

# APPLICATION OF MOVING AVERAGE RULE ON MUTUAL FUNDS WITH REFERENCE TO A SELECTED AMC

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**Abstract:** This paper endeavors to create techniques that empower portfolio managers to improve investment timing by figuring out how to perceive driving signs of expected changes. The point of this examination is the trying, in a Mutual Fund arrangement of the foreseeing capacity of a well known specialized trade device, the Moving Average Rule. A short term and long term moving average are utilized for the making of "purchase" and "sell" sign of shared assets. 15 expectations were made, for a similar time-arrangement, for various estimations of short term and long term moving midpoints and the gainfulness of this strategy was determined. The strategy was demonstrated beneficial; if no purchase and sell cost was tallied. The Moving Average Rule is productive for the organizations that administrate the separate common reserve and not for the single investor.

**Index Terms -** Mutual Funds, Technical Analysis, Moving Average Rule, Active portfolio, Asset Management

## 1.1 INTRODUCTION:

The basic leadership procedure could separate into two separate stages-examination and timing. On account of the high influence factor later on business sectors, timing is particularly pivotal to effective exchanging. It is very conceivable to be right on the general pattern of the market and still lose cash. Since edge necessities are so low in future exchanging, a generally little value move off course can compel the broker out of the market with the subsequent loss of all or the vast majority of that edge. In securities exchange exchanging, on the other hand, a dealer who discovers oneself on the wrong side of the market can just choose to clutch the stock, trusting that it will arrange a rebound sooner or later. This is what number of merchants quit being dealers and moved toward becoming speculators.

## 1.2 LITERATURE REVIEW:

Specialized examiners endeavor to gauge costs by the investigation of past costs and a couple of other related synopsis measurements about security exchanging. They trust that shifts in free market activity can be recognized in outlines of market activity. Specialized investigation is considered by numerous individuals to be the first type of venture examination, going back to the 1800s. (Brock-Lakonishok – Baron 1992). Chartist or Technical investigation of money related markets includes giving gauges of advantage costs or exchanging guidance based on visual examination of the previous history of value developments (Edwards and Magee, 1967). Maybe with the guide of certain quantitative outline proportions of past value developments, for example, 'energy' markers ('oscillators') or moving midpoints (Murphy, 1986), yet without respect to any basic monetary, or 'crucial' examination.

Specialized examination is the investigation of market activity, basically using outlines, to figure future value patterns. The expression "advertise activity" incorporates the three primary wellsprings of data accessible to the specialist value, volume, and open intrigue. The expression "value activity", which is regularly utilized, appears to be too restricted on the grounds that most product experts incorporate volume and open enthusiasm as a necessary piece of their market investigation. With this refinement made, the expressions "value activity" and "market activity" are utilized conversely all through the rest of this dialog.

An inquiry regularly posed is whether specialized investigation as connected to item fates is equivalent to the securities exchange. The appropriate response is both yes and no. The essential standards are the equivalent; however there are some noteworthy contrasts. The standards of specialized investigation were first connected to securities exchange estimating and just later adjusted to products. The majority of the essential apparatuses bar graphs point and figure outlines, value designs, volume, trend lines, moving midpoints, and oscillators, for instance are utilized in the two regions. Any individual who has taken in these ideas in either stocks or products wouldn't have an excessive amount of inconvenience making the change in accordance with the opposite side. Be that as it may, there are some broad zones of contrast having more to do with the extraordinary, idea of stocks and product fates than with the real devices themselves.

This examination endeavors to create systems that empower portfolio chiefs to improve advertise timing by figuring out how to perceive driving signs of inevitable changes. With specialized investigation, changes in value patterns could channel and help the venture arranging process. The field of Mutual Funds, as a contributing alternative, always develops in the worldwide money related market, just as in the Greek one. In the most recent years, which were portrayed by the constraining of the exhibition of different elective speculations, shared assets were built up as one of the principal selections of financial specialists. Not just of those officially enthused about this kind of speculation, yet additionally of new financial specialists, which pursue the first run through their karma on a type of venture of less steady execution and with greater level of hazard.

### 1.3 RESEARCH DESIGN:

The present study considers three different category mutual funds namely Equity (Axis Blue Chip Fund - Direct – Growth), Debt (Axis Banking and PSU Debt Fund - Direct – Growth) and Hybrid (Axis Hybrid Fund - Regular – Growth) to study the application of a popular technical analysis tool Moving Averages. The researcher considered one year data i.e; from 01-01-2018 to 31-12-2018 in order to examine the application of Moving Averages over mutual fund investment to assist the fund managers especially Active fund managers while taking investment decisions. Data is collected directly from bluechipindia.co.in. The short period i.e; 8 period and long period i.e; 20 period Moving Averages are used to generate buy and sell signals. A buy signal is generated when short period moving average crosses over the long moving average and vice versa.

### 2.1 ANALYSIS AND INTERPRETATION:

The moving average is one of the most popular and widely used of all technical indicators. The reason for usage of moving averages is, it can be so easily quantified and tested and also it is the basis for most mechanical trend following systems in the present day scenario. A moving average, as the second word implies, it is an average of a certain body of data. If a 8-day average of closing prices is desired, the prices for the last eight days are added up and eight divides the total sum.

The short period moving average is calculated using the following formula:

$$s_t(n) = \frac{1}{n} \sum_{i=0}^{n-1} x_{t-i}$$

The long period moving average is calculated using the following formula:

$$l_t(m) = \frac{1}{m} \sum_{i=0}^{m-1} x_{t-i}$$

The moving averages are found profitable when applied to equity mutual fund but not to Debt or Hybrid mutual funds. Moving averages have generated only 2 buy signals for the equity mutual fund. It means, if the portfolio manager invest money only during these periods and can invest in some other fixed investment avenues to gain additional return to the investor instead of keeping idle like Buy and hold way of investment strategy. From the figure 1.2, it clear that portfolio manager can employ fund only 7 Months i.e; between 05-04-2018 to 27-08-2018 and 02-11-2018 to 28-12-2018. The remaining 5 Months, the fund can be invested in a fixed investment funds to gain extra return. But the cost of transaction is not considered for the study as it is very less in case of an Asset management company (AMC) but costly for the single investor as he/she has to pay huge transaction cost. Another interesting fact that the Moving average rule is not most advantageous when applies it to Debt mutual fund as shown in the Figure 1.3. Though only two signals are generated, the idle period is very less to employ it in some other asset classes. But when the Moving Average rule is applied to Hybrid mutual fund, benefit is not so exciting. Because, first three months only the fund can be diverted to other investments and the rest 9 months, it should be employed only on the mutual fund to get the full advantage. The Figure 1.1 shows the performance of bench mark index for the performance of stock markets in the selected period i.e; NIFTY. The equity mutual fund NAV data is similar to the bench mark index considered for the study.

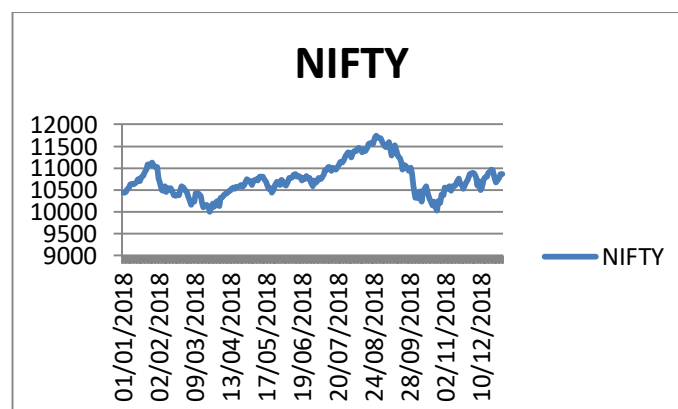


Figure: 1.1 NIFTY - Bench mark index

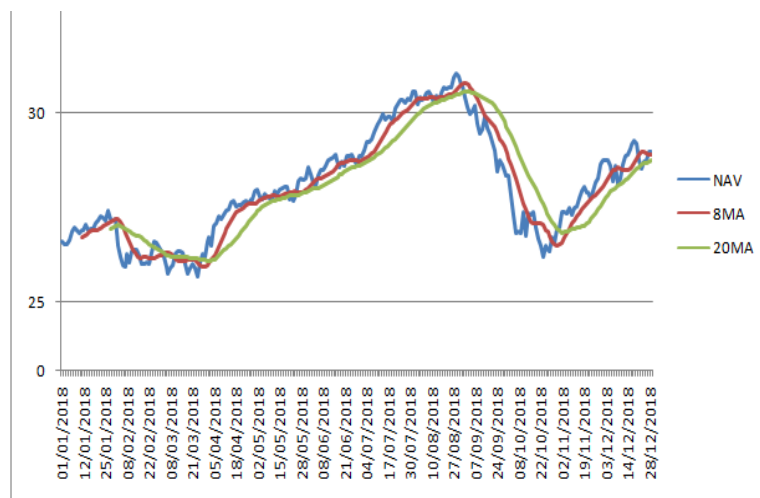


Figure: 1.2 - Axis Blue Chip Fund - Direct – Growth

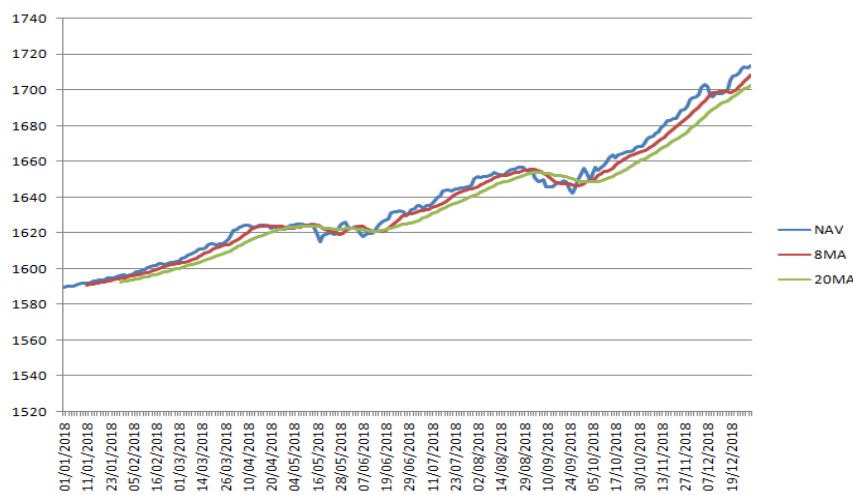


Figure: 1.3 - Axis Banking and PSU Debt Fund - Direct - Growth

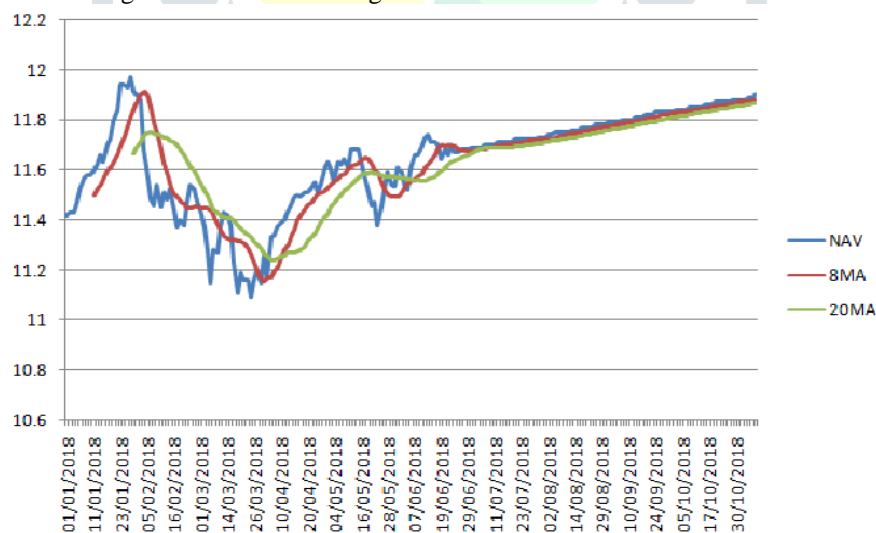


Figure: 1.4 - Axis Hybrid Fund - Regular – Growth

**3.1 CONCLUSION:**

For the efficient management of equity mutual funds, the portfolio managers should consider the Moving Average rule for taking positions in the market and exit from the market. They should understand that the equity mutual funds may perform as per the bench mark indexes and hence, they can compare the fund performance with the Index performance to evaluate them. Probably Moving Average rule with the combination of equity and other fixed investment options can significantly increase the net return to the mutual fund investors.

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