Study of Time Spent in Trending and Sideways Markets

By: Thomas F. Basso
CEO, Trendstat Capital Management, Inc.
March, 1999

Purpose of the study:

Investors who time the stock market are constantly faced with the prospect of becoming impatient when, over a shorter time frame, there doesn't seem to be value added by a timing strategy. Frequently, their excuse for abandoning a timing strategy is "it doesn't work anymore" or "I could have made more money with a buy and hold strategy."

Investor psychology is heavily at work here. The investor, at that point, does not remember why they developed or started using their timing strategy in the first place. Many times, I have seen investors forget what to expect in the best case, worst case, and expected case scenarios. I maintain that if the investor can understand exactly what to expect from a strategy, they will ve less surprised when the timing strategy does exactly as expected. I constructed this study to help investors learn more about the action of the stock market and what timing programs generally should provide the investor.

Markets move up, down and sideways:

All markets spend their time moving up, down or sideways. Markets are a supply and demand battle between buyers and sellers. When both buyer and seller are happy with a price, a transaction takes place and a price is established. If the buyers are more aggressive than sellers, then prices will trend upward. If sellers want to sell more than buyers want to buy, prices will be soft and head down. When buyers and sellers are roughly in equilibrium, prices will drift, creating a sideways market.

How to measure the trend of a market:

In order to measure the trend of the market, I created two simple exponential moving average.
An exponential moving average uses the general formula of:

Today's Average = Yesterday's Average + Beta * (Today's Price – Yesterday's Average)
Where:

Beta = 2 / (Number of Days +1)

I used betas of 0.25 and 0.05 or the equivalent of 9 and 41 days respectively. If the shorter term, faster moving average crossed the longer-term, slower moving average, a directional change was noted. If that change carried more than 5% in that direction, I deemed it a successful trend. If it failed to move at least 5% before the next direction change, I labeled it sideways market action.

The theory of timing in an up stock market:

When a market shifts from a "down" to an "up" reading on the indicator, a timing model moves all your cash to a stock-oriented mutual fund. It does not buy at the exact bottom. Actually, the indication of a change of direction happens after the market bottom. This means the model will miss out on a small amount of the up move. As the market moves up, a growth stock fund typically moves up. What the investor should expect during this type of market are large positive returns, but probably a struggle to keep up with a buy-and-hold strategy.

Timing a down stock market:

When a market shifts from an "up" to a "down" reading, a timing model should move your entire portfolio from a growth stock mutual fund to a money market fund. The timing strategy usually will not sell at the exact top. Money market funds are priced at $1.00 per share each day and simply pay the investor interest. With no risk due to stock market fluctuations, money markets become a good place to "ride out the storm" of a down market move. In this type of market, a timing model attempts to produce about a break-even return and at the same time drastically outperform a buy-and-hold strategy by not taking substantial losses.

Timing a sideways stock market:

Timing sounds like a flawless strategy if you read the up and down market sections above. But, unfortunately, there are periods where the timing programs produce negative returns and underperform the market. When the market drifts sideways, the trend indicators can turn up, then down, then up, then down… This is known as being "whipsawed". Each time the strategy get an "up", if buys. Each time it gets a "down", the strategy sells, usually at a small loss. If the market drifts sideways for some time, multiple "small" losses can add up to a significant loss. Since, by definition, the market is drifting sideways, a timing program will underperform the market while it takes these small losses. Some investors view the losses during sideways markets as "the cost of insurance" in order to be positioned for the large up moves and minimizing the damage of major down moves.

Time spent in up, down and sideways markets:

A study of the S&P 500 Index from January, 1964 to February, 1999 indicated that the market has spent approximately 28% of the time in the "up" direction and only 7% of the time in the "down" direction. The remaining 64% of the time, the market moved in a sideways direction.

Study of Market Direction
1/94 to 2/99

Up Direction	28.1%
Down Direction	7.7%
Sideways Direction	64.2%
Total	100%

This means that the periods when **timing can add significant value occur only about 36% of the time**. The rest of the time, timing will tend to be whipsawed. Despite these lopsided time period statistics, timing can add a lot of psychological comfort to the client. To be a successful investor, one must sometimes do things that are uncomfortable. For instance, after seeing the market run up with reckless abadon, it's tempting to chase the buy and hold returns. Then, the investor gets into a buy and hold strategy and ends up suffering a sharp decline somewhere along the way that timing strategies might have helped avoid.

Another tough thing to do is to be patient. With the market in sideways activity for 64% of the time, it's tempting to get bored or irritated at the lack of substantial profits or even losses with a timing program. However, when the market moves up or down, the strategy should add some value. This means that roughly four out of ten years, timing has added value. This also means that six out of ten years, timing would struggle to add value. If a timing program is to be successful, over the long-term the investor needs to have the patience to see the strategy through up, down and sideways periods.