

Nifty Midcap 150 Index

Tracking the leaders of tomorrow

September 2021

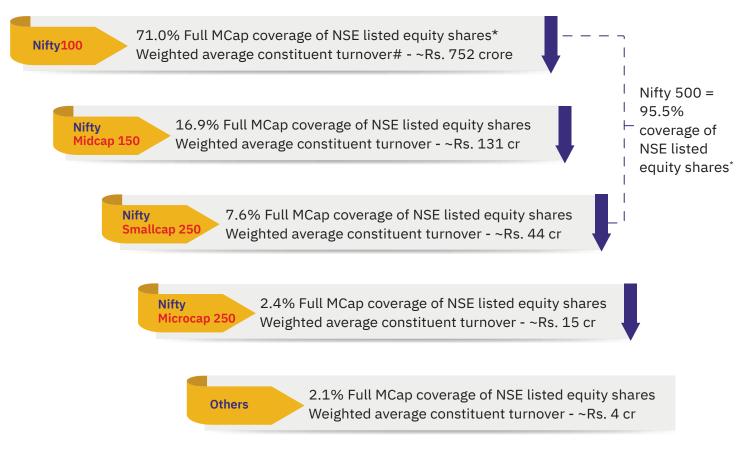


Introduction:

The Nifty Midcap 150 index consists of 150 companies (companies ranked 101-250) based on full market capitalization from the Nifty 500 Index. More than 1600 companies are listed on the Main Board of NSE as of July 30, 2021. This universe of listed stocks can be broadly classified based on their market capitalization as Large cap, Mid cap, Small cap and Micro cap. Large cap, Mid cap and Small cap stocks have always been tracked and analyzed by market participants and stocks analysts and have also been covered by various equity indices that show the performance of these market segments across market phases. For instance, Nifty 100 covers large cap, Nifty Midcap 150 covers the midcap segment and Nifty Smallcap 250 covers the small cap segment,

while Nifty 500 encompasses all three segments together. Recently, NSE Indices Ltd also recently launched the Nifty Microcap 250 Index, that provides investors a gauge to track the microcap segment. Of these segments, Mid cap stocks continue to remain popular as they often have potential to grow sales and profits faster than Large caps due to their relatively smaller size and thus have scope to become the future leaders of tomorrow. NSE Indices Ltd. has several indices which track this dynamic market segment, the broadest of which is the Nifty Midcap 150 Index. The Nifty Midcap 150 Index gives investors access to mid-market capitalization companies across NSE's listed universe.

Exhibit 1: Coverage of NSE's listed universe across broad market indices



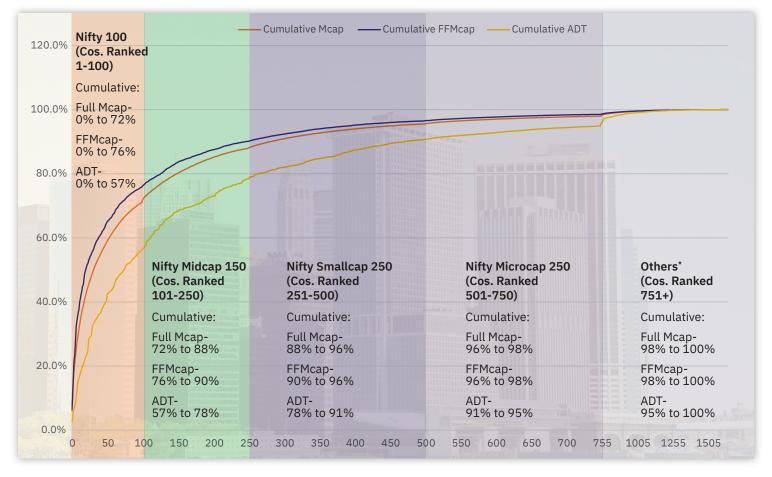
Source: NSE Indices. ADT data obtained between the period Mar 1, 2021 to Aug 31, 2021. Full Market Capitalization data as on Aug 31, 2021. The above image is representative only and has not been drawn to scale. *Stocks with overall 6-month average full market capitalization rank <= 350 and not classified in any index currently due to eligibility issues have been excluded from the eligible universe for the calculations above. #Weighted average constituent turnover is obtained as the weighted average of 6-month ADT of constituents weighted by the constituent weights in the respective indices as on Aug 31, 2021



The Nifty Midcap 150 Index accounts of 16.9% of the full market cap coverage of the listed universe. The Nifty Midcap 150 Index and Nifty 100 Index ie. the largest 1-250 ranked companies, cumulatively account for 88% full market capitalization coverage of NSE's listed universe. The Exhibit below shows this graphically, where the cumulative MCap lines are very

steep for the first orange and green box. In terms of liquidity, the weighted average constituent turnover of the Nifty Midcap 150 Index is ~Rs. 131 crores per day, compared to ~Rs. 752 crores per day for the Nifty 100 Index and ~Rs. 44 crores per day for the Nifty Smallcap 250 Index.

Exhibit 2: Cumulative Full MCap, FFMCap and Average Daily Turnover (ADT) of NSE's listed universe across broad market indices



Source: NSE Indices. ADT data obtained between the period Mar 1, 2021 to Aug 31, 2021. Full Market Capitalization data as on Aug 31, 2021. The above image is representative only and has not been drawn to scale. * Stocks with overall 6-month average full market capitalization rank <= 350 and not classified in any index currently due to eligibility issues have been excluded from the eligible universe for the calculations above.

About the Nifty Midcap 150 Index

The Nifty Midcap 150 Index aims to track the performance of midcap stocks listed or permitted to trade on NSE. The index includes 150 companies (companies ranked 101-250) based on full market capitalization from the Nifty 500 Index. A stock's

weight is based on its free-float market capitalization. The index has a base date of April 01, 2005, with a base value of 1000. The index construction steps are highlighted below:





Exhibit 3: Weight distribution of stocks in the Nifty Midcap 150 Index

Stock attribute	By Full MCap (Rs. Cr.)	By Free float MCap (Rs. Cr.)	By Weight
Largest stock	1,59,747	39,937	2.46
Smallest stock	7,766	1,071	0.07
Median stock	24,281	8,661	0.53

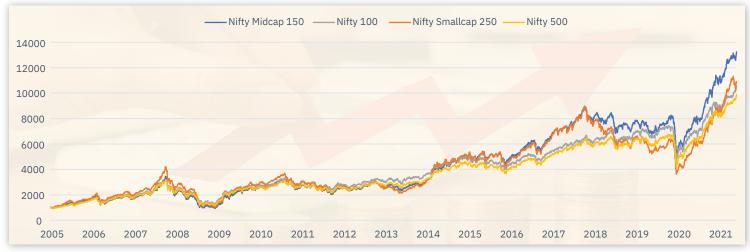
Source: NSE Indices. Data as of Aug 31, 2021

The exhibit above shows the full market capitalization, free float market capitalization and weight of the largest, smallest and median stock in the Nifty Midcap 150 Index as of Aug 31, 2021. The

full market capitalization varies from Rs. 7,766 – 1,59,747 crores and the free float market capitalization varies from Rs. 1,071 – 39,937 crores for the Nifty Midcap 150 Index.

The Nifty Midcap 150 Index has outperformed the Nifty 100 and Nifty 500 Index over the short term and long term

Exhibit 4: Nifty Midcap 150, Nifty 100, Nifty Smallcap 250 and Nifty 500 Index performance



Source: NSE Indices. Data as of Aug 31, 2021



Exhibit 5: Nifty Midcap 150, Nifty 100, Nifty Smallcap 250 and Nifty 500 Index performance table

	CAGR returns (%)			Volatility (%)			Return-risk					
Period	Nifty Midcap 150	Nifty 100	Nifty Smallcap 250	Nifty 500	Nifty Midcap 150	Nifty 100	Nifty Smallcap 250	Nifty 500	Nifty Midcap 150	Nifty 100	Nifty Smallcap 250	Nifty 500
Since Inception	17.0%	15.4%	15.7%	15.0%	21.8%	22.3%	22.3%	21.6%	0.78	0.69	0.70	0.69
15 years	15.4%	13.2%	12.9%	12.9%	21.6%	22.1%	21.9%	21.4%	0.71	0.60	0.59	0.60
10 years	18.4%	14.9%	15.2%	15.0%	17.5%	17.1%	18.9%	16.8%	1.05	0.87	0.80	0.89
7 years	17.9%	13.3%	13.8%	13.8%	18.0%	17.3%	19.8%	17.1%	0.99	0.77	0.70	0.81
5 years	17.2%	15.5%	13.6%	15.5%	18.5%	18.0%	19.9%	17.8%	0.93	0.86	0.68	0.88
3 years	16.1%	14.4%	14.0%	14.6%	20.8%	21.5%	21.6%	21.0%	0.77	0.67	0.65	0.70
1 year	70.0%	52.8%	84.7%	56.9%	17.0%	15.7%	18.4%	15.4%	4.11	3.36	4.61	3.69
6 months	22.3%	19.3%	29.0%	20.3%	15.8%	13.6%	17.7%	13.6%	1.41	1.42	1.64	1.49
3 months	10.8%	10.4%	11.0%	10.5%	11.6%	8.4%	15.3%	8.5%	0.93	1.24	0.72	1.23
YTD	37.3%	24.3%	46.6%	27.4%	16.4%	15.8%	17.0%	15.4%	2.27	1.54	2.74	1.78

Source: NSE Indices. Data as of Aug 31, 2021. Returns based on TRI values. Post Apr 1, 2016, stocks in the Nifty 100, Nifty Midcap 150 and Nifty Smallcap 250 indices are selected based on 6m Avg. Full MCap. Prior to April 1, 2016, there may be overlap between the portfolios of these indices.

Since inception, from April 01, 2005 to Aug 31, 2021, the Nifty Midcap 150 Index has outperformed the Nifty 100, Nifty Smallcap 250 and Nifty 500 Index, returning 17.0% CAGR against 15.4% CAGR, 15.7% CAGR and 15.0% CAGR for the Nifty 100, Nifty Smallcap 250 and Nifty 500 Index respectively. The Nifty Midcap 150 Index has also outperformed the Nifty 100 and Nifty 500 Index over the last 1 year. Over the period Aug 31, 2020 to Aug 31, 2021, the Nifty Midcap 150 Index returned 70.0%, compared to 52.8% for the Nifty 100 Index and 56.9% for the Nifty 500 Index. However, the Nifty Midcap 150 Index has underperformed the Nifty Smallcap 250 Index over this period, returning 70.0% against 84.7% for the Nifty Smallcap 250 Index.

The Nifty Midcap 150 Index's historical volatility has been broadly in line with that of the Nifty 100 Index over various time horizons. For example, over the last 15 years, between Aug 31, 2006 and Aug 31, 2021, the Nifty Midcap 150 Index has had annualized volatility of 21.6% versus 22.1% for the Nifty 100 Index. Over the last 1 year, between Aug 31, 2020 to Aug 31, 2021, the Nifty Midcap 150 Index has had slightly higher annualized volatility of 17.0% compared to 15.7% for the Nifty 100 Index.

The overall higher returns and broadly similar volatility levels over various time horizons results in the Nifty Midcap 150 Index having higher return-risk ratios than the Nifty 100 and Nifty 500 Index over the short and long term. For example, the return-risk ratio for the Nifty Midcap 150 Index over the period Aug 28, 2014 and Aug 31, 2021 is 0.99 against 0.77 for the Nifty 100 Index and 0.70 for the Nifty 500 Index over the same period. However, in the last 1 year period, from Aug 31, 2020 to Aug 31, 2021, the Nifty Smallcap 250 Index had a higher return-risk ratio of 4.61 versus 4.11 for the Nifty Midcap 150 Index.



The Nifty Midcap 150 Index has outperformed the Nifty 100 Index on a rolling return basis over long term horizons

Exhibit 6: Instances of outperformance of Nifty Midcap 150 Index vs Nifty 100 Index on a daily rolling return basis

Percentage of total instances of Outperformance and Underperformance vs Nifty 100 on daily rolling return basis								
	Nifty Midcap 150							
Investment Horizon	Instances of Underperformance vs Nifty 100	Instances of Outperformance vs Nifty 100						
	Excess Return frequency <0% CAGR	Average Underperformance*	Excess Return frequency >=0% CAGR	Excess Return (0-2% CAGR)	Excess Return (2-4% CAGR)		Average Outperformance^	
10 years	3.7%	-0.2%	96.3%	34.8%	50.1%	11.5%	2.5%	
7 years	24.2%	-2.2%	75.8%	9.3%	26.3%	40.3%	4.0%	
5 years	32.2%	-1.6%	67.8%	20.8%	16.3%	30.7%	4.2%	
3 years	45.5%	-4.2%	54.5%	13.1%	9.4%	32.0%	6.2%	
2 years	51.5%	-5.4%	48.5%	4.7%	4.1%	39.7%	9.0%	
1 year	47.1%	-8.6%	52.9%	5.2%	4.7%	42.9%	14.2%	

Source: NSE Indices. Instances of outperformance or underperformance calculated using daily rolling returns. Data as Aug 31, 2021 * Average underperformance is calculated as the simple average of periodic returns for all periodic returns lower than 0%. ^ Average outperformance is calculated as the simple average of periodic returns of at least 0%.

The Nifty Midcap 150 Index has outperformed the Nifty 100 Index more than 50% of the times over

rolling return horizons longer than 3 years, as shown in the exhibit above.



Exhibit 7: Rolling returns of Nifty Midcap 150 and Nifty 100 Index on a daily rolling return basis with a 5-year investment horizon

Source: NSE Indices. Dates on the chart refer to end date of each respective rolling window. Data as Aug 31, 2021



From the exhibit 6 above, based on daily rolling returns, for a 5-year investment horizon, the Nifty Midcap 150 Index has outperformed the Nifty 100 67.8% of the time. The Index average outperformance over rolling 5-year investment horizons has been 4.2% per annum. The frequency of outperformance rises to 96.3% when we consider longer time horizon of 10 years, while the average outperformance drops to 2.5% per annum. However, the outperformance of the Nifty Midcap 150 Index over the Nifty 100 Index is more varied over shorter time frames of 3 years and below. For example, based on daily rolling returns, for a 3-year investment horizon, the Nifty Midcap 150 Index has outperformed the Nifty 100 Index 54.5% of the time, however this drops to 48.5% for a 2-year investment

horizon.

In addition to the high frequency of outperformance, the degree of outperformance of the Nifty Midcap 150 Index over the Nifty 100 Index over long periods of time has also been noteworthy. For the 7-year investment horizon, based on daily rolling return analysis, the excess return of the Nifty Midcap 150 Index was in the range of 0-2% per annum for 9.3% of the instances, excess return ranged between 2-4% per annum for 26.3% of the instances, and excess return exceeded 4% per annum over the Nifty 100 Index in 40.3% of the instances, leading to cumulative 75.8% instances of outperformance over the Nifty 100 Index. The Nifty Midcap 150 Index outperformed the Nifty 100 Index by 4.0% per annum on average for 7-year investment horizons.

Exhibit 8: Average return and standard deviation of daily rolling returns of Nifty Midcap 150 vs Nifty 100 Index

	Average rolling return		Std. Dev. of I	olling return	Rolling Return- Risk Ratio		
Rolling Returns Period	Nifty Midcap 150	Nifty 100	Nifty Midcap 150	Nifty 100	Nifty Midcap 150	Nifty 100	
10 years	14.1%	11.7%	3.1%	2.6%	4.53	4.47	
7 years	14.4%	11.9%	4.6%	2.5%	3.13	4.68	
5 years	14.4%	12.0%	7.0%	4.9%	2.05	2.44	
3 years	13.0%	11.5%	11.1%	7.0%	1.17	1.66	
2 years	14.7%	13.1%	18.7%	14.2%	0.78	0.92	
1 year	20.3%	16.8%	36.5%	26.1%	0.55	0.64	

Source: NSE Indices. Averages and standard deviations calculated using daily rolling returns. Data as Aug 31, 2021

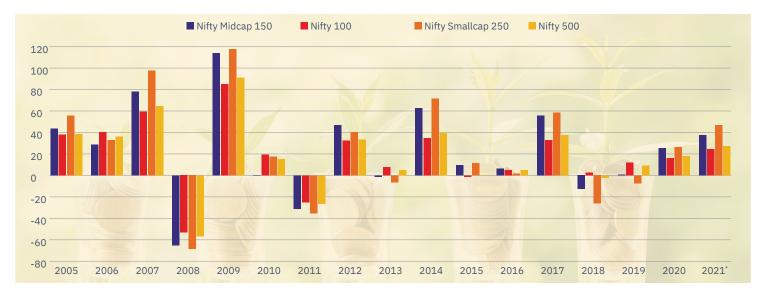
From the table above, based on daily rolling returns, for a 1-year investment horizon, the Nifty Midcap 150 Index has returned an average of 20.3% p.a. compared to 16.8% p.a. for the Nifty 100 Index. The standard deviation of the time series of 1-year rolling returns, based on daily rolling returns, is 36.5% for the Nifty Midcap 150 Index compared to 26.1% for the Nifty 100 Index. Thus, over a 1-year horizon, the rolling return-risk ratio (average rolling return / std.

dev. of rolling returns for a given horizon) is 0.55 for the Nifty Midcap 150 Index vs 0.64 for the Nifty 100 Index. This metric highlights that despite the Nifty Midcap 150 Index having higher average 1-year rolling return, its 'edge' over the Nifty 100 Index diminishes due to the higher volatility of these rolling returns for the 1-year horizon.



We observe a similar pattern of the Nifty Midcap 150 Index having lower rolling return-risk ratios than the Nifty 100 Index up till and including the 7-year investment horizon, despite having higher average rolling returns for each investment horizon till the 7-year point. However, for the 10-year investment horizon, the Nifty Midcap 150 Index has a slightly higher rolling return-risk ratio than the Nifty 100 Index. The Nifty Midcap 150 Index returned an average of 14.1% p.a. compared to 11.6% p.a. for the Nifty 100 Index for a 10-year investment horizon. The standard deviation of the time series of 10-year rolling returns, based on daily rolling returns, is 3.1% for the Nifty Midcap 150 Index compared to 2.6% for the Nifty 100 Index. Thus, the rolling return-risk ratio for a 10-year investment horizon is 4.53 for the Nifty Midcap 150 Index vs 4.47 for the Nifty 100 Index.

Exhibit 9: Performance of Nifty Midcap 150, Nifty 100, Nifty Smallcap 250 and Nifty 500 Index by calendar year



Source: NSE Indices. Data as of Aug 31, 2021. Data for the year 2005 is from April 01, 2005 to December 30, 2005. *YTD data

The Nifty Midcap 150 Index has outperformed the Nifty 100 Index in 10 out of the last 16 calendar years from CY2005-2020. The Nifty Midcap 150 Index tends to outperform the Nifty 100 Index during strong bull market years and recoveries after a market crash. Since 2005, the Nifty 100 Index has returned greater than 30% in 7 calendar years and the Nifty Midcap 150 Index has outperformed the Nifty 100 Index in 6 out these 7 calendar years (outperformed in 2005, 2007, 2009, 2012, 2014 and 2017). The Nifty Midcap 150 Index had its longest run of outperformance against the Nifty 100 Index over 2014-17, when it outperformed consecutively for 4 years. However, the Niftv Midcap 150 Index has generally underperformed the Nifty 100 Index in weak markets. Since 2005, the Nifty Midcap 150 Index has underperformed the Nifty 100 Index in 2 out of the 3 years when the Nifty 100 Index had negative returns

(2008 and 2011). The exception was in 2015, when the Nifty 100 returned -1.3%, but the Nifty Midcap 150 Index outperformed and returned 9.7% in that year.

The Nifty Midcap 150 Index outperformed the Nifty Smallcap 250 Index in 8 out of the last 16 calendar years from CY2005-20. Many of these years of outperformance came in years where the Nifty Smallcap 250 Index posted negative returns. Since 2005, the Nifty Smallcap 250 Index has posted negative returns 5 times and the Nifty Midcap 150 Index has outperformed the Nifty Smallcap 250 Index in each of these 5 years. Notably, the degree of outperformance of the Nifty Midcap 150 Index over the Nifty Smallcap 250 Index during weak market years was considerably higher in 2018 and 2019, compared to prior cases. The Nifty Midcap 150 Index



returned -12.6% in 2018 compared to -26.1% for the Nifty Smallcap 250 Index, outperforming by 13.5%. Similarly, the outperformance over the Nifty Smallcap 250 Index in 2019 was 7.9%. However, in 2013, 2011 and 2008, the outperformance over the Nifty Smallcap 250 Index was 5.2%, 4.1% and 3.6% respectively, which is less than the degree of outperformance in 2018 and 2019.

The Nifty Midcap 150, Nifty 100 and Nifty Smallcap

250 Index all suffered their maximum drawdown since 2005 during the Great Financial Crisis (GFC) of 2008-09. The maximum drawdown for the Nifty Midcap 150 Index was -71.7% compared to -61.1% for the Nifty 100 Index and -72.8% for the Nifty Smallcap 250 Index. More recently, during the pandemic related sell-off in Q1 CY2020, the Nifty Midcap 150 Index had a drawdown of -43.1% compared to -38% for the Nifty 100 Index and -59.8% for the Nifty Smallcap 250 Index.

Relative to the Nifty 100 Index, the Nifty Midcap 150 Index is currently overweight Industrial Manufacturing and Chemicals sectors and underweight Financial Services and IT sectors.

Exhibit 10: Comparison of sector exposure between the Nifty 100, Nifty Midcap 150 and Nifty Smallcap 250 Index (%) on Aug 31, 2021

Sector	Nifty 100	Nifty Midcap 150	Nifty Smallcap 250
FINANCIAL SERVICES	34.7	20.6	15.1
CONSUMER GOODS	12.1	10.5	12.1
🚔 INDUSTRIAL MANUFACTURING	0.2	9.8	11.7
他 CHEMICALS	0.4	7.1	7.2
AUTOMOBILE	4.2	7.0	2.7
	15.7	6.9	10.2
HARMA	4.5	6.5	5.3
🛍 OIL & GAS	10.7	5.0	0.2
🖮 POWER	2.4	3.3	1.2
₿ HEALTHCARE SERVICES	0.6	3.3	1.8
CONSUMER SERVICES	1.6	3.1	4.0
FERTILISERS & PESTICIDES	0.5	3.0	2.1
	2.6	2.8	5.5
E CEMENT & CEMENT PRODUCTS	2.7	2.6	2.0
登 METALS	4.4	2.5	5.0
👰 SERVICES	0.8	2.0	6.1
	2.0	1.4	1.3
MEDIA, ENTERTAINMENT & PUBLICATION	0.0	1.3	1.8
TEXTILES	0.0	1.1	3.8
E PAPER AND JUTE	0.0	0.0	0.8

Source: NSE Indices. Data as of Aug 31, 2021



The largest sector in the Nifty Midcap 150 Index is the Financial Services sector with 20.6% weight, followed by the Consumer Goods sector with 10.5% weight as of Aug 31, 2021. The Nifty Midcap 150 Index is overweight the Industrial Manufacturing and Chemicals sectors by 9.6% and 6.7% respectively compared to the Nifty 100 Index, while it is under-weight the Financial Services and IT sector by -14.7% and -8.8% respectively relative to the Nifty 100 Index. When we compare the sector weight deviations between the Nifty Midcap 150 Index and the Nifty Smallcap 250 Index, we find that compared to the Nifty Smallcap 250 Index, the Nifty Midcap 150 Index is overweight the Financial Services sector by 5.5% and the Oil & Gas sector by 4.8%. Also, the Nifty Midcap 150 Index is under-weight the Services sector by -4.1% and the IT sector by -3.2% relative to the Nifty Smallcap 250 Index.

The Nifty Midcap 150 Index is more diversified than the Nifty 100 Index but less diversified than the Nifty Smallcap 250 Index

In terms of stock level diversification, the Nifty Midcap 150 Index is a more diversified index than the Nifty 100 Index, but less diversified than the Nifty Smallcap 250 Index. The Nifty Midcap 150 Index has a HHI (Herfindahl-Hirschman Index) value of 915.8 compared to 1793.1 for the Nifty 100, and 844.5 for the Nifty Smallcap 250 Index as of Aug 31, 2021. Lower HHI values indicate a more diversified portfolio.

Exhibit 11: Cumulative weight of stocks across the Nifty 100, Nifty Midcap 150 and Nifty Smallcap 250 Index (%)

Cumulative weight of stocks	Nifty 100	Nifty Midcap 150	Nifty Smallcap 250
Top 10% of total no. of constituents	50.2	23.6	25.2
Top 20% of total no. of constituents	66.1	40.0	41.6
Top 50% of total no. of constituents	86.5	73.8	75.1

Source: NSE Indices. Data as of Aug 31, 2021

The greater diversification of the Nifty Midcap 150 Index versus the Nifty 100 Index is visible from the above table. We observe that the top 10% of the number of constituents of the Nifty Midcap 150 Index i.e. the largest 15 stocks ($10\% \times 150$) have 23.6% weight, while the top 10% of the number of constituents of the Nifty 100 Index i.e. the largest 10 stocks have 50.2% weight. Similarly, the top 20% of the number of constituents of the Nifty Midcap 150 Index (largest 30 stocks) have 40.0% weight, while the same figure for the Nifty 100 Index (largest 20 stocks) is 66.1%.



Signing off...



The Nifty Midcap 150 Index includes 150 companies (companies ranked 101-250) based on full market capitalization from the Nifty 500 Index. This index aims to measure the performance of mid-market capitalization companies



Since April 01, 2005 till Aug 31, 2021, the Nifty Midcap 150 Index has returned 17.0% CAGR vs 15.4% CAGR of the Nifty 100 Index and 15.7% CAGR of the Nifty Smallcap 250 Index



The Nifty Midcap 150 Index has outperformed the Nifty 100 Index in 10 out of the last 16 calendar years from CY2005-20



The Nifty Midcap 150 Index has outperformed the Nifty 100 Index on a rolling return basis over long-term horizons - the Nifty Midcap 150 Index has outperformed the Nifty 100 Index 75.8% and 96.3% of times on a rolling return basis using daily returns over 7-year and 10-year periods respectively



The Nifty Midcap 250 Index is more diversified than the Nifty 100 Index, with a HHI value of 915.8 versus 1793.1 for the Nifty 100 Index. However, it is slightly less diversified than the Nifty Smallcap 250 Index, as the Nifty Smallcap 250 Index has a HHI value of 844.5

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

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