



**IISL**

India Index Services & Products Ltd.



# **Methodology Document of NIFTY Quality 30 Index**

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# NIFTY Quality 30 Index

## Introduction:

IISL endeavours to provide investors with indices that can help them to make a fair assessment of various themes or styles of investment., IISL has developed a “NIFTY Quality 30” index based on the ‘Quality’ parameter as part of its continuous efforts of bringing new indices.

The ‘Quality’ investment strategy aims to cover companies which have durable business model resulting in sustained margins and returns. To achieve this, the Index constituents are selected based on indicators like Return on Equity, Debt equity ratio and average growth in PAT in previous three years. NIFTY Quality 30 Index consists of 30 stocks selected on the basis of quality score from a diverse pool of 100 large and liquid securities.

This index will serve as ideal benchmark for passive investments based on ‘Quality’ investment theme. The asset management companies can launch ETFs or other financial products on the NIFTY Quality 30 index providing opportunity for investors to invest in ‘Quality’ companies as defined earlier.

## Index Construction & Review Methodology:

The NIFTY Quality 30 index is calculated using free float market capitalization methodology. The weightage of the index constituents is capped at 10%. The index has a base date of October 1, 2009 and a base value of 1000. Constituents for NIFTY Quality 30 Index is chosen from the pool of 100 securities post applying initial selection criteria as described below.

### Initial Universe selection

- Initial selection of companies with Top 200 rank by FF Mcap and Average Daily Turnover
- Companies with trading frequency of less than 90% in previous 6 months are excluded.
- Posts applying above criteria, pool of top 100 companies are selected by average free-float market capitalization in the last six months.

### Security selection:

100 stocks selected on the basis of the aforementioned criteria’s and further analyzed as

- Companies which incurred loss (negative PAT) in any of previous 3 financial years are excluded
- Quality score is calculated on the basis of Return on equity (ROE), Debt equity ratio (D/E) and Average change/growth in PAT in the previous 3 financial year.

- Latest fiscal year data is considered for the calculation of ROE and D/E ratio. Average change in PAT in previous 3 financial years is calculated using latest 4 years or financial year data. Consolidated financials are used wherever available else standalone financials is taken into consideration.
- Minimum 2 year financial results should be available for a company for it to be analyzed and included in Index. This will allow the early inclusion of Quality IPOs.
- All the parameters are winsorised by 5% on both sides with an aim to remove the outliers on both extremities.
- Z score of each parameter for each security is calculated as per following formula

$$\frac{(x - \mu)}{\sigma}$$

Where;

X is winsorised variable of the security

$\mu$  is mean of the winsorised parameter

$\sigma$  is the std. deviation of winsorised parameter

- Average weighted Z score is calculated for all securities as per the following formula

Weighted Z score = .4 \* Z score of ROE + .4 \* - (Z score of D/E) + .2 \* Z score of % PAT increase

Only 20% weight is given to “Average Increase in PAT” to reduce the biasness of the parameter towards smaller companies. Negative Z score is considered for D/E ratio since lower the ratio, better is the health of the company

- Quality score is calculated for all securities from the average Z score. The aim of the quality score is to convert all Z score to positive factor

Quality Score = (1 + Average Z score) if Avg. Z score > 0

(1 - Average Z score)<sup>-1</sup> if Avg. Z score < 0

- Companies which are not IRDA dividend norm compliant have been excluded from October 2014 onwards.
- Top 30 companies are selected on the basis of Quality score for NIFTY Quality 30 Index.

#### Index Inception and rebalancing rule:

- The index has been created since October 1, 2009 with a base of 1000.
- Rebalancing will be done on an annual basis in the month of October.

- Index will have buffer of 100% (Rank-60) on quality score during rebalancing. Aim is to reduce the churn in the portfolio. For example if a security present in the Index is ranked 59 in current rebalancing period, the security will be retained.
- In case of corporate events, impacted security will be removed and replaced by the next higher ranked (on the basis of quality score) security as per the previous annual rebalancing. Security will only be considered if it still satisfies Top 100 company criteria for NIFTY Quality 30 index

### **Calculation Methodology**

The index is calculated using free float market capitalization methodology.

### **Capping:**

Each constituent in the index is capped at 10%. This means that at the time of rebalancing of the index, no single constituent shall have weightage of more than 10%. The capping factor of stocks is realigned upon change in equity, investible weighted factor (IWF), replacement of scrips in the index, periodic rebalancing and on a quarterly basis after the expiry of the F&O contracts in March, June, September and December.

In the event of weight realignment, capping factors will be calculated for all constituents whose uncapped weight is greater than 10%. Weightage of such constituent may increase beyond 10% between the rebalancing periods depending on the price movement. The capping factor is calculated considering the closing prices of the index constituents 5 working days prior to the effective date of the changes.

### **Index Maintenance:**

Index maintenance plays a crucial role in ensuring the stability of the index.

IISL has constituted an Index Policy Committee, which is involved in the policy and guidelines for managing the IISL indices. The Index Maintenance Sub-Committee makes all decisions on additions and deletions of companies in the index within the policies and guidelines prescribed by the Index Policy Committee.

Changes in the index level reflect changes in the market capitalization of the index which are caused by stock price movements in the market. They do not reflect changes in the market capitalization of the index, or of the individual stocks, that are caused by corporate actions such as dividend payments, stock splits, mergers, or acquisitions etc.

When a stock is replaced by another stock in the index, the index divisor is adjusted so the change in index market value that results from the addition and deletion does not change the index level.

### **Calculation Frequency**

The index is calculated and disseminated through its trading terminals and website on real time basis on all days that the National Stock Exchange of India is open for trading in equity shares.

### **Corporate Actions and Share Updates**

Maintaining the index include monitoring and completing the adjustments for company additions and deletions, share changes, stock splits, stock dividends etc. Some corporate actions, such as stock splits and stock dividends, require simple changes in the common shares outstanding and the stock prices of the companies in the index. Other corporate actions, such as share issuances, change the market value of an index and require a divisor adjustment to prevent the value of the index from changing.

Adjusting the divisor for a change in market value leaves the value of the index unaffected by the corporate action. This helps keep the value of the index accurate as a barometer of stock market performance, and ensures that the movement of the index does not reflect the corporate actions of the companies in it. Divisor adjustments are made after the close of trading and after the calculation of the closing value of the index.

Corporate actions such as splits, stock dividends, rights offerings, and share changes are applied on the ex-date.

All singular instances of share changes arising out of additional issue of capital, such as ESOPs, QIPs, ADR/GDR issues, private placements, warrant conversions, and FCCB conversions, which have an impact of 5% or more on the issued share capital of the security are implemented after providing a five working days' prior notice. Share repurchase (buyback) also have the same rules as applicable to share changes.

Changes entailing less than 5% impact on the issued share capital or a free-float are accumulated and implemented from the first working day after F&O expiry of March, June, September and December after providing five working days' prior notice.

At the time of every rebalancing that is resulted on account of change in the index constituents, change in equity, changes in IWFs and payment of special dividend (dividend amount more than 10% of the market price), weights of each scrip are realigned to 10% by making a suitable divisor adjustment.

### **Currency of Calculation**

For calculation of the index, all prices in Indian rupees are considered.

### Investible Weight Factors (IWFs):

IWF as the term suggests is a unit of floating stock expressed in terms of a number available for trading and which is not held by the entities having strategic interest in a company. Higher IWF suggest greater number of shares held by the investors as reported under public category within a shareholding pattern reported by each company.

The IWFs for each company in the index are determined based on the public shareholding of the companies as disclosed in the shareholding pattern submitted to the stock exchanges on quarterly basis from March, June, September and December effective after the expiry of the F&O contracts. The following categories are excluded from the free float factor computation:

- Shareholding of promoter and promoter group
- Government holding in the capacity of strategic investor
- Shares held by promoters through ADR/GDRs.
- Strategic stakes by corporate bodies
- Investments under FDI category
- Equity held by associate/group companies (cross-holdings)
- Employee Welfare Trusts
- Shares under lock-in category

Example: For XYZ Ltd.

	Shares	%
Total Shares	1,00,00,000	100.00

	Shares	%
Shareholding of promoter and promoter group	19,75,000	19.75
Government holding in the capacity of strategic investor	50,000	0.50
Shares held by promoters through ADR/GDRs.	2,50,000	2.50
Equity held by associate/group companies (cross-holdings)	12,575	0.13
Employee Welfare Trusts	1,45,987	1.46
Shares under lock-in category	14,78,500	14.79

$$\text{IWF} = [1,00,00,000 - (19,75,000 + 50,000 + 2,50,000 + 12,575 + 1,45,987 + 14,78,500)] / 1,00,00,000. = \mathbf{0.61}$$

## Index Calculation:

### Price Index Calculations

The index is calculated using free float market capitalization methodology. At the time of rebalancing of shares/ change in index constituents/ change in investable weight factors (IWFs), the weightage of the index constituent (where applicable) is capped at 10%. Weightage of such stock may increase between the rebalancing periods.

Index Market Capitalization = Total shares outstanding \* Price \* IWF \* Capping Factor

**PR Index Value** =  $\frac{\text{Current Index market capitalization}}{\text{Base Market Capital}} * \text{Base Index Value (1000)}$

Base market capital of the Index is the aggregate market capitalisation of each scrip in the index during the base period. The market capitalization during the base period is equated to an Index value of 1000 known as the base Index value.

### Total Return (TR) Index Calculation:

The index reflects the return one would get if an investment is made in the index portfolio. As the index is computed real-time, it takes into account only the stock price movements. However, the price indices do not consider the return from dividend payments of index constituent stocks. Only the capital gains and losses due to price movement are measured by the price index. In order to get a true picture of returns, the dividends received from the index constituent stocks also need to be included in the index movement. Such an index, which includes the dividends received, is called the total return index. The total return index reflects the returns on the index from stock prices fluctuation plus dividend payments by constituent index stocks.

The total return version of the index is also available, which assumes dividends are reinvested in the index after the close on the ex-date. Corporate actions like dividend announcement do not require any adjustment in the normal price index (other than special dividend). Special dividend refers to a dividend that's more than 10% of close price of a stock declaring dividend. A suitable divisor adjustment is made in case of a special dividend.

A separate Total Returns Index (TR) is calculated which shows the returns on Index portfolio, inclusive of dividends.

Calculation of the TR Index:

$$TR\ Index = Previous\ TR\ index * \left[ 1 + \left( \frac{(Today's\ PR\ Index + Indexed\ Dividend)}{Previous\ PR\ Index} - 1 \right) \right]$$

*Where,*

Index dividend for the 'T' day =  $\frac{\text{Total Dividends of the scrips in the Index}}{\text{Index divisor for the day}}$

Total dividends of scrips in the Index =  $\Sigma$  (Dividend per share \* Modified index shares)

Modified index shares = Total shares outstanding \* IWF \* Capping Factor (if applicable)

## **Index Governance:**

### **Index Committee**

A professional team at IISL manages the index. There is a three-tier governance structure comprising the Board of Directors of IISL, the Index Policy Committee, and the Index Maintenance Sub-Committee. IISL has constituted the Index Policy Committee, which is involved in the policy and guidelines for managing IISL indices. The Index Maintenance Sub-committee makes all decisions on additions and deletions of companies in the Index.

### **Index Policy**

The indices use transparent, researched and publicly documented rules for its maintenance. These rules are applied regularly to manage changes to the indices. Index reviews are carried out periodically to ensure that each security in the index fulfills eligibility criteria.

### **Announcements**

All index-related announcements are posted on the websites of IISL and NSE. Changes impacting the constituent list are also posted on the Web site. Please refer to the [www.niftyindices.com](http://www.niftyindices.com) and [www.nseindia.com](http://www.nseindia.com).

### **Holiday Schedule**

For the calculation of indices, the IISL follows the official holiday schedule. A complete holiday schedule for the year is available on the IISL and NSE website. Please refer to the [www.niftyindices.com](http://www.niftyindices.com) and [www.nseindia.com](http://www.nseindia.com).

### **Data Source**

Prices of index constituents are sourced from NSE

### **Index Recalculations**

All NIFTY family of indices are recalculated whenever errors occur. Users of the NIFTY indices are notified through appropriate channel of communication.

### **Market Feedback & Index Methodology Review**

IISL is committed to ensure that all NIFTY indices are relevant for the market participants. In order to ensure this, IISL on an on-going basis interacts with the stakeholders inviting the feedback through various channels of communication. The feedback received from the market participants forms a key input for all index related aspects.

Review of methodology of NIFTY indices is carried out on an annual basis. Additionally, IISL also considers any feedback that it may receive with regards to index methodology as

part of on-going market interactions. Any changes to the index methodology is approved by the Committee and the same is announced through a press release.

## **Other**

In case of a market stress or disruption, IISL will review and deal with the situation on consultative basis with the National Stock Exchange of India Ltd. (NSE) as NSE is source for price data for computation of equity indices.

All indices are expected to reflect the performance of a basket of stocks selected based on the defined guidelines and theme. Every index user is advised to evaluate the benefits of index and take an informed decision before using the index for self or creation of index-linked products. IISL does not accept any liability for any losses, claims, expenses etc. that may be incurred by any person as a result of usage of NIFTY family of indices as a result of reliance of the ground rules, any errors or inaccuracies.

## **Index Precision**

The level of precision for index calculation is as follows:

- Shares outstanding are expressed in units
- Investible weight factors (IWFs) are expressed in two decimals
- Capping factors are expressed in six decimals
- Float-adjusted market capitalization is stated to two decimal places
- Index values are disseminated up to two decimal places

## Index Dissemination

### Tickers

Index	Bloomberg	Reuters
NIFTY Quality 30	NSEQTY30	.NIFQTY30

### Web site

Daily index values, index constituents, methodology, and press releases are available on [www.niftyindices.com](http://www.niftyindices.com) and [www.nseindia.com](http://www.nseindia.com).

## About Us:

### **About National Stock Exchange of India Limited (NSE):**

The National Stock Exchange (NSE) is the leading stock exchange in India and the fourth largest in the world by equity trading volume in 2015, according to World Federation of Exchanges (WFE). NSE was the first exchange in India to implement electronic or screen-based trading. It began operations in 1994 and is ranked as the largest stock exchange in India in terms of total and average daily turnover for equity shares every year since 1995, based on SEBI data. NSE has a fully-integrated business model comprising our exchange listings, trading services, clearing and settlement services, indices, market data feeds, technology solutions and financial education offerings. NSE also oversees compliance by trading and clearing members with the rules and regulations of the exchange. NSE is a pioneer in technology and ensures the reliability and performance of its systems through a culture of innovation and investment in technology. NSE believes that the scale and breadth of its products and services, sustained leadership positions across multiple asset classes in India and globally enable it to be highly reactive to market demands and changes and deliver innovation in both trading and non-trading businesses to provide high-quality data and services to market participants and clients.

### **About India Index Services & Products Ltd. (IISL):**

India Index Services & Products Ltd. (IISL), a subsidiary of NSE, provides a variety of indices and index related services for the capital markets. IISL focuses upon the index as a core product. IISL owns and manages a portfolio of indices under the NIFTY brand of NSE, including the flagship index, the NIFTY 50. IISL equity Indices comprises of broad-based benchmark indices, sectoral indices, strategy indices, thematic indices and customised indices. IISL also maintains fixed income indices based on Government of India securities, corporate bonds and money market instruments. Many investment products based on IISL indices have been developed within India and abroad. These include index based derivatives traded on NSE, Singapore Exchange Ltd. (SGX), Chicago Mercantile Exchange Inc. (CME), Osaka Exchange Inc. (OSE), Taiwan Futures Exchange (TAIFEX) 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](http://www.niftyindices.com).