

<u>NAME</u>	<u>ID</u>
AKSHAY SHEKHAR	2017B1A4071G
ANIKET CHANDRA	2017B1A80846G
KARTIK KHANDELWAL	2017B1A10811G
PRANAV MEHTA	2017B2A40437G
UTKARSH SINGH	2017B1A40848G
V. PRIYAL	2017B1A40819G

CATEGORY NAME OF MF: SMALL CAP EQUITY FUNDS

<u>NAME OF THE MUTUAL FUNDS</u>
Axis Small Cap Fund - Growth Small Cap Fund
SBI Small Cap Fund - Growth Small Cap Fund
Union Small Cap Fund - Regular Plan - Growth Small Cap Fund
L&T Emerging Businesses Fund - Regular Plan - Growth Small Cap Fund
DSP Small Cap Fund - Regular Plan - Growth Small Cap Fund
Kotak Small Cap Fund - Growth Small Cap Fund
HDFC Small Cap Fund - Growth Small Cap Fund
Nippon India Small Cap Fund - Growth Small Cap Fund
Franklin India Smaller Companies Fund - Growth Small Cap Fund
Aditya Birla Sun Life Small Cap Fund - Regular Plan - Growth Small Cap Fund
HSBC Small Cap Equity Fund - Growth Small Cap Fund
Sundaram Small Cap Fund - Growth Small Cap Fund
Sundaram Select Micro-Cap - Series VIII - Regular Plan - Growth Small Cap Fund
Sundaram Select Micro-Cap - Series IX - Regular Plan - Growth Small Cap Fund

Sundaram Select Micro-Cap - Series X - Regular Plan - Growth Small Cap Fund



A Report on:

MARKET TIMING OF MFS

By

GROUP NUMBER: 5

Under the guidance of

DR. SHREYA BISWAS

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI (2020)

**COURSE: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT ECON
F412**

INDEX

1. ACKNOWLEDGEMENT (PG 4)
2. ABSTRACT (PG 5)
3. WHAT ARE MUTUAL FUNDS (PG 6)
4. WHAT ARE NAVs (PG 6)
5. TYPE OF MUTUAL FUNDS (PG 7)
6. TYPES OF EQUITY MUTUAL FUNDS (PG 8)
7. SMALL CAP EQUITY FUNDS (PGS 9-10)
8. SOME INFO ABOUT MFs WE HAVE ANALYSED (PGS 10-21)
9. MF ANALYSIS BASED ON QUADRATIC METHOD (PGS 21-22)

ACKNOWLEDGEMENT:

We would like to express our gratitude to **DR. SHREYA BISWAS** to give us an opportunity to work in the field of mutual funds by giving us a hands-on project. We are thankful for her constant support and encouragement throughout our SAPM course.

ABSTRACT

The aim of the project is to find the effect of market timing on the small cap equity mutual funds. We were able to download data from Money control related to our mutual funds for 1,3- and 5-year periods. We then used the regression methodology with quadratic term and dummy specification to find the market timing ability. For the purpose of calculations, we used Microsoft Excel. After the calculations we were able to rank the MFs according to their market timing abilities.

WHAT ARE MUTUAL FUNDS?

Many people shy away from investing in stocks and bonds despite wanting to because they do not understand how to go about it. For such people mutual funds are the best type of investment.

If a large number of people, who don not possess any expertise or are too busy to invest individually, pool in their money into a fund and the fund invests in stocks, bonds, money market instruments and other assets on their behalf. Since the amount becomes reasonably large, the fund can afford to hire professional money managers on a full-time basis who take investment decisions for the fund and allocate its investments with a view to earn capital gains or regular income for the people.

These funds they charge a small fee for managing the money. This expense that is incurred is collectively called as **expense ratio** which generally varies between 1.5 to 2.5% of the average weekly net assets of the scheme.

Just as there are share in companies, in a mutual fund one purchases units. If we divide the market value of the portfolio assets the fund has invested in less its liabilities by the number of units, we arrive at **NAV (Net Asset Value)**.

WHAT ARE NAVs?

The NAV represents the funds per unit market value. This is the price at which investors buy fund units from a company or sell it back to the fund house. The NAV of a fund is calculated by the mutual fund house.

NAV is calculated at the end of every market day, after considering the closing market prices of the portfolio's securities.

Different schemes have having higher or lower NAVs do not in any way reflect on the fund's current performance nor the profit that can be made by investing in them.

Daily changes in NAV of mutual fund schemes do not matter. It would be better to look at the annualized return of a fund over different time frames to judge its performance.

TYPES OF MUTUAL FUNDS

In India, the Securities Exchange Board of India has categorized mutual funds into 4 broad categories:

a. Equity Mutual Funds:

These funds invest directly in stocks, Since, equity markets are prone to fluctuations, these are high risk, high return schemes. These are useful for the investors having a longer long-term investment horizon of over five years.

b. Debt Mutual Funds:

These schemes invest in debt securities. Since debt is not subject to vagaries of market fluctuations, these schemes are stable and relatively safe, but also provide mediocre results. These funds would appeal to those looking to invest for short periods of less than 5 years.

c. Hybrid Mutual Funds:

These funds invest their money in a combination of equity and debt. The schemes of such funds provide returns which are higher than pure debt funds.

d. Solution Oriented mutual funds:

These mutual funds offer schemes for specific needs for purposes like children's education or for post-retirement. These schemes usually have a lock in period of 5 years.

TYPES OF EQUITY MUTUAL FUNDS

Large Cap funds

They are open-ended, equity funds which invest at least 80% of their total assets in large-cap stocks. Large-cap companies are trustworthy and strong companies with an excellent track record. They are known to have generated wealth for their investors.

Mid-cap funds

are open-ended, equity funds which invest around 65% of their total assets in equity and equity-related instruments of mid-cap companies. These companies have been around for quite some time and have a good track record too. Some of these will soon transform into large-cap companies. This makes the mid-cap segment an interesting one for growth opportunities with controlled risk.

Small-cap funds

They are open-ended equity funds which invest a minimum of 65% of their total assets in small-cap stocks. These are the smaller companies or the new entrants in the market. These funds have a high potential for growth but also carry a high amount of risk. They are usually recommended for investors with higher risk tolerance.

SMALL CAP EQUITY MUTUAL FUNDS

- a. Small-Cap Funds invest a major portion of their investible corpus into equity or equity-related instruments of small-cap companies. According to the Securities and Exchange Board of India (SEBI), small-cap schemes need to invest at least 80% of their total assets in small-cap companies.
- b. Also, **SEBI** defines small-cap companies as those which are ranked below the 250th rank in terms of market capitalization. In monetary terms, these are companies with a market capitalization of less than Rs. 500 crores.
- c. It is important to note that small-cap funds carry a high level of risk. Even the slightest volatility in the market can have a huge impact on the share prices of small-cap companies. However, these stocks also have a huge potential to offer amazing returns. Think about it – a small company has a lot of scope for growth and when it does grow, the share price would increase dramatically. However, many investors tend to turn towards small-cap schemes for short-term investment needs. This can be counterproductive as small companies need time to grow. Hence, it is usually recommended to opt for small-cap funds if you have a higher risk tolerance and a long investment horizon.
- d. The **Net Asset Value** (NAV) of a Small Cap Fund is highly sensitive to the movements of its underlying benchmark. Hence, when the market conditions are not good, many small-cap funds suffer losses. Having said this, it is also a great opportunity for investors who are willing to take the risk and desire aggressive growth.
- e. Small-Cap stocks are highly sensitive to market movements. Therefore, when the market slumps, these stocks are probably the worse-affected. Hence, it is important to have a long-term investment window while investing in Small-Cap Funds so that you give sufficient time to your investment to generate returns. The recommended time frame is eight to ten years.
- f. Small Cap Funds offer great potential to earn benchmark-beating returns. However, these are highly risky investments and should be considered only if you can stomach the volatility in prices. Further, you can dedicate a small portion of your portfolio to small-caps and stay invested for a long period to boost your wealth creation efforts.
- g. Capital gain is the profit made from selling an investment. Hence, when you redeem the units of the Small Cap Fund and make profits, you are liable to pay **capital gains tax**. The

rate of this tax is dependent on the period for which you were invested in the scheme – the holding period.

- h. If we invested in the Small Cap Fund for a holding period of less than one year, then the capital gain earned by you is called Short Term Capital Gain or STCG. This is taxed at 15%.
- i. If we invested in the Small Cap Fund for a holding period of more than one year, then the capital gain earned by you is called Long Term Capital Gain or LTCG. LTCG of up to Rs. 1 lakh is not taxed. Any gain above this amount is taxed at 10% without indexation.

SOME INFO ABOUT THE MUTUAL FUNDS THAT WE HAVE ANALYZED

L & T EMERGING BUSINESS FUND

This equity mutual fund scheme started on 12 May 2014 and is best suited for who are looking to invest money for at least 3-4 years and looking for very high returns. At the same time, these investors should also be ready for possibility of higher losses in their investments. Fund manager(s) – Venugopal M, Vihang Naik

Scheme details

The fund is rated as high risk based on the volatility measure of standard deviation of its returns and has also shown poor risk adjusted returns as on 30th June 2020.

Minimum SIP amount is set to Rs. 500 and minimum one-time investment of Rs. 5000 for first time investment.



DSP SMALL CAP FUNDS

This fund scheme started on 14-Jun-2007, fund's managers are Resham Jain, Vinit Sambre, Jay Kothari. This fund is rated with high risk based on the standard deviation of its historical returns and has shown poor risk adjusted returns as on 30th June 2020.

Min SIP amount is of Rs. 500, Min investment amount (one time- first time) as ₹500

Objective

To seek to generate long term capital appreciation from a portfolio that is substantially constituted of equity and equity related securities, which are not part of the top 300 companies by market capitalization. From time to time, the Investment Manager will also seek participation in other equity and equity related securities to achieve optimal portfolio construction. This shall be the fundamental attribute of the Scheme.



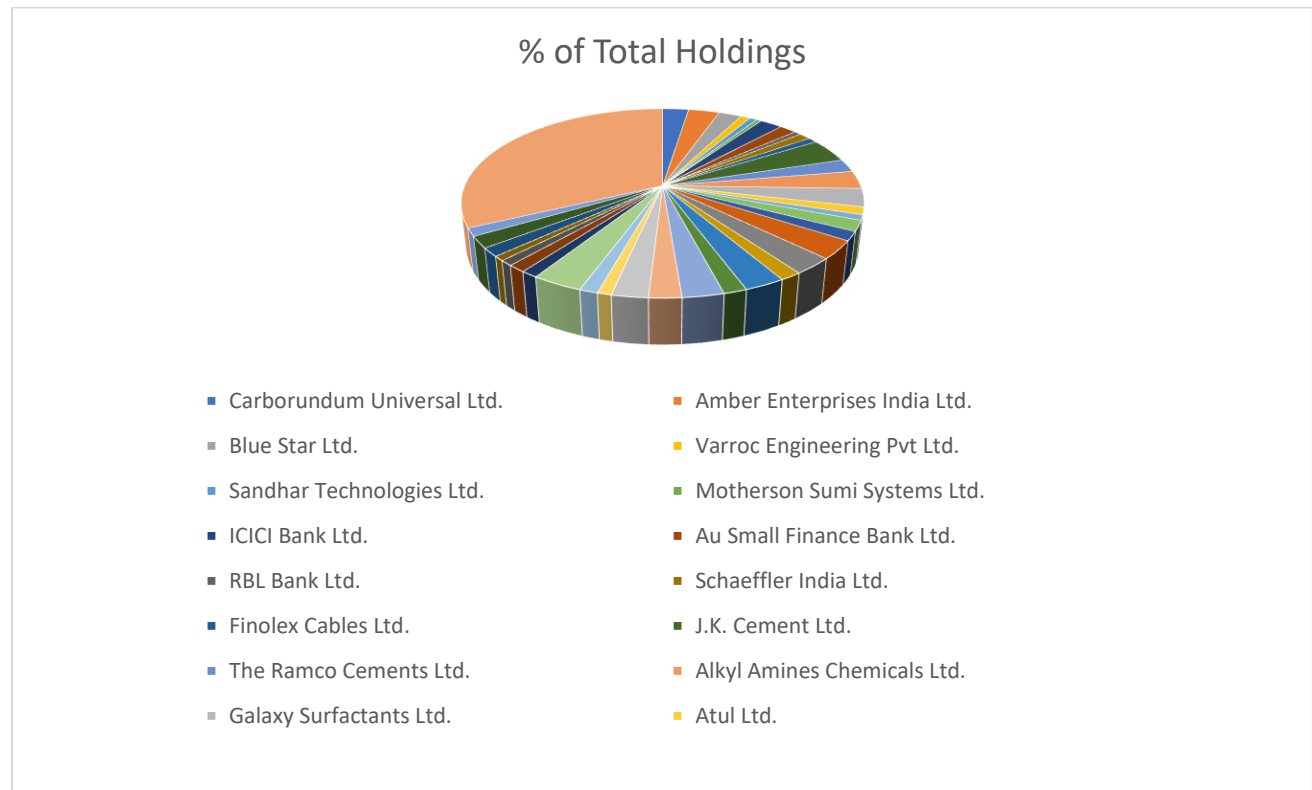
KOTAK SMALL CAP FUNDS

This scheme started on 24-Feb-2005, and with Pankaj Tibrewa as the fund manager. The fund size is ₹ 1402.22 Cr. It has been rated as high risk and shown poor risk adjusted returns as on 30th June 2020. Fund CRISIL rank was updated for this fund from 4 to 3 in the previous quarter.

Min SIP amount is ₹1000 and Min investment amount (one time- first time) as ₹5000.

Objective

The investment objective of the scheme is to generate capital appreciation from a diversified portfolio of equity and equity related securities by investing predominantly in small cap companies. There is no assurance that the investment objective of the Scheme will be achieved.

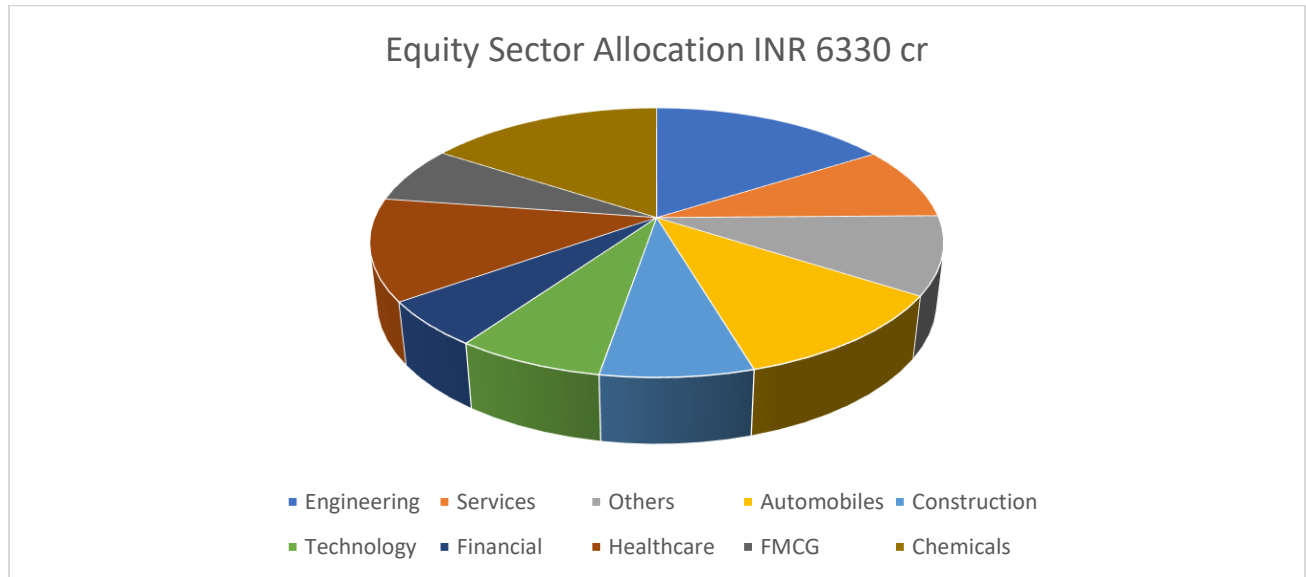


HDFC SMALL CAP FUND REGULAR GROWTH

HDFC Small Cap Fund Regular Growth is a Equity Mutual Fund Scheme launched by HDFC Mutual Fund. This scheme was made available to investors on 03 Apr 2008. Chirag Setalvad is the Current Fund Manager of HDFC Small Cap Fund Regular Growth fund. The fund currently has an Asset Under Management (AUM) of ₹7,511 Cr and the Latest NAV as of 24 Jul 2020 is ₹33.33.

The HDFC Small Cap Fund Regular Growth is rated Moderately High risk. Minimum SIP Investment is set to 500. Minimum Lumpsum Investment is 5000. Exit load of 1% if redeemed within 1 year

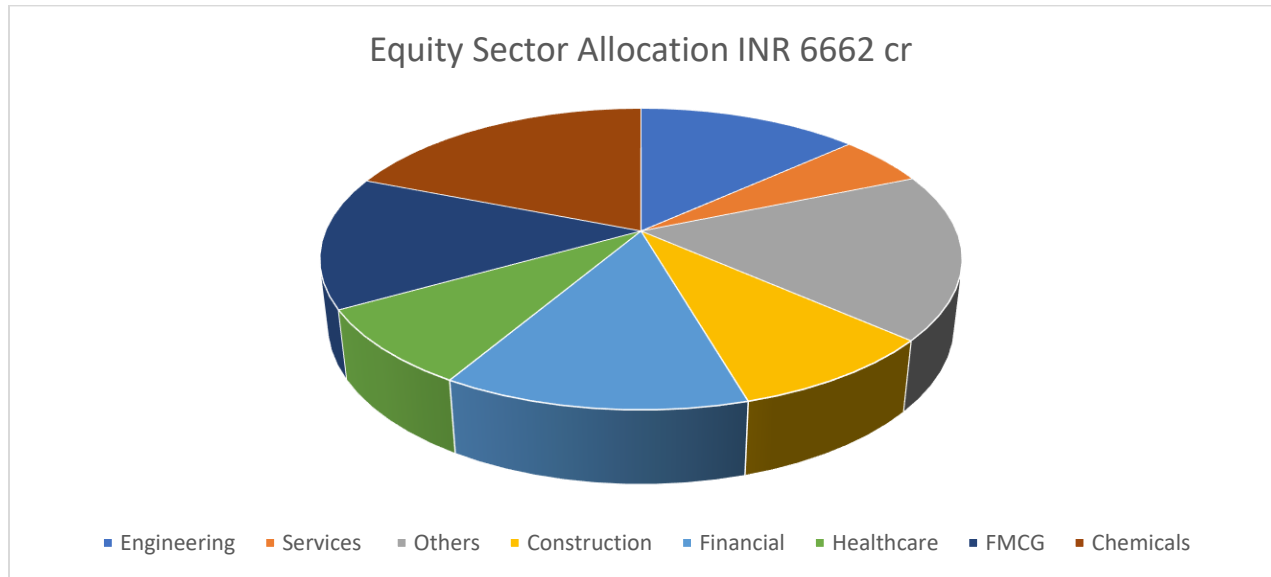
Aurobindo Pharma and Balkrishna Industries Ltd are its major constituents.



NIPPON INDIA SMALL CAP FUND GROWTH

Nippon India Small Cap Fund Growth is a Equity Mutual Fund Scheme launched by Nippon India Mutual Fund. This scheme was made available to investors on 16 Sep 2010. Samir Rachh, Dhrumil Shah is the Current Fund Manager of Nippon India Small Cap Fund Growth fund. The fund currently has an Asset Under Management(AUM) of ₹7,898 Cr and the Latest NAV as of 24 Jul 2020 is ₹36.23.

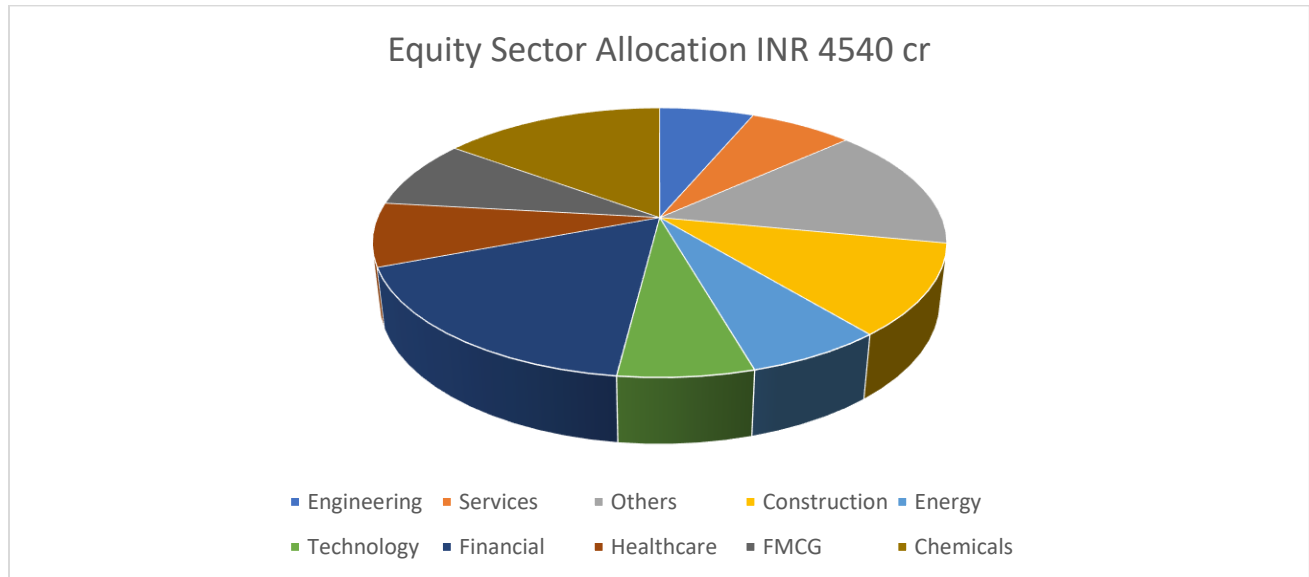
The Nippon India Small Cap Fund Growth is rated Moderately High risk. Minimum SIP Investment is set to 100. Minimum Lumpsum Investment is 5000. For units more than 10% of the investments, an exit load of 1% if redeemed within 12 months.



FRANKLIN INDIA SMALLER COMPANIES FUND GROWTH

Franklin India Smaller Companies Fund Growth is a Equity Mutual Fund Scheme launched by Franklin Templeton Mutual Fund. This scheme was made available to investors on 13 Jan 2006. R Janakiraman, Sriresh Nair, Hari Shyamsunder is the Current Fund Manager of Franklin India Smaller Companies Fund Growth fund. The fund currently has an Asset Under Management (AUM) of ₹5,050 Cr and the Latest NAV as of 24 Jul 2020 is ₹41.47.

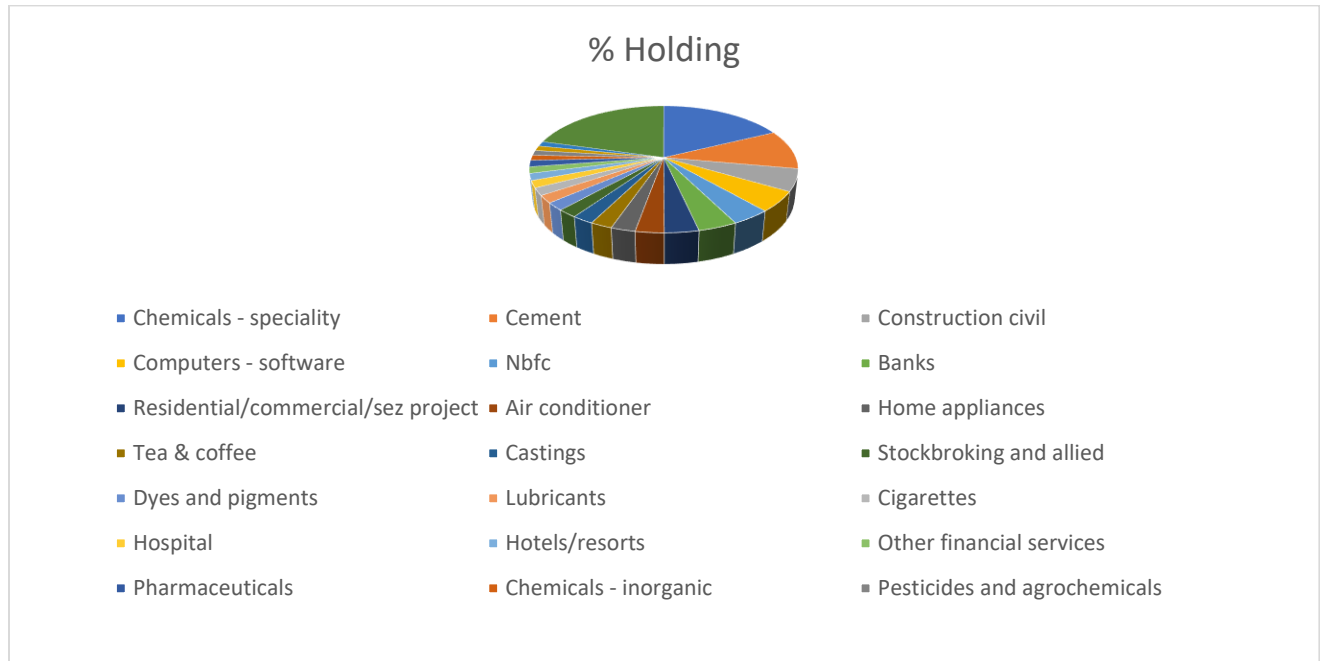
The Franklin India Smaller Companies Fund Growth is rated Moderately High risk. Minimum SIP Investment is set to 500. Minimum Lumpsum Investment is 5000. Exit load of 1% if redeemed within 1 year.



AXIS SMALL CAP FUND – GROWTH SMALL CAP FUND

Axis Small Cap Fund Growth is an Equity Mutual Fund Scheme launched by Axis Mutual Fund. This scheme was launched 29th November 2013. It is an open ended type of mutual fund that is we can invest any time in the fund. Current fund manager of the Axis Small Cap Fund is Anupam Tiwari. The fund currently has an Asset Under Management (AUM) of ₹ 2310.10 Cr. This Fund has 87.33% investment in Indian stocks of which, 13.36% is in mid cap stocks, 67.92% in small cap stocks. The mutual fund is suitable for those investors who are looking to invest at least for 3-4 years and looking for very high returns. At the same time there is possibility of high losses in the investments.

No. of stock in the portfolio of the fund are 46. The equity sector allocation for the Axis Small Cap fund is as follows:



SBI SMALL CAP FUND – GROWTH SMALL CAP FUND

SBI Small Cap Fund Growth is an Equity Mutual Fund Scheme launched by SBI Mutual Fund. This scheme was launched 09-Sep-2009. It is an open-ended type of mutual fund that is we can invest any time in the fund. Current fund manager of the SBI Small Cap Fund is R. Srinivasan. The fund currently has an Asset Under Management (AUM) of ₹ 3917.42 Cr. The mutual Fund has 87.62% investment in Indian stocks of which, 9.41% is in mid cap stocks, 72.21% in small cap stocks. The mutual Fund is suitable for those investors who are looking to invest at least 3-4 years and looking for very high returns, at the same time there is a possibility of high losses.

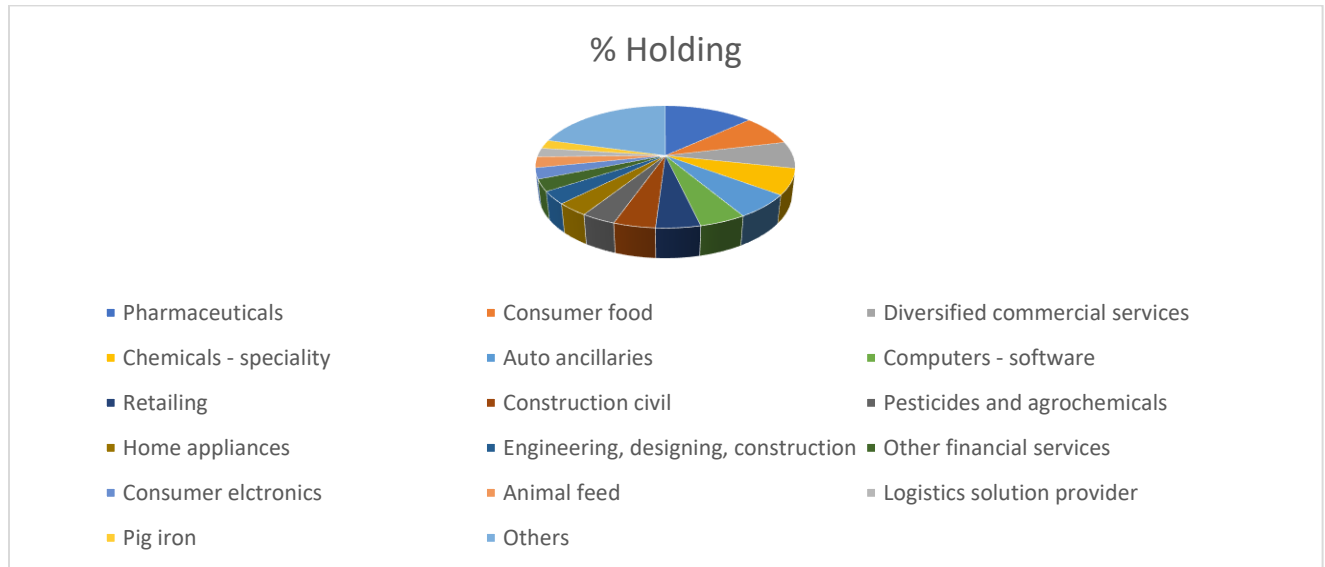
Number of stocks in the SBI Small Cap Fund are 51. The equity allocation of the SBI Small Cap Fund is as follows:



UNION SMALL CAP FUND – REGULAR PLAN – GROWTH SMALL CAP FUND

Union Small Cap Fund Growth is an Equity Mutual Fund Scheme launched by Union Mutual Fund. This scheme was launched 10-Jun-2014. It is an open-ended type of mutual fund that is we can invest any time in the fund. Current fund managers of the Union Small Cap Fund Vinay Paharia and Hardick Bora. The fund currently has an Asset Under Management (AUM) of Rs 300.53 Cr. This mutual Fund has a 93.42% investment in Indian stocks of which, 19.7% is in mid cap stocks, 65.29% in small cap stocks. Fund has 0.5% investment in Debt of which 0.5% in Government securities. This mutual fund is suitable for those investors who are looking for 3-4 years of investment with very high returns given at a very high risk.

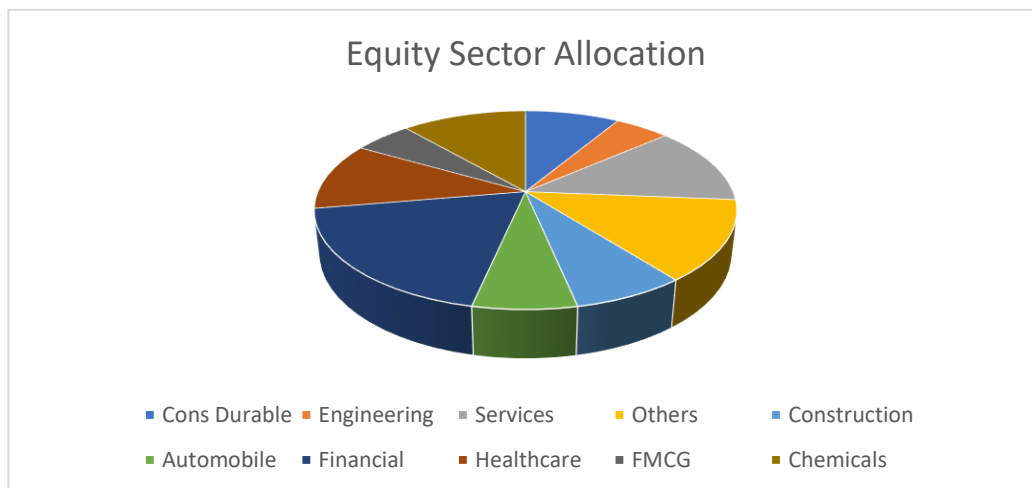
Number of stocks in the portfolio of this mutual fund are 47. The equity allocation of the Union Small Cap Fund is as follows:



ADITYA BIRLA SUN LIFE SMALL CAP FUND DIRECT GROWTH

Aditya Birla Sun Life Small Cap Fund Direct Growth is a Equity Mutual Fund Scheme launched by Aditya Birla Sun Life Mutual Fund. This scheme was made available to investors on 01 Jan -2013. Jayesh Gandhi is the Current Fund Manager of Aditya Birla Sun Life Small Cap Fund Direct Growth fund. The fund currently has an Asset Under Management (AUM) of ₹1,812 Cr and the Latest NAV as of 24 Jul 2020 is ₹27.91.

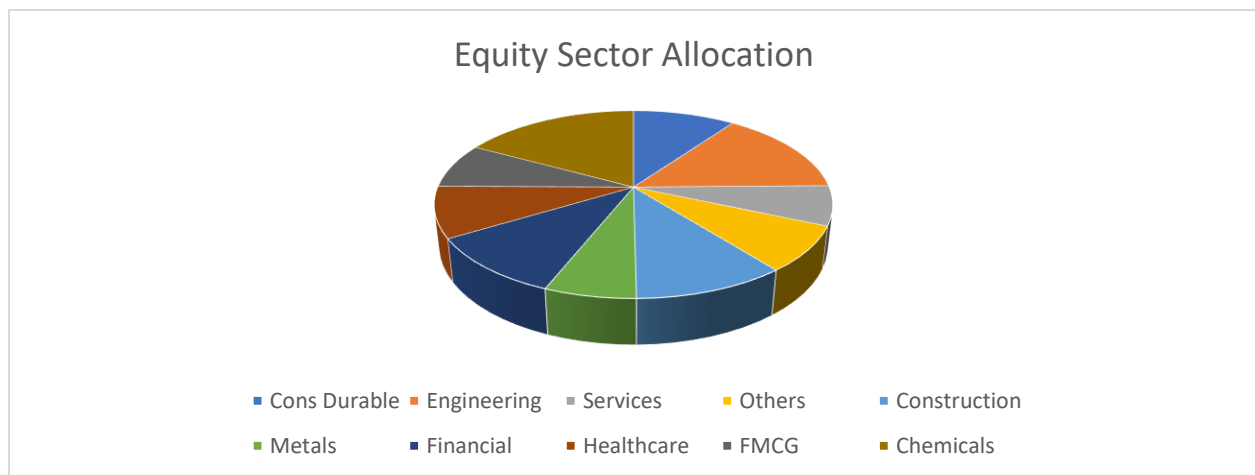
The Aditya Birla Sun Life Small Cap Fund Direct Growth is rated Moderately High risk. Minimum SIP Investment is set to 1000. Minimum Lumpsum Investment is 1000. Exit load of 1% if redeemed within 1 year. Same for SIP.



HSBC SMALL CAP EQUITY FUND DIRECT GROWTH

HSBC Small Cap Equity Fund Direct Growth is a Equity Mutual Fund Scheme launched by HSBC Mutual Fund. This scheme was made available to investors on 01 Jan -2013. Dhiraj Sachdev is the Current Fund Manager of HSBC Small Cap Equity Fund Direct Growth fund. The fund currently has an Asset Under Management(AUM) of ₹287 Cr and the Latest NAV as of 24 Jul 2020 is ₹43.82.

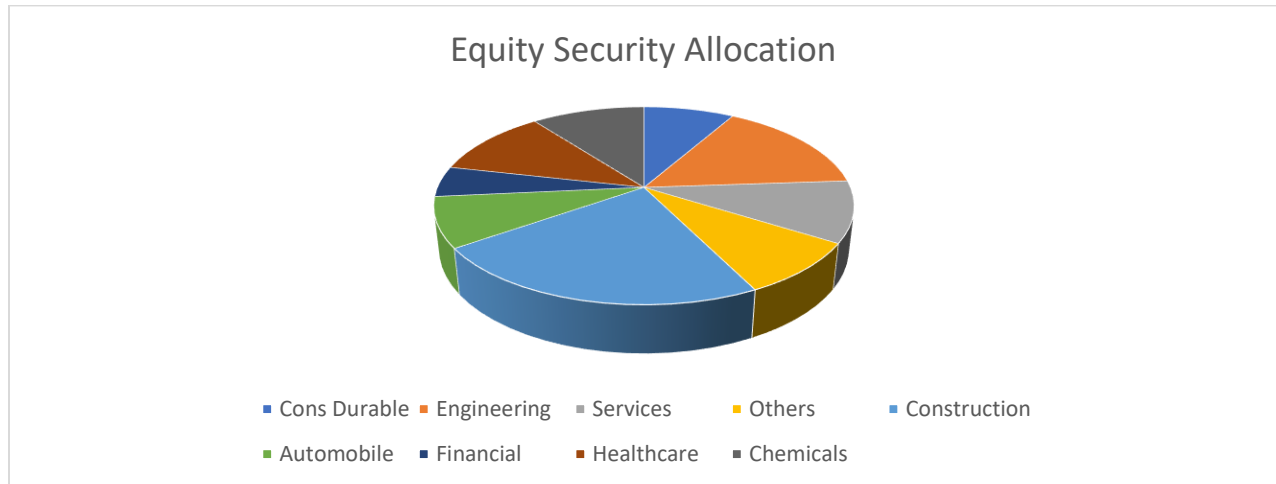
The HSBC Small Cap Equity Fund Direct Growth is rated Moderately High risk. Minimum SIP Investment is set to 500. Minimum Lumpsum Investment is 5000. Exit load of 1% if redeemed within 1 year.



SUNDARAM SMALL CAP FUND DIRECT GROWTH

Sundaram Small Cap Fund Direct Growth is a Equity Mutual Fund Scheme launched by Sundaram Mutual Fund. This scheme was made available to investors on 02 Jan -2013. S Krishnakumar is the Current Fund Manager of Sundaram Small Cap Fund Direct Growth fund. The fund currently has an Asset Under Management(AUM) of ₹906 Cr and the Latest NAV as of 24 Jul 2020 is ₹70.51.

The Sundaram Small Cap Fund Direct Growth is rated Moderately High risk. Minimum SIP Investment is set to 100. Minimum Lumpsum Investment is 100. For units more than 25% of the investments, an exit load of 1% if redeemed within 365 days.



MF ANALYSIS BASED ON QUADRATIC METHOD

In case of underlying small cap mutual funds, it is evident that monthly returns for 3-years and 5-years investment window were not timed as beta-2 values for all the funds turned out to be negative. While in the case of weekly returns for 1-year investment window, Axis Bank and SBI were well timed as the beta-2 values for the above-mentioned funds were 3.51 and 1.09 respectively. Axis Bank yielded a positive return of 0.15% while regardless of being well time SBI yielded a negative return of 0.3%.

WEEKLY RETURNS – 1 YEAR INVESTMENT WINDOW

NAME OF THE MF	BETA 2 (QUAD)
Axis(11)	3.510666756
SBI(12)	1.08774342
Union(10)	-0.224359331
DSP(6)	-0.579988441
L&T(5)	-0.812122155
HDFC(3)	-0.884687049
Sundaram(1)	-0.886937023
Aditya Birla(8)	-1.092173666
Franklin(4)	-1.156808596
Nippon(2)	-1.319399208
HSBC(9)	-1.421777507
Kotak(7)	-1.485846786

NAME OF THE MF	BETA 2 (Dummy)
Axis(11)	0.313385941
SBI(12)	-0.316967031
HDFC(3)	-0.481357497
L&T(5)	-0.51094509
DSP(6)	-0.516124474
Franklin(4)	-0.583930822
Union(10)	-0.602396628
Sundaram(1)	-0.6112899
Aditya Birla(8)	-0.6347394
Nippon(2)	-0.641184718
HSBC(9)	-0.690645324
Kotak(7)	-0.695024573

WEEKLY RETURNS – 3 YEAR INVESTMENT WINDOW

NAME OF THE MF	BETA 2 (QUAD)
HSBC(9)	-0.50869775
SBI(12)	-0.733835739
DSP(6)	-0.826354898
Aditya Birla(8)	-0.872394799
Union(10)	-0.888465851
Sundaram(1)	-0.968980956
Nippon(2)	-1.06492799
Kotak(7)	-1.140408407
HDFC(3)	-1.3712655
L&T(5)	-1.395531724
Franklin(4)	-1.554879288
Axis(11)	-1.856694179

NAME OF THE MF	BETA 2 (Dummy)
Aditya Birla(8)	-0.858698953
HSBC(9)	-0.877241156
Union(10)	-0.880178605
DSP(6)	-0.899697767
Nippon(2)	-0.92177988
Kotak(7)	-0.934396565
L&T(5)	-0.943226284
Sundaram(1)	-0.96445813
HDFC(3)	-0.980376792
SBI(12)	-0.987482272
Franklin(4)	-1.01044312
Axis(11)	-1.174129236

WEEKLY RETURNS – 5 YEAR INVESTMENT WINDOW

NAME OF THE MF	BETA 2 (QUAD)
HSBC(9)	-0.460589785
DSP(6)	-0.639426284
Union(10)	-0.665801341
Sundaram(1)	-0.754054144
Kotak(7)	-0.791356899
Aditya Birla(8)	-0.845363558
SBI(12)	-1.007603859
HDFC(3)	-1.048566261
Nippon(2)	-1.095865851
L&T(5)	-1.189772238
Franklin(4)	-1.385081405
Axis(11)	-1.736343058

NAME OF THE MF	BETA 2 (Dummy)
Union(10)	-0.622436395
Kotak(7)	-0.637596973
DSP(6)	-0.675910833
HSBC(9)	-0.682307202
Aditya Birla(8)	-0.694882809
HDFC(3)	-0.735148389
Sundaram(1)	-0.750749328
Franklin(4)	-0.78682776
L&T(5)	-0.826063363
Nippon(2)	-0.88642666
Axis(11)	-0.9590888
SBI(12)	-0.963759049