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Technical Analysis using Moving Averages



The superfluity of ULIP plans and various NAV calculations depicting whopping absolute returns is enticing investors nevertheless with miniature clarity or indistinctness on NAV pricing. At one fell swoop advice-givers have made his life more convoluted by tantalizing him with the best returns offered by funds.

While return is not the only enticement and the fact remains that an investor would be longing to acquire the fund at realistic valuation. How do we decide the max out and bottom of the pricing?

How do we evaluate

While we have a range of statistical dimensions to this, the most prominent technique is identifying the average pricing of the fund through Moving and Exponential Average.

What is Simple Moving Average?

It is a mode exercised to discover the price inclination by making out the average price. As affirmed it is moving average which adds the newest number by dropping the oldest one. It adheres to FIFO method (First-in First-out). Thus the average "moves or changes" periodically. The shorter the interval the advanced the unpredictability in mean price. Nonetheless moving average examined with stretched period will have minuscule impact with the price volatility. It is the simple average obtained by summing up the entire value and dividing by the number of values. Following is the 10-day NAV price of XYZ mutual fund. Let us figure out by computing 10-day moving average.

Day	NAV Price	10-Day SMA	Day-Wise SMA
1	10	NA	NA
2	11	NA	NA
3	12	NA	NA
4	13	NA	NA
5	13	NA	NA
6	14	NA	NA
7	15	NA	NA
8	15	NA	NA
9	16	NA	NA
10	17	13.60	First Day of SMA
11	18	14.40	Second Day of SMA
12	19	15.20	Third Day of SMA
13	20	16.00	Fourth Day of SMA
14	21	16.80	Fifth Day of SMA
15	22	17.70	Sixth Day of SMA
16	22	18.50	Seventh Day of SMA
17	23	19.30	Eighth Day of SMA
18	24	20.20	Ninth Day of SMA
19	24	21.00	Tenth Day of SMA
20	25	21.80	Eleventh Day of SMA

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The views are personal





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The moving average for day one equals 13.6 and the most recent price is 17. NAV price of the preceding four days was lesser and this will set off the moving average to lag.

While Simple Moving Average is one of the finest tools it is absolutely not flawless. It is vulnerable to negative returns. Let us realize the same with an illustration.

Let us presuppose Day 4 price is 9 instead of 13. Then the mean would be as follows

SMA for 10-day pricing on Day one is as follows=

$$(10+11+12+9+14+15+15+16+17+18)/10=13.7$$

The average of 3-days NAV is 11. But by adding day 4 NAV average has plunged to 10.5. All we required to know is whether it is a rational analysis. Most of the NAV's are improving but just because of one NAV the whole average has dipped. If we capture 3-day average there is no alteration. You would not notice variance until you take day 4 NAV.

Thus the average would plummet which presents you a notion of waning average. Day 4 could be one of the occurrences which could have crop up.

Moving Averages which are for brief period are more susceptible for newer trends. Longer moving averages are more consistent and dependable but less receptive for little and miniature changes in price patterns.

Understanding Exponential Moving Average

Exponential Moving Averages have less lag and are therefore more susceptible to the newest price trends. It assigns more weight to the latest price.

It is analyzed by adding closing prices of a security and dividing by the number of trading days by giving due weight age to the most recent price so as to have an effect on the average computation. In a nutshell it would centre more on up-to-the-minute changes than the preceding. In view of the fact that we bestow due weight age to the most recent pricing previous one would lose its prominence as they are more receptive to the recent price changes.

To determine an exponential moving average you must compute the Exponent, which is nothing but the weight age assigned to each pricing factor. This is reached out by dividing 2 with the number of days+1 for which the average needs to arrive at. The weight age for day 20 pricing is ascertained by dividing 2 with (20+1). The result is 0.952 (2/21=0.952).

Once the exponent is uncovered, we determine the SMA for the specified period.

Once you have computed the exponent and the simple MA, you are prepared to begin calculating the exponential average. The formula to derive Exponential Moving Average is as follows.

EMA=E*(C-P)+P whereas

E=Exponent

C=Current Day's Price

P=Previous Day's Average

Day	NAV Price	10-Day SMA	Exponential 2/(10+1)	10-Day EMA
1	10	NA	NA	NA
2	11	NA	NA	NA
3	12	NA	NA	NA
4	13	NA	NA	NA
5	13	NA	NA	NA
6	14	NA	NA	NA
7	15	NA	NA	NA
8	15	NA	NA	NA
9	16	NA	NA	13.22
10	17	13.60	0.1818	13.91
11	18	14.40	0.1818	14.65
12	19	15.20	0.1818	15.44
13	20	16.00	0.1818	16.27
14	21	16.80	0.1818	17.13
15	22	17.70	0.1818	18.02
16	22	18.50	0.1818	18.74
17	23	19.30	0.1818	19.52
18	24	20.20	0.1818	20.33
19	24	21.00	0.1818	21.00
20	25	21.80	0.1818	21.73

Each script/NAV will put on view a distinctive trait. When the price of a stock is soaring, the buyer gets little jumpy and begins selling. When the price is at a low level he becomes impatient to buy. Ascertaining these levels of buying and selling pressure called support and resistance can help determine the reasonable price to buy or sell a stock.

Moving averages are potential indicators for price reasoning. Whenever price traverses moving average it proliferates a signal which needs to be realized vigilantly to assess the price movement of that precise NAV or scrip.

Moving averages can be interpreted when the recent price traverses the average. An investor can draw an inference and take a position. Whenever current price crosses moving average from below we will take long position. On the other hand when the current price crosses moving average from above we take a short position.

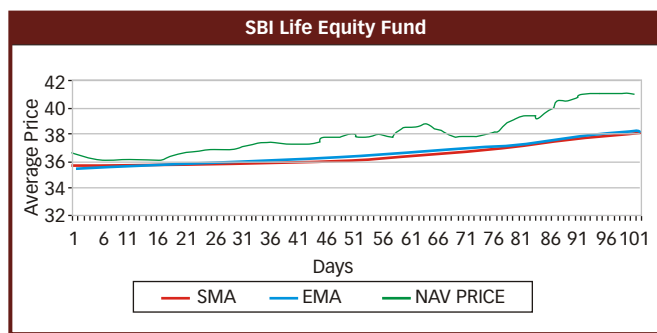
Moving Average Convergence

This is the most recognized and eminent indicator in technical analysis. It scrutinizes two exponential moving averages which in turn signify the price pattern. The MACD is merely the variance between these two moving averages graphed against a centerline. Centerline is that point where both the moving averages are certainly equal. When we analyze both the exponential moving averages we will have a short term and long term one. The reason behind this analysis is to identify the direction of a particular script or price. Hence it is MACD is calculated by deducting long term moving average from the short term one. And if the MACD is positive then it indicates that the short term moving average is above the long term one which suggests bullish sign. On the other hand when the long term moving average is above the short term one then MACE is negative which indicates bearish phase.

Filter Rules

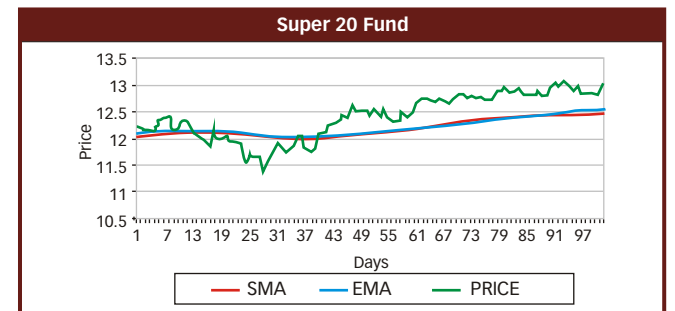
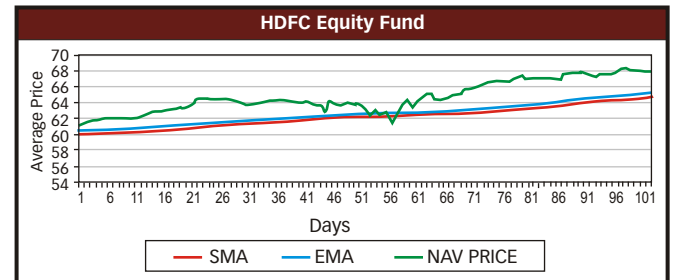
Filter delineates the automatic trading rules which encompass programmed trading schemes. An x% filter entails that a downtrend is denoted as soon as stock descends by x% from the most recent peak, and uptrend indicated whenever a stock rises by x% from the most recent low. It is evident that small filters are expected to result in manifold transactions and hence we incur colossal transaction costs. Needless to say these filters are effectual only when the cost of acquisition is quite low or minimal.

Since we have developed fair amount of understanding on both the averages now let us analyze prominent NAV pricing of insurance companies. Since 100-EMA/SMA is the most sophisticated let us evaluate the same. We are studying SBI LIFE-Equity, HDF STANDARD-Equity and Birla Super 20 Funds.



In the case SBI Life Equity Fund we had only one buy signal between Day 11 and Day 15 where the price intersects with moving average. This fund witnessed bullish trend from Day 71 onwards and has never crossed the average but is always higher the average price. Since the price curve cuts the moving average from above it is a signal to take a short position. This fund has resistance level at Day 100 where the NAV price is at 41.271. Whenever the price approaches the resistance level, there is a selling pressure because all investors who failed to sell high would be keen to liquidate. And it slipped to 41.063 on Day 101.

This fund also had one buy signal at Day 55 where it intersects with moving average. The NAV price is 62.0373 which is the support level for this fund for 100 day average. Both the averages have perfect convergence from Day 1 to Day 67 and diverge from Day 72 onwards. This fund has resistance level at 68.5326 for 100 day average.



In the case of Birla Sunlife Super 20 Fund the slope on the moving average is down at Day 16 and started sliding down from Day 22 to Day 26. This indicates a bearish sign since the cross over has happened in a short span. It has support level at Day 27 where the NAV price is at 11.4062 and resistance level at Day 92 where the NAV price is at 13.1061. Since the current price(on Day 100) is at 13.0361 there is still buy-in support at this level as it has not breached the 100-day resistance level.

Conclusion

Moving averages with short duration are more susceptible and receptive in noticing recent drift. In contrast longer moving averages are more dependable and consistent but respond only to big trends.

It will imply a trend or price inclination and communicate whether the investor is in line with the recent drive. Needless to say it is not a yardstick to discover the peak and bottom using moving averages alone as they will only complement other technical analysis.

Evaluating ULIP funds through technical indicators may give us the direction of the fund but because of illiquid nature we cannot churn the portfolio frequently as every ULIP investment has a lock-in period.

