

## Performance of Indian National Stock Exchange Indices : A Comparative Analysis

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### Abstract

Academic studies have found that mutual fund managers fail to beat their respective benchmark index. As a result, index investing is considered a better alternative. This paper examines the long run performance of selected 27 stock indices operational at NSE (National Stock Exchange, India) to determine the best performing index in each category, thereby, recommending the best index for a passive investor to be considered as a benchmark or for to invest in an ETF based on a particular index for a longer period of time. The annualised return, annualised standard deviation, Sharpe Ratio, Jensen alpha and Carhart four factor alpha has been used for performance evaluation. The results of joint hypothesis suggest that apart from five indices namely CNX NIFTY Junior, CNX Midcap 50, CNX Energy, CNX Service sector and CNX Alpha, CNX Nifty cannot be used to replicate others due to significant differences in return and risk characteristics.

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### I. Introduction

AN INDEX IS a compilation of the prices of a certain number of representative assets to capture overall behavior of the market. The idea of an index was conceived by Charles Dow, who created Dow Jones Industrial Average in 1896. Since then, all stock exchanges across the globe have built their own indices. Indices have multiple uses. Investors follow an index to know overall daily market performance, economists use it to study long run relationships with other economic variables for analyzing and predicting business cycle and growth patterns in the economy, chartists plot and analyze price and volume changes of an index to predict future market direction. Also, Index acts as a benchmark in evaluating the periodic performance of mutual funds. Studies have found that mutual fund

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**Annexure I**  
**Different categories of Indices at NSE and their constituents**

| Index Name                  | Brief Overview                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Broad Market Indices</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CNX Nifty                   | It is a well diversified 50 stock index accounting for 22 sectors of the economy.                                                                                                                                                                                                                                                                                                                                                                  |
| CNX Nifty Junior            | It contains next 50 most liquid securities after CNX Nifty.                                                                                                                                                                                                                                                                                                                                                                                        |
| CNX 100                     | It is a diversified 100 stock index accounting for 38 sectors of the economy. It is a combination of the CNX Nifty and CNX Nifty Junior.                                                                                                                                                                                                                                                                                                           |
| CNX 200                     | It is designed to reflect the behaviour and performance of the top 200 companies measured by free float market capitalization.                                                                                                                                                                                                                                                                                                                     |
| CNX 500                     | It is India's first broad based benchmark of the Indian capital market comprising top 500 companies.                                                                                                                                                                                                                                                                                                                                               |
| Nifty Midcap 50             | It comprises of 50 midcap stocks.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CNX Midcap                  | It comprises of 100 midcap stocks.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CNX Smallcap                | It is designed to reflect the behaviour and performance of the small capitalized segment of the financial market. It comprises of 100 tradable exchange listed companies.                                                                                                                                                                                                                                                                          |
| <b>Sectoral Indices</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CNX Auto                    | It comprises 15 stocks of the Automobiles sector which includes manufacturers of cars & motorcycles, heavy vehicles, auto ancillaries, tyres, etc., representing about 95.42% of the free float market capitalization of the stocks forming part of the Automobiles sector universe as on June 30, 2014.                                                                                                                                           |
| CNX Bank                    | It comprises 12 most liquid and large capitalized Indian Banking stocks representing about 89.90% of the free float market capitalization of the stocks forming part of the Banking sector universe as on June 30, 2014.                                                                                                                                                                                                                           |
| CNX Energy                  | It includes 10 companies belonging to Petroleum, Gas and Power sub sectors, representing about 82.99% of the free float market capitalization of the stocks forming part of the Energy sector universe as on June 30, 2014.                                                                                                                                                                                                                        |
| CNX Finance                 | It comprises of 15 stocks from financial sector, representing about 76.58% of the free float market capitalization of the stocks forming part of the Finance sector universe as on June 30, 2014.                                                                                                                                                                                                                                                  |
| CNX FMCG                    | It comprises of 15 companies who manufacture products, which are non-durable, mass consumption products and available off the shelf, representing about 82.19% of the free float market capitalization of the stocks forming part of the FMCG universe as on June 30, 2014.                                                                                                                                                                        |
| CNX IT                      | It comprises of 20 Companies whose more than 50% of turnover is generated from IT related activities like IT Infrastructure , IT Education and Software Training , Telecommunication Services and Networking Infrastructure, Software Development, Hardware Manufacturer's, Vending, Support and Maintenance. They represent about 97.25% of the free float market capitalization of the stocks forming part of the IT sector as on June 30, 2014. |
| CNX Metal                   | It comprises of 15 stocks from metal and mining sector, representing about 90.37% of the free float market capitalization of the stocks forming part of the Metals universe as on June 30, 2014.                                                                                                                                                                                                                                                   |
| CNX Pharma                  | It comprises of 10 pharmaceutical companies, representing about 76.97% of the free float market capitalization of the stocks forming part of the Pharmaceutical sector universe as on June 30, 2014.                                                                                                                                                                                                                                               |

CNX PSU Bank It comprises of 12 public sector banks, representing 92.74% of the free float market capitalization of the stocks forming part of the PSU Banks sector Universe as on June 30, 2014.

**Thematic Indices**

CNX Commodities It comprises of 30 companies from the commodities segment which includes sectors like Oil, Petroleum Products, Cement, Power, Chemical, Sugar, Metals and Mining. It represents about 78.40% of the free float market capitalization of the stocks forming part of the Commodities segment universe as on March 28, 2013.

CNX Infrastructure It includes 25 companies belonging to Telecom, Power, Port, Air, Roads, Railways, shipping and other Utility Services providers, representing about 74.97% of the free float market capitalization of the stocks forming part of the infrastructure sector universe as on March 28, 2013.

CNX MNC It comprises 15 listed companies in which the foreign shareholding is over 50% and / or the management control is vested in the foreign company. It represents about 5.92% of the free float market capitalization of the stocks listed on the NSE as on March 28, 2013.

CNX PSE It comprises of 20 listed public sector enterprises, representing about 8.07 % of the free float market capitalization of the stocks listed on NSE as on March 28, 2013.

CNX Service Sector It includes 30 companies belonging to services sector like Computers - Software, IT Education and Training, Banks, Telecommunication -services, Financial Institutions, Power, Media, Courier, Shipping etc. It represents about 80.86% of the free float market capitalization of the stocks forming part of the Service sector universe as on March 28, 2013.

**Strategy Indices**

CNX 100 Equal Weight It comprises of same constituents as CNX 100 Index while the weightage of each stock is fixed at 1%.

CNX Alpha It aims to measure the performance of securities listed on NSE with high Alphas. It comprises of 50 securities with highest alphas, qualifying certain parameters.

CNX Defty It is CNX Nifty, measured in dollars. It helps foreign institutional investors, off-shore funds in calculating returns on their equity investment in dollar terms.

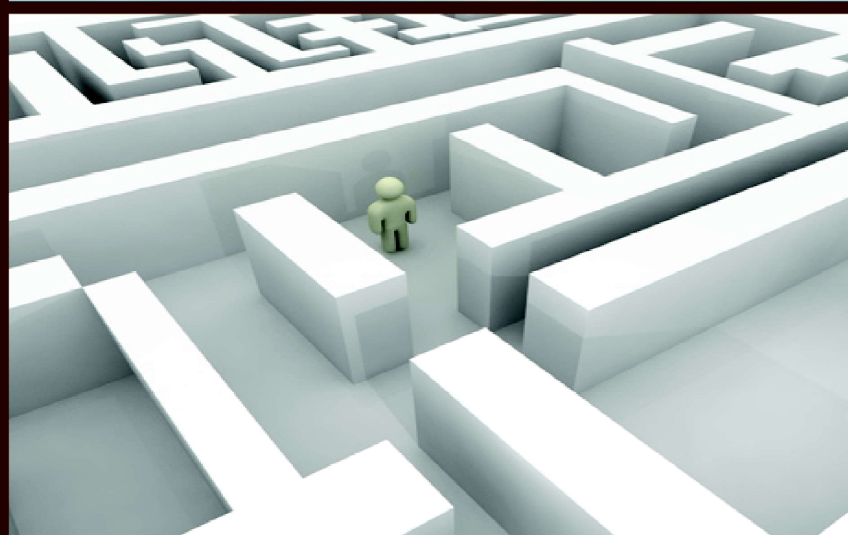
CNX High Beta It comprises of 50 companies having highest beta since last one year, selected from top 300 companies by average free-float market capitalization and aggregate turnover for the last six months.

CNX Low Volatility It comprises of 50 least volatile companies, selected from the top 300 companies by average free-float market capitalization and aggregate turnover for the last six months.

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Source: Compiled from National Stock Exchange (www.nseindia.com)

# Capital Structure Decisions



*Under*  
**Multiple Objectives**  
A STUDY OF INDIAN CORPORATES

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