

## **USING MOVING AVERAGES FOR INTRA-DAY TRADING**

*By Clif Droke*

In recent years traders have become more aware of the tremendous profit opportunities that moving averages can provide. Moving averages to suit many different trading purposes can be quickly constructed with today's sophisticated charting software, and many charts with moving averages are available free on the Internet. The opportunities for making money by using a moving average trading system are seemingly limitless...for the trader who knows how to use them properly. To that end, I wrote a book entitled *Moving Averages Simplified* which explains everything a trader needs to know to enhance his trading system by using moving averages.

Most traders are aware of moving averages but many do not fully comprehend the function they serve. Moving averages are a filtered expression of the time cycles that govern price fluctuations across all actively traded stocks and commodities. When a trader finds the proper timeframe to use for the stock or commodity he is trading, his winning trades are guaranteed to increase (assuming he "pulls the trigger" and executes the trade when the moving average tells him to). The emphasis should be on finding the proper moving average timeframe for what you are trading.

### **CALCULATING MOVING AVERAGES**

Simple Moving Average = Add the closing price for the selected number of period (ie 5) and divide the result by 5. Each day has equal weight in the calculation.

Exponential Moving Average = Apply a per centage of today's closing price to yesterdays moving average value. Most programs display the per centage value automatically once the moving average period is chosen. The per centage applied to yesterdays moving average value depends on the length of the moving average selected.

Weighted Moving Average = Calculate a weighting for each day in the data series. In a 5 days series today's price has 5 times more weight than the data from 5 days ago. This is similar to the exponential moving average.

Variable Moving Average = This is an exponential moving average but the smoothing factor depends on the volatility of the market. The aim is to adjust the sensitivity of the moving average so it does not give misleading signals in volatile markets.

Triangular Moving Average = Most weight in the calculation is placed on the middle portions of the data series. It is really a double smoothed moving average as is the same process used in Stochastic calculations for %D.

Volume Adjusted Moving Average = This uses changes in volume to modify the variable weighting used in the moving average calculation. The day with the most volume gets the highest weighting.

### **USING MOVING AVERAGES**

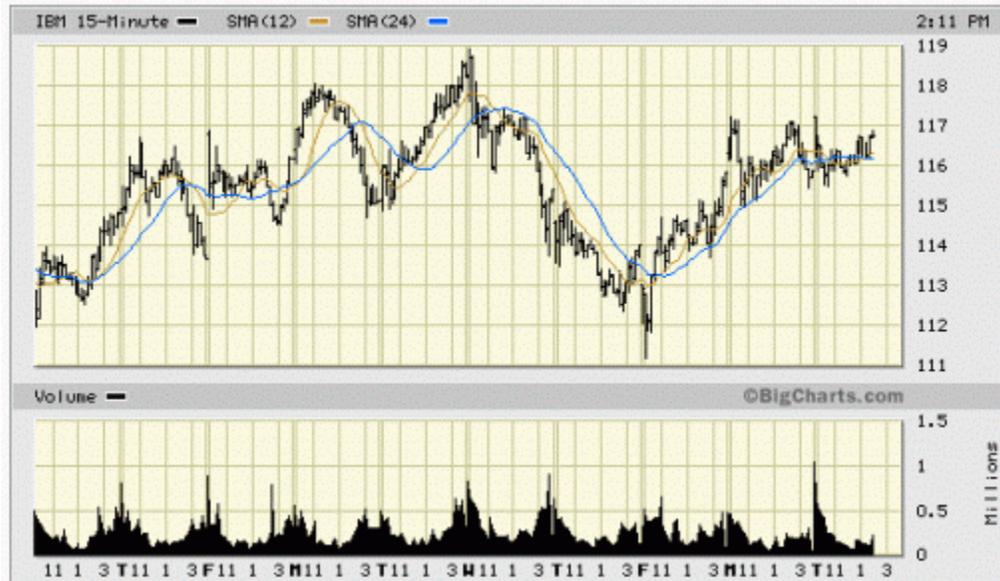
As we mentioned above, moving averages are essentially expressions of the dominant cycles which govern price movements. Cycles are the dominant controlling factor in any market and are basically measures of the ultimate

controlling factor of day-to-day human existence: time. The best expression of time can be found in the clock on the wall, which has a circular face (thereby emphasizing its cyclical significance, since the word "cycle" means "circle") and is composed of twelve units, or hours, which require two complete revolutions in order to form a day. Each hour is composed of 60 minutes, which can be further segmented into two 30-minute intervals.

Cycle theorists often discuss the concept of the cycle in cryptic terms far above the comprehension of most people. But all it really boils down to is the realization that a cycle is a repetition in time, and the best expression of this is found in the clock. While a complete discussion of time cycles (a.k.a., market cycles) is beyond the scope of this article, suffice it to say that the complete cyclical time series, or cycle scale, for all actively traded stocks and commodities, and across all timeframes is as follows: 2, 4, 6, 8, 10, 12, 20, 24, 30, 40, 60, and 120. Note how each of these numbers fits perfectly within the dominant timeframes that compose the clock. Of these numbers, 2 and 4 are the least important (serving mainly as multipliers for the other numbers) and 10, 20, 30 and 60 are the most important (for trading purposes). It is the interaction between the 12- and 24-period cycles that is most important for trading purposes, including on the day-trading level.

Stock traders who wish to apply moving averages for day-to-day trading should experiment with MA timeframes such as 30-minute, 60-minute, and 120-minute time intervals. Some of my readers have been quite successful in taking the principles they have learned in *Moving Averages Simplified* and applying it to extremely short-term charts. For example, one reader wrote to inform me of his success using a triple-crossover series of moving averages composed of the 6-minute, 12-minute and 20-minute moving averages. This is a slightly more sophisticated series of moving averages than I would advise, however, as I prefer to stick to a simple double-crossover MA series (the fewer the variables the more likely you will find success). Remember, it is the interaction between the numbers 12 and 20 which prove most significant, so I recommend using the 12-minute and 24-minute moving averages and watching the interaction between the two to generate trading signals.

For example, note the chart example provided here of IBM. This chart shows IBM's price changes at 15-minute intervals across five days. We have chosen to use a 12-minute simple moving average (SMA) and a 24-minute SMA to generate our trading signals. Using this system, a trader over the past few days could have profited by following the short-term trends as highlighted by the moving average signals. In this case, the trader would have bought initially on Monday around 1 p.m. when IBM share prices were approximately \$113/share when the 12-minute SMA crossed above the 24-minute SMA. He would then have sold or sold short on Tuesday at \$117 when the 12-minute SMA fell below the 24-minute SMA. The next buy signal didn't come until Friday near the \$113 level at around 11a.m. By Monday his trading profit had grown nearly \$4/share and he would have still been long as the moving average crossover system had not yet generated a sell signal. This method works especially well in stocks that are very actively traded, like IBM.



Another important consideration for undertaking this trading method is that both moving averages in the double-crossover series should be rising when a buy crossover signal is given, and should be falling when the sell crossover signal is given. This provides confirmation that the momentum and the time cycle has shifted in the stock you are trading and that it is reasonably safe to execute a trade in the direction provided by the moving averages. Also, since each stock or commodity has its own peculiar cyclical "rhythm" you may have to experiment by either loosening or tightening the moving average timeframes of the series you decide to use. For example, in the stock of General Motors (GM) I find that a 12-minute and 20-minute moving average series works best, whereas for IBM the 12-minute and 24-minute MA series works best. Use your own judgment after you have carefully experimented.

In conclusion, trading systems that incorporate moving averages afford today's trader with magnificent profit potential while at the same time greatly decreasing the risk of loss and increasing the probability for success. Use them only after carefully experimenting and finding the moving averages that best suits the timeframe and asset you are trading.

**About the author:** *Clif Droke is the editor of istockforecast.com and has written numerous books on technical market trading, including four books in the Simplified series for Marketplace Books (Technical Analysis Simplified, Elliott Wave Simplified, Moving Averages Simplified, and Gann Simplified).*