

Nifty Financial Services Index

Gain broad exposure to firms across the Financial Services sector

December 2020



Introduction

Financial services firms are crucial to the success of the economy in the long run. The financial services landscape in India is constantly changing and evolving. Banks have historically played a critical role in the financial system, channeling surplus funds from savers to borrowers, and continue to do so. However, in recent years other subsectors of the financial services including Insurance, Housing Finance, NBFCs, Asset Management Companies etc. have gained increased prominence. Similar to Banks, Housing Finance companies and NBFCs support credit creation and growth across the economy. Insurance companies facilitate pooling of risks so individuals and firms can focus on their core business, knowing they are financially protected against unforeseen circumstances. Asset Management Companies facilitate savings and investment and help investors achieve their financial goals.

The Nifty Financial Services Index aims to capture this diversity of subsectors within financial services and track their performance in a single index.

About the Nifty Financial Services Index

The Nifty Financial Services Index tracks the performance of Indian financial services companies including banks, housing finance, insurance, NBFCs, other financial services companies etc. The index comprises a maximum of 20 stocks and a stock's weight is based on its free float market capitalization.

Highlights

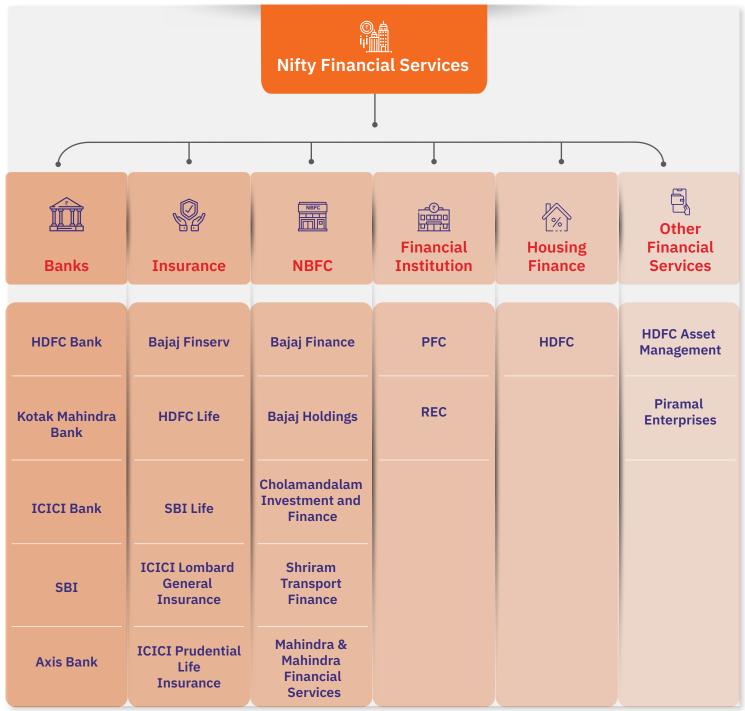
- The index has a base date of **January 01**, 2004, with a base value of 1000
- The index tracks the performance of **Indian financial services companies** including Banks, Housing Finance, Insurance, NBFCs, other financial services companies etc.
- The companies should form part of **Nifty 500** at the time of review to be eligible for inclusion in the index
- The index comprises a maximum of 20 stocks
- The weight of each stock is based on its free float market capitalization
- The index is reconstituted **semi-annually**
- A buffer based on free float market capitalization is applied to reduce turnover



The Nifty Financial Services Index offers diversified exposure to Banks, Housing Finance, Insurance, NBFCs and other financial companies

The Nifty Financial Services Index offers broad and diversified exposure to the Financial Services sector. The subsectors and constituents of the Nifty Financial Services Index are shown in Exhibit 1.

Exhibit 1. Constituents of the Nifty Financial Services Index as at December 29, 2020



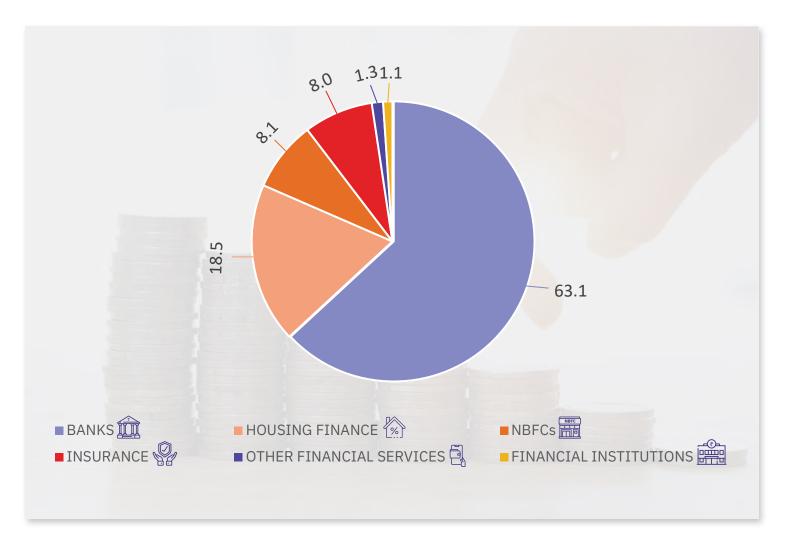
Source: NSE Indices.

Nifty Financial Services

As seen in the Exhibit 2 below, Banks account for 63.1% of weight of the Nifty Financial Services Index, followed by Housing Finance Companies at 18.5%. NBFCs and Insurance Companies have 8.1% and 8.0% weight respectively. Other Financial Services

and Financial Institutions categories cumulatively account for 2.4% of the weight of the Nifty Financial Services Index. These categories include Asset Management Companies and Public Sector Undertaking (PSU) lending institutions.

Exhibit 2: Distribution of Nifty Financial Services Index weights by subsector



Source: NSE Indices. Data as of December 29, 2020

Investors can obtain greater exposure to various subsectors of the Financial Services sector through the Nifty Financial Services Index compared to Nifty Bank Index and broad market indices

The Nifty Financial Services Index allows investors to get diversified exposure to financial services sector as compared to Nifty Bank Index and more focused exposure as compared to broad market indices. The exhibit below shows the weights of various subsectors of financial services in the Nifty Financial Services Index versus their weights in the Nifty Bank Index and in the broader Nifty 50 Index and Nifty 500 Index.



Exhibit 3: Distribution of Nifty Financial Services Index weights (%) by subsector compared to Nifty 50 Index, Nifty 500 Index and Nifty Bank Index

	Nifty Financial Services	Nifty 50	Nifty 500	Nifty Bank
Banks	63.1	26.5	20.3	100.0
Housing Finance Companies	18.5	7.5	5.6	0.0
NBFCs	8.1	2.3	3.0	0.0
Insurance Companies	8.0	2.5	2.5	0.0
Other Financial Services	1.3	0.0	1.4	0.0
Financal Institutions	1.1	0.0	0.3	0.0
Total Financial Services Exposure	100.0	38.7	33.2	0.0

Source: NSE Indices. Data as of December 29, 2020. Other Financial Services includes rating agencies, capital markets, investment companies, stock broking and allied services

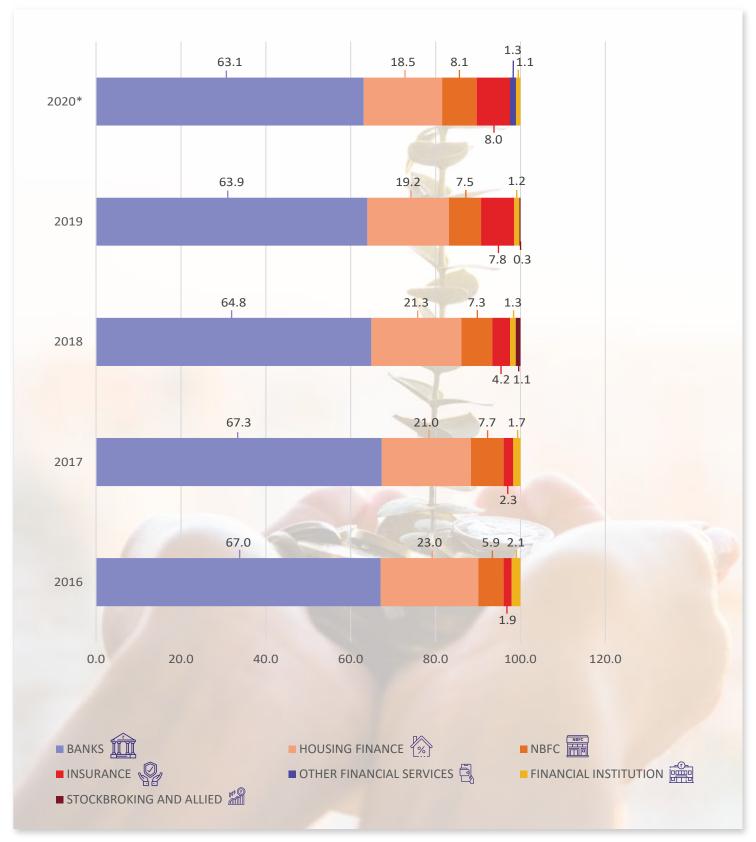
Banks account for 63.1% weight of the Nifty Financial Services Index compared to 26.5% in the Nifty 50 Index, 20.3% in the Nifty 500 Index and 100.0% in the Nifty Bank Index, as of December 29, 2020. Similarly, the weight of Insurance companies in the Nifty Financial Services Index is 8.0% compared to 2.5% in the Nifty 50 Index and Nifty 500 Index and 0.0% in the Nifty Bank Index. Thus, the Nifty Financial Services Index gives investors more targeted and larger exposure to these subsectors of the Financial Services sector than broad market indices. Likewise, Nifty Financial Services Index provides more diversified exposure to various subsectors of financial services sector as compared to exposure to only banking sector in case of Nifty Bank Index.

The weights of sectors like Insurance and NBFC sub-sector have increased in Nifty Financial Services Index through time

The Exhibit 4 below shows how the weights of various subsectors have changed through time in the Nifty Financial Services Index. As of December 31, 2016, the weight of insurance companies in the Nifty Financial Services Index was 1.9%. Since then, more insurance companies have been listed on the exchanges and the weight of the sector has steadily increased to 8.0% as of December 29, 2020. The weight of the NBFCs has increased from 5.9% as of December 31, 2016 to 8.1% as of December 29, 2020. Through the same period, the weight of Banks has decreased marginally from 67% as of end CY 2016 to 63.1% as of December 29, 2020. Housing Finance companies' weight has reduced from 23% as of end CY 2016 to 18.5% as of December 29, 2020.



Exhibit 4: Distribution of Nifty Financial Services Index by subsector over the last 5 calendar years



Source: NSE Indices. *Data as of December 29, 2020. For other years, data is as of December 31 for the respective year

Nifty Financial Services

The Nifty Financial Services Index has significantly outperformed broader market indices and Nifty Bank over the long term

Exhibit 5: Nifty Financial Services Index, Nifty 50 Index, Nifty Bank Index and Nifty 500 Index performance



Source: NSE Indices. Data as of December 29, 2020

Exhibit 6: Nifty Financial Services Index, Nifty 50 Index, Nifty Bank and Nifty 500 Index performance table

CAGR returns			Annualised Volatility			Return-Risk Ratio						
Period	Nifty Financial Services	Nifty 50	Nifty Bank	Nifty 500	Nifty Financial Services	Nifty 50	Nifty Bank	Nifty 500	Nifty Financial Services	Nifty 50	Nifty Bank	Nifty 500
Since Inception	18.7%	13.9%	16.9%	13.9%	29.3%	22.9%	30.5%	22.2%	0.64	0.61	0.56	0.63
15 years	16.9%	12.6%	14.9%	12.1%	29.3%	22.9%	30.2%	22.1%	0.58	0.55	0.49	0.55
10 years	13.3%	9.9%	11.1%	10.0%	23.6%	17.5%	24.9%	17.0%	0.57	0.56	0.45	0.59
7 years	19.0%	13.4%	16.3%	14.2%	22.8%	17.2%	24.0%	17.0%	0.83	0.78	0.68	0.84
5 years	17.3%	13.3%	13.7%	12.6%	23.7%	18.2%	24.8%	17.7%	0.73	0.73	0.55	0.71
3 years	13.6%	11.2%	7.3%	7.8%	27.8%	21.1%	28.9%	20.3%	0.49	0.53	0.25	0.38
1 years	4.1%	15.7%	-2.6%	17.4%	41.2%	31.3%	43.1%	29.5%	0.10	0.50	-0.06	0.59
6 months	43.5%	36.0%	46.6%	36.1%	24.0%	15.5%	27.5%	15.0%	1.81	2.32	1.69	2.40
3 months	42.3%	24.2%	46.0%	23.0%	24.2%	14.4%	27.1%	13.8%	1.75	1.67	1.70	1.67



The Nifty Financial Services Index has outperformed both the Nifty 50 Index and Nifty Bank since inception (Jan 01, 2004), with 18.7% CAGR return against 13.9% return for the Nifty 50 Index and 16.9% CAGR return for the Nifty Bank Index. In the last 5 years, over the period of December 31, 2015 to December 29, 2020, the Nifty Financial Services Index returned 17.3% CAGR compared to 13.3% CAGR for the Nifty 50 Index and 13.7% CAGR for the Nifty Bank Index.

Being a sector index, the Nifty Financial Services Index has been more volatile than the Nifty 50 Index, however being more diversified than Nifty Bank Index, it has been less volatile than the Nifty Bank Index over various time horizons. Since inception, the Nifty Financial Services Index has had annualized volatility of 29.3% compared to 22.9% for the Nifty 50 Index and 30.5% for the Nifty Bank Index. Similarly, over the last 1 year between December 31, 2019 and December 29, 2020, the Nifty Financial Services Index has had annualized volatility of 41.2% compared to 31.3% for the Nifty 50 Index and 43.1% for the Nifty Bank Index. This higher volatility over the last year was also due to the pandemic related sell-off in H1 2020, with the economy-sensitive financial sector being significantly affected by pandemic related disruptions. The Nifty Financial Services Index has outperformed the Nifty Bank Index over various time horizons with lesser volatility and better returns and thus exhibited better risk adjusted returns than the Nifty Bank Index.

Exhibit 7: Nifty Financial Services Index, Nifty 50 Index, Nifty Bank and Nifty 500 Index betas and correlations with Nifty 50 Index

		Beta relative	to Nifty 50	Correlation with Nifty 50				
	Nifty Financial Services	Nifty 50	Nifty Bank	Nifty 500	Nifty Financial Services	Nifty 50	Nifty Bank	Nifty 500
Since Inception	1.16	1.00	1.17	0.96	0.91	1.00	0.88	0.98
15 years	1.17	1.00	1.16	0.95	0.91	1.00	0.88	0.99
10 years	1.23	1.00	1.27	0.96	0.92	1.00	0.89	0.99
7 years	1.21	1.00	1.24	0.97	0.92	1.00	0.89	0.98
5 years	1.20	1.00	1.23	0.96	0.92	1.00	0.90	0.99
3 years	1.22	1.00	1.24	0.95	0.93	1.00	0.91	0.99
1 year	1.23	1.00	1.27	0.94	0.94	1.00	0.92	0.99
6 months	1.31	1.00	1.49	0.95	0.84	1.00	0.84	0.98
3 months	1.36	1.00	1.58	0.93	0.81	1.00	0.84	0.98

Source: NSE Indices. Data as of December 29, 2020. Inception date: Jan 01, 2004. Returns based on TRI values. Benchmark for beta and correlation calculation is Nifty 50 Index

The Nifty Financial Services Index has had beta > 1 over various time horizons using the Nifty 50 Index as benchmark. For example, since inception, the Nifty Financial Services Index has had beta of 1.16 using the Nifty 50 Index as benchmark. The Nifty Financial Services Index has also exhibited strong correlation with the Nifty 50 Index over long time horizons. For example, the correlation between the Nifty Financial Services Index and the Nifty 50 Index has been 0.92 over the 10-year period from December 31, 2010 to December 29, 2020.



Exhibit 8: Nifty Financial Services Index, Nifty 50 Index, Nifty Bank and Nifty 500 Index betas and correlations with Nifty Bank Index

		Beta relative	to Nifty Bank		Correlation with Nifty Bank				
	Nifty Financial Services	Nifty 50	Nifty Bank	Nifty 500	Nifty Financial Services	Nifty 50	Nifty Bank	Nifty 500	
Since Inception	0.94	0.66	1.00	0.64	0.98	0.88	1.00	0.88	
15 years	0.95	0.66	1.00	0.64	0.98	0.88	1.00	0.88	
10 years	0.92	0.63	1.00	0.61	0.97	0.89	1.00	0.89	
7 years	0.92	0.64	1.00	0.63	0.97	0.89	1.00	0.88	
5 years	0.93	0.66	1.00	0.64	0.97	0.90	1.00	0.89	
3 years	0.93	0.66	1.00	0.63	0.97	0.91	1.00	0.90	
1 year	0.94	0.67	1.00	0.62	0.98	0.92	1.00	0.91	
6 months	0.84	0.47	1.00	0.44	0.97	0.84	1.00	0.81	
3 months	0.86	0.45	1.00	0.40	0.96	0.84	1.00	0.79	

Source: NSE Indices. Data as of December 29, 2020. Inception date: Jan 01, 2004. Returns based on TRI values. Benchmark for beta and correlation calculation is Nifty Bank Index

The Nifty Financial Services Index has had beta < 1 over various time horizons in relation to the Nifty Bank Index. For example, since inception, the Nifty Financial Services Index has had beta of 0.94 in relation to the Nifty Bank Index. The Nifty Financial Services Index has exhibited strong correlation with the Nifty Bank Index over several time horizons. For example, the correlation between the Nifty Financial Services Index and the Nifty Bank Index has been 0.97 over the 7 year period from December 31, 2013 to December 29, 2020.

The Nifty Financial Services Index has outperformed the Nifty 50 Index and Nifty Bank Index for most of the calendar years

The Nifty Financial Services Index has outperformed the Nifty 50 Index in 10 out of the last 17 calendar years and outperformed the Nifty Bank Index in 11 out of the last 17 calendar years from 2004 onward. The Nifty Financial Services Index has generally underperformed the Nifty 50 Index in years of global turmoil. For example, underperformance of the financial services index vs the Nifty 50 Index occurred in 2008 (Global Financial Crisis), 2011 (European sovereign debt crisis), 2013 ('Taper Tantrum' in the US as the Federal Reserve considered slowing its QE program), 2015 (commodity price crash) and 2020 (COVID pandemic).



Exhibit 9: Performance of Nifty Financial Services Index, Nifty 50 Index, Nifty Bank Index and Nifty 500 Index by calendar year



Source: NSE Indices. *Data as of December 29, 2020

Nifty Financial Services Index has outperformed the Nifty 50 and Nifty Bank Index on a rolling return basis over long term horizons

Exhibit 10: Instances of outperformance of Nifty Financial Services Index vs Nifty 50 Index on a daily rolling return basis

Percentage of total instances of Outperformance and Underperformance vs Nifty 50 on daily rolling return basis									
	Nifty Financial Services Index								
Investment Horizon	Instances of Underperformance vs Nifty 50	Instances of Outperformance vs Nifty 50							
	Excess Return < 0% CAGR	Excess Return >= 0% CAGR	Excess Return (>4% CAGR)	Excess Return (2-4% CAGR)	Excess Return (0-2% CAGR)				
10 years	0.0%	100.0%	79.1%	17.7%	3.3%				
7 years	0.0%	100.0%	73.4%	26.3%	0.4%				
5 years	0.7%	99.3%	67.6%	23.8%	7.9%				
3 years	13.3%	86.7%	63.0%	12.3%	11.4%				
2 years	17.8%	82.3%	54.0%	15.3%	12.9%				
1 year	30.8%	69.2%	56.8%	6.7%	5.6%				

Source: NSE Indices. Instances of outperformance or underperformance calculated using daily rolling returns. Data as of December 29, 2020



From the table above, based on daily rolling returns, for a 5-year investment horizon, the Nifty Financial Services Index has outperformed the Nifty 50 Index 99.3% of the time. The frequency of outperformance rises to 100% when we consider longer time horizon of 7 years and 10 years. Outperformance of the Nifty Financial Services Index over the Nifty 50 Index 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 50 Index 69.2% of the time. For the 5-year investment horizon, based on daily rolling return analysis, the excess return of the Nifty Financial Services Index exceeds 4% per annum over the Nifty 50 Index in 67.6% of the instances, excess return ranged between 2-4% per annum for 23.8% of the instances and excess return was in the range of 0-2% per annum for 7.9% of the instances, leading to cumulative 99.3% instances of outperformance over the Nifty 50 Index.

Exhibit 11: Average return and standard deviation of daily rolling returns of Nifty Financial Services Index vs Nifty 50 Index

Rolling Returns Period	Average rolli	ng return	St. Dev. of ro	lling return	Rolling Return- Risk Ratio	
	Nifty Financial Services	Nifty 50	Nifty Financial Services	Nifty 50	Nifty Financial Services	Nifty 50
10 years	16.9%	12.0%	3.9%	3.4%	4.37	3.54
7 years	16.9%	12.0%	4.1%	3.4%	4.13	3.54
5 years	17.1%	12.1%	6.4%	5.6%	2.66	2.15
3 years	18.7%	13.6%	12.3%	10.7%	1.52	1.27
2 years	19.7%	14.8%	17.7%	15.7%	1.11	0.94
1 year	23.0%	16.5%	33.0%	24.6%	0.70	0.67

Source: NSE Indices. Averages and standard deviations calculated using daily rolling returns. Data as of December 29, 2020

From the table above, based on daily rolling returns, for a 1-year investment horizon, the Nifty Financial Services Index has returned an average of 23% p.a. compared to 16.5% p.a. for the Nifty 50 Index. The standard deviation of the time series of 1-year rolling returns, based on daily rolling returns, is 33% for the Nifty Financial Services Index compared to 24.6% for the Nifty 50 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 0.70 for the Nifty Financial Services Index vs 0.67 for the Nifty 50 Index.

The Nifty Financial Services Index outperforms the Nifty 50 Index on rolling return-risk ratio basis across longer time horizons as well.

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Based on daily rolling returns, for a 7-year investment horizon, the Nifty Financial Services Index has returned an average of 16.9% p.a. compared to 12.0% p.a. for the Nifty 50 Index. The standard deviation of the time series of 7-year rolling returns, based on daily rolling returns, is 4.1% for the Nifty Financial Services Index compared to 3.4% for the Nifty 50 Index. Thus, the rolling return-risk ratio for a 7-year investment horizon is 4.13 for the Nifty Financial Services Index vs 3.54 for the Nifty 50 Index, which demonstrates the Nifty Financial Services Index has provided superior rolling returns adjusted for volatility over 7-year investment horizons compared to the Nifty 50 Index.

Exhibit 12: Instances of outperformance of Nifty Financial Services Index vs Nifty Bank Index on a daily rolling return basis

Pe	rcentage of total instance	es of Outperformance and	Underperformance vs Nif	ity Bank on daily rolling re	eturn basis					
	Nifty Financial Services Index									
Investment Horizon	Instances of Underperformance vs Nifty Bank	erperformance Instances of Outperformance vs Nifty Bank								
	Excess Return < 0% CAGR	Excess Return >= 0% CAGR	Excess Return (>4% CAGR)	Excess Return (2-4% CAGR)	Excess Return (0-2% CAGR)					
10 years	22.6%	77.4%	0.0%	12.6%	64.8%					
7 years	17.4%	82.6%	0.0%	16.4%	66.2%					
5 years	24.9%	75.1%	3.8%	20.1%	51.2%					
3 years	28.0%	72.0%	19.8%	9.6%	42.6%					
2 years	33.2%	66.8%	24.0%	13.4%	29.4%					
1 year	35.3%	64.7%	30.0%	16.1%	18.6%					

Source: NSE Indices. Instances of outperformance or underperformance calculated using daily rolling returns. Data as of December 29, 2020

From the table above, based on daily rolling returns, for a 5-year investment horizon, the Nifty Financial Services Index has outperformed the Nifty Bank Index 75.1% of the time. The frequency of outperformance rises to 82.6% when we consider longer time horizon of 7 years. Outperformance of the Nifty Financial Services Index over the Nifty Bank Index is also observed over shorter periods as well. For example, for 1-year investment horizon, based on daily rolling return analysis, the Index has outperformed the Nifty 50 Index 64.7% of the time. For the 5-year investment horizon, based on daily rolling return analysis, the excess return of the Nifty Financial Services Index exceeds 4% per annum over the Nifty Bank Index in 3.8% of the instances, excess return ranged between 2-4% per annum for 20.1% of the instances and excess return was in the range of 0-2% per annum for 51.2% of the instances, leading to cumulative 75.1% instances of outperformance over the Nifty Bank Index.



Exhibit 13: Average return and standard deviation of daily rolling returns of Nifty Financial Services Index vs Nifty Bank Index

	Average ro	lling return	St. Dev. of ro	olling return	Rolling Return- Risk Ratio		
Rolling Returns Period	Nifty Financial Services	Nifty Bank	Nifty Financial Services	Nifty Bank	Nifty Financial Services	Nifty Bank	
10 years	16.9%	16.0%	3.9%	3.9%	4.37	4.06	
7 years	16.9%	16.0%	4.1%	4.0%	4.13	4.01	
5 years	17.1%	16.1%	6.4%	6.3%	2.66	2.54	
3 years	18.7%	17.2%	12.3%	11.6%	1.52	1.48	
2 years	19.7%	17.8%	17.7%	17.2%	1.11	1.04	
1 year	23.0%	21.0%	33.0%	33.3%	0.70	0.63	

Source: NSE Indices. Averages and standard deviations calculated using daily rolling returns. Data as of December 29, 2020

From the table above, based on daily rolling returns, for a 1-year investment horizon, the Nifty Financial Services Index has returned an average of 23% p.a. compared to 21% p.a. for the Nifty Bank Index. The standard deviation of the time series of 1-year rolling returns, based on daily rolling returns, is 33% for the Nifty Financial Services Index compared to 33.3% for the Nifty Banks 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 0.70 for the Nifty Financial Services Index vs 0.63 for the Nifty Bank Index.

The Nifty Financial Services Index outperforms the Nifty Bank Index on rolling return-risk

ratio basis across longer time horizons as well. Based on daily rolling returns, for a 10-year investment horizon, the Nifty Financial Services Index has returned an average of 16.9% p.a. compared to 16.0% p.a. for the Nifty Bank Index. The standard deviation of the time series of 10-year rolling returns, based on daily rolling returns, is ~3.9% for both the Nifty Financial Services Index and the Nifty Bank Index. Thus, the rolling return-risk ratio for a 7-year investment horizon is 4.37 for the Nifty Financial Services Index vs 4.06 for the Nifty Bank Index, which demonstrates the Nifty Financial Services Index has provided superior rolling returns adjusted for volatility over 10-year investment horizons compared to the Nifty Bank Index.



Signing off



The Nifty Financial Services 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

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