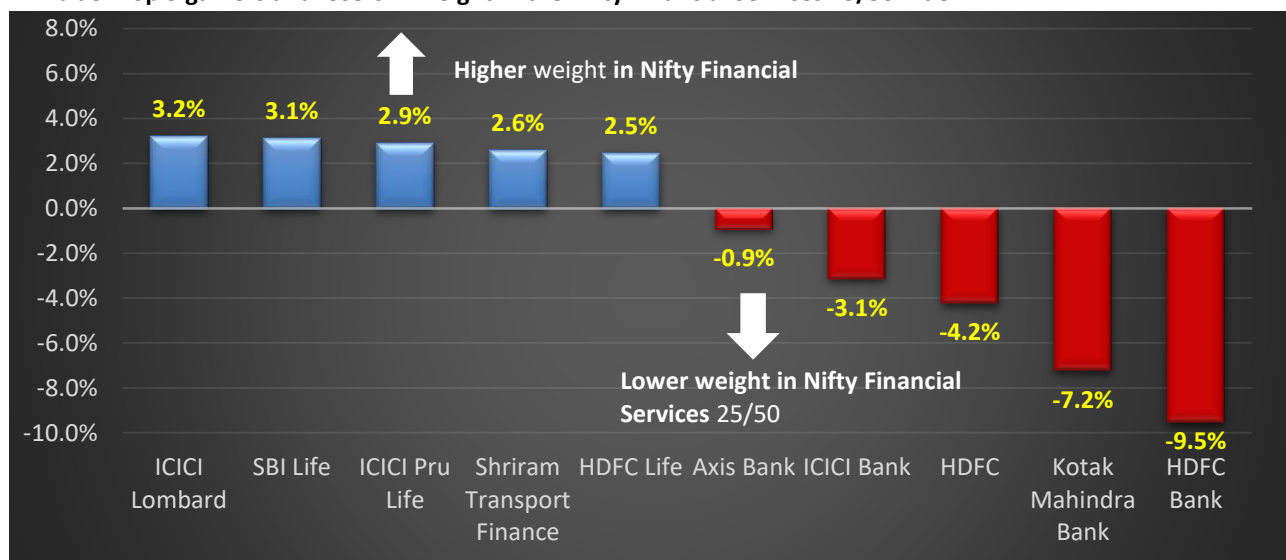
Exhibit 4: Change in Basic-Industry weights (%) in Nifty FS 25/50 Index vis-à-vis Nifty FS Index



Data as of 30th April 2020

The exhibit 4 above shows the change in weights of basic industry due to different capping mechanism. In terms of specific basic industries, the Insurance industry's weight increased the most; its weight is up 13.9% in the Nifty FS 25/50 Index compared to the parent Index. Meanwhile, Banks' weight reduces by 21.2% in the Nifty FS 25/50 Index compared to the parent index.

Exhibit 5: Top 5 gainers and losers in weight in the Nifty Financial Services 25/50 Index



Data as of 30th April 2020

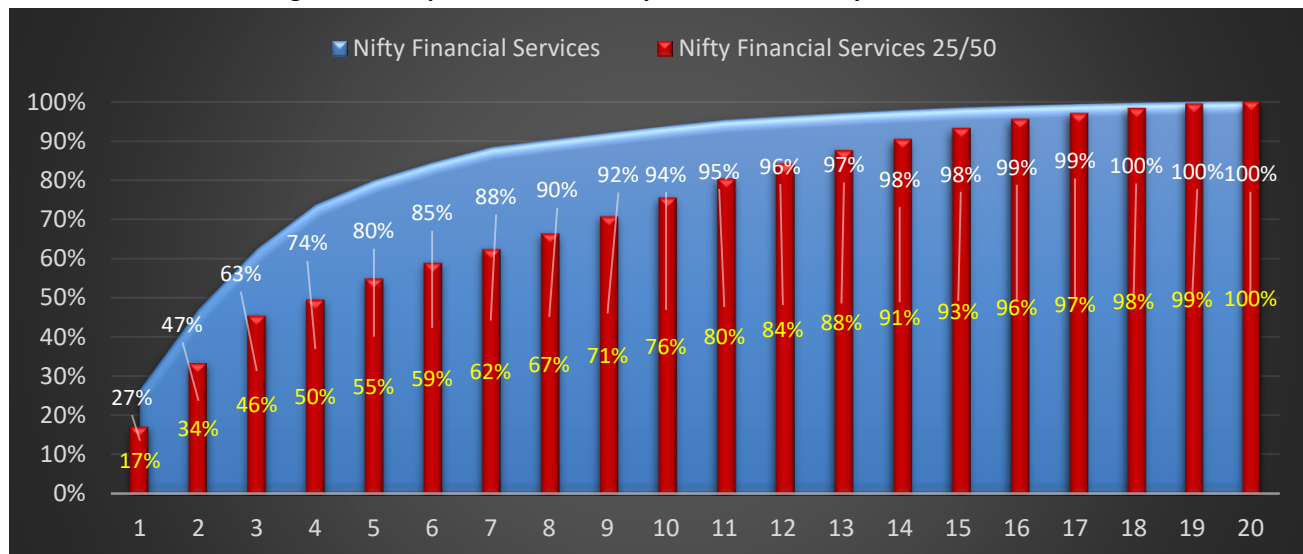
The exhibit 5 above shows the top 5 gainers and losers by weight at a stock level, between the Nifty FS 25/50 Index and Nifty FS Index. For example, ICICI Lombard's weight has gone up the most in the Nifty FS 25/50 Index relative to the Nifty FS Index. Its weight has gone up by almost 3.2% (4.8% in Nifty FS 25/50 Index versus 1.6% in Nifty FS Index). Thus the weights of stocks with relatively less weight in the Nifty FS Index gain from the weight redistributed from private banks and Housing Finance Companies, which have relatively higher weights in the Nifty FS Index.

2) Comparison of stock concentration between Nifty FS 25/50 Index and Nifty FS Index

Stocks weights are more evenly distributed in the Nifty FS 25/50 Index compared to the Nifty FS Index. For example, the exhibit 6 below shows the largest 5 stocks by weight account for 55% weight of the Nifty FS 25/50 Index compared to 80% in the Nifty FS Index. Similarly, the largest 10 stocks by weight have a 76% weight in the Nifty FS 25/50 Index as against 94% in the Nifty FS Index. Furthermore, the Herfindahl – Hirschman Index¹, a measure of index concentration, is 917.5 for the Nifty FS 25/50 Index compared to the 1587.5 for the parent index (a lower number indicates a more diversified portfolio). Thus, the Nifty FS 25/50 Index provides more diversification at a stock level.

¹ Herfindahl Hirschman Index (HHI) measures of concentration. Calculated as sum of squares of percentage weight of each stock in the portfolio

Exhibit 6: Cumulative weight of the top stocks within Nifty FS 25/50 and Nifty FS Index

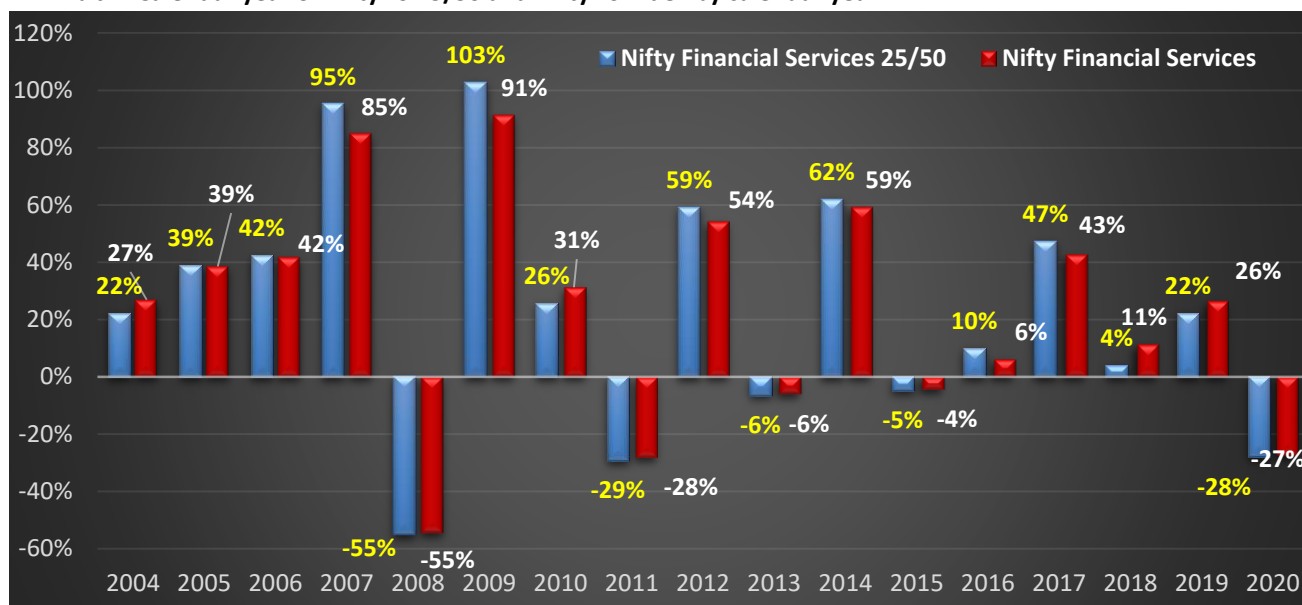


Data as of 30th April 2020

Reasons for underperformance of the Nifty FS 25/50 Index in recent periods

The Nifty FS 25/50 Index has slightly underperformed the Nifty FS Index over the last 3 years (2.1% vs 6% CAGR for the Nifty FS Index). A look at the performance by calendar year in the exhibit 7 below shows us which years the underperformance was concentrated.

Exhibit 7: Calendar year of Nifty FS 25/50 and Nifty FS Index by calendar year



Data as of 30th April 2020

We observe that after outperforming in 2017, the Nifty FS 25/50 index underperformed its parent index in 2018. Underperformance occurred in 2019 and 2020 YTD as well, but to a lesser extent than 2018.

Due to the 25/50 investment constraints applied to Nifty FS 25/50 Index, in mid-2018, as compared to the parent Index, the Nifty FS 25/50 Index had relatively lower exposure to Banks and consequently higher weight to NBFCs (as can be seen in table below). As the NBFC crisis unfolded from September 2018 onwards, NBFCs underperformed Banks. This underperformance of NBFCs largely caused the underperformance of the Nifty FS 25/50 Index against its parent index, the Nifty FS Index, over the last 3 years on a point-to-point return basis.

Exhibit 8: Differences between basic- industry weights of Nifty FS 25/50 and Nifty FS Index in April 2018

Basic Industry	Nifty FS 25/50 Index	Nifty FS Index	Difference in weights
BANKS	40.7%	61.2%	-20.5%
FINANCIAL INSTITUTION	3.7%	1.3%	2.5%
HOUSING FINANCE	21.9%	24.0%	-2.1%
INSURANCE	10.3%	4.1%	6.1%
NBFC	17.7%	7.4%	10.3%
OTHER FINANCIAL SERVICES	3.0%	1.0%	2.0%
STOCKBROKING AND ALLIED	2.6%	0.9%	1.7%

Data as of April 02, 2018

Signing off...

The Nifty Financial Services 25/50 Index, with its additional investment limits constraints of 25% and 50%, offers exposure to the growing financial services sector with more diversification at an industry and stock level than the Nifty Financial Services Index. At the industry level, as compared to its parent index, the Nifty FS 25/50 Index has relatively lower exposure to Banks and Housing Finance companies and higher exposure to Insurance, NBFCs and Financial Institutions. It's HHI Index value of 917.5 is lower than the Nifty FS Index value of 1578.51 signifying higher diversification at stock level. This is achieved as at the stock level, the Nifty FS 25/50 Index has a weight cap of 25% for top stocks. Another metric which shows the increased diversification at the stock level is the largest 5 stocks by weight accounting for 55% weight of the Nifty FS 25/50 Index, compared to 80% in the Nifty FS Index. Again, this is due to the additional capping mechanism of the Nifty FS 25/50 Index. This higher diversification is available with almost similar long-term historical performance to the Nifty FS Index, in terms of returns and volatility. The Nifty FS 25/50 Index has slightly outperformed the Nifty FS Index over a long horizon (15+ years). However, on a shorter horizon of the last 3 years, the Nifty FS 25/50 Index has underperformed the Nifty FS Index, due to former's lower exposure to Banks and higher exposure to NBFCs, particularly in the 2018/19 period.

The Nifty Financial Services 25/50 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 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 Singhania, CFA, FRM

Vice President and Head – Products (NSE-Indices)

+91-22-26598248

asinghania@nse.co.in

Business Development contact

Rohit Kumar, FRM

Vice President & Head of Sales – Index & Market Data

+91-22- 26598386

rohitk@nse.co.in

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Contact:

Email: indices@nse.co.in

Tel: +91 22 26598386

Address: Exchange Plaza, Bandra Kurla Complex,
Bandra (East), Mumbai– 400 051(India)