THE PSYCHOLOGY BEHIND COMMON INVESTOR MISTAKES

By R. Douglas Van Eaton

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Behavioral finance, a relatively new area of financial research, has been receiving more and more attention from both individual and institutional investors. Behavioral finance combines results from psychological studies of decision-making with the more conventional decision-making models of standard finance theory.

By combining psychology and finance, researchers hope to better explain certain features of securities markets and investor behavior that appear irrational. Standard finance models assume that investors are unbiased and quite well informed. Investors are assumed to behave like Mr. Spock from Star Trek, taking in information, calculating probabilities and making the logically "correct" decision, given their preferences for risk and return. Behavioral finance introduces the possibility of less-than-perfectly-rational behavior caused by common psychological traits and mental mistakes.

Six common errors of perception and judgment, as identified by psychologists, are examined in this article. Each has implications for investment decision-making and investor behavior. An understanding of the psychological basis for these errors may help you avoid them and improve investment results. And in some cases, market-wide errors in perception or judgment can lead to pricing errors that individuals can exploit. Understanding the psychological basis for the success of momentum and contrarian strategies can help investors fine-tune these strategies to better exploit the opportunities that collective mental mistakes create.

OVERCONFIDENCE

A good starting point for a list of psychological factors that affect decision-making is overconfidence. One form is overconfidence in our own abilities. A great number of psychological studies have demonstrated that test subjects regularly overestimate their abilities, especially relative to others. Studies also show that people tend to overestimate the accuracy of information. With respect to factual information, research subjects consistently overestimated the probability that their answer to a question was correct.

You might expect that professional stock analysts are less prone to psychological biases than non-professional investors and the general public. With regard to overconfidence, however, this is not the case. A leading researcher found that when analysts are 80% certain that a stock is going to go up, they are right about 40% of the time.

How does overconfidence affect investment behavior?

Models of financial markets with overconfident investors predict that trading will be excessive. One recent study used a creative approach to see if overconfidence is related to high levels of trading. Many psychological studies have shown that men are more prone to overconfidence than women. If overconfidence causes overtrading, then men should exhibit their greater tendency toward overconfidence by trading more. The results of the study show exactly that—for a large sample of households, men traded 45% more than women, and single men traded 67% more than single women over the

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period of the study.

Is the active trading that overconfidence leads to actually 'excessive,' causing lower performance? A study of the trading activity and returns for a large national discount brokerage suggests that it is. For all of the households, returns averaged 16.4% over the period. However, those that traded the most averaged 11.4% in annual returns, significantly less than for an account with average turnover. Over the same period, the S&P 500 returned 17.9% on average.

What, if anything, can investors do about the general tendency toward overconfidence?

You can profit from this research only by heeding its message: Trade less. This is perhaps more easily said than done. Placing too much confidence in an analyst's buy/sell recommendation or earnings projection may lead to excessive trading even without any illusions about your own stock-picking abilities.

Other aspects of overconfidence are more subtle. People prefer to bet on the flip of a coin if it has not already been tossed. Psychologists relate this to a tendency for people to believe that they either have some ability to foretell the future or some control over the outcomes of future events.

Another behavior that is related to overconfidence in our abilities is the tendency to treat historical information as irrelevant and to place much more importance on current circumstances as a determinant of future outcomes. The psychological basis for such a tendency is called "historical determinism," the belief that historical events could or should have been predictable given the circumstances of the past. For investors, this translates to a belief that market events, such as the 1929 crash, could not have developed any other way. Only if we determine that current circumstances mirror those of some past time period will we be inclined to give history its due. Our collective social memory may tend to emphasize things that are seen as directly causing past events, and exclude circumstances that suggest a different outcome. The cry of "this time it's different" has a special place in investment lore. It is perilous to ignore stock market history based on a belief that present circumstances make historical market performance irrelevant to current decisions.

FEAR OF REGRET

A second mental error that can affect decision-making is an excessive focus on the potential feelings of regret at having made a poor decision (or a 'good' decision that turns out poorly). This type of error is rooted in most individuals' (sometimes extreme) dislike for admitting they are wrong. The tendency to feel distress at having made a mistake that is out of proportion to the size and nature of the error is what psychologists label the "pain of regret." The fear of regret manifests itself when the potential regret from making an error has an influence on our decision-making that is out of proportion to the actual penalty an error would impose. Some behavioral models are constructed around the idea that people make decisions so as to minimize the potential regret that may result.

The fear of regret influences behavior when individuals procrastinate in making decisions. Studies have shown that people will postpone a decision, claiming that they are awaiting an upcoming information release, even when the new information will not change their decision (called the disjunction effect by psychologists).

The fear of regret can play an important role in our investment decision-making in other ways as well. In stock transactions, acting so as to avoid the pain of regret can lead to holding losing stocks too long and selling winners too soon. When stocks go down in value, investors seem to delay the selling of those stocks, even though they likely have not met expectations. Selling the position would finalize the error and the pain of regret is delayed by not accepting the purchase as an error. Winning stocks, on the other hand, contain the seeds of regret. The sale of appreciated shares removes the possibility that those shares will fall in value along with the potential for regret should this occur before the shares are sold. Besides avoiding poor decisions from too much focus on the fear of regret, you may also be able to improve performance by exploiting pricing patterns that result from behavior rooted in the fear of regret. A general tendency among investors to hold on to losers too long will slow the price declines, since less shares are offered for sale. Similarly, a tendency to sell winners too soon will increase the number of shares for sale and slow price increases. Both of these effects can enhance opportunities for investors.

Strategies based on price momentum and earnings momentum seek to exploit the fact that price changes occur slowly, over a sometimes prolonged period of time. Studies show that stocks that have performed the best (or worst) over six months to a year are likely to remain good (or poor) performers over the next year. There has been considerable research over the years showing that firms that announce surprisingly good (or poor) quarterly earnings tend to outperform (or underperform) for up to a year after the earnings announcement.

While the success of momentum strategies may also be a result of other psychologically driven behaviors, a tendency to sell winners too soon and losers too late will, in general, make price adjustments to a new equilibrium level a more drawn-out process than it would otherwise be. Investors can purchase stocks of firms that are in an established uptrend, with both earnings and price momentum, and hold them until the trend has reversed. For stocks that show a negative trend in earnings and price, the message here

is: Get out. The deterioration will likely be longer and more severe than you think. Such discipline should reduce the tendency to sell winners too soon and hold losers too long, and improve investment results.

COGNITIVE DISSONANCE

A psychological characteristic that is related to the fear of regret is the desire to avoid cognitive dissonance. This psychological trait is one you might remember from Psychology 101. Without the jargon, the reference is to a desire to avoid believing two conflicting things. If one of the beliefs is supported by emotional involvement or attachment, the brain will attempt to avoid or discount a conflicting belief and seek out support for the preferred belief.

In the classic study of this characteristic, researchers found that once a person had made a decision and purchased a particular automobile, they would avoid ads for competing models and seek out ads for the model purchased. Avoiding the pain of regret may be the basis for this behavior. One way to avoid regretting the purchase decision is to (irrationally) filter the information received (or believed) after the decision has been made. Alternatively, people can minimize the importance of subsequent information that would call their original decision into question, if the truth can't be avoided or denied. Beliefs that we wish to maintain are defended by many mechanisms, even if the strong desire to maintain existing beliefs has a less-than-rational basis.

How can you adjust for the tendency to avoid or deny new, conflicting information? As in other areas, investment discipline can help. By writing down the reasons for purchasing a stock and re-evaluating their validity over time as dispassionately as possible, investors can force themselves to maintain a selling discipline. If the reasons for purchase no longer hold and the share price indicates deteriorating fundamentals, admitting a mistake may often be the prudent thing to do. Another disciplined approach is to set a time limit for a newly purchased stock to perform as expected. If, for example, the earnings and/or price expectations have not been met after three months, then the stock must go. While this is not necessarily a good rule for value investors (since that approach often requires longer holding periods before expectations are met), it can help those who pursue a growth strategy to avoid holding losing positions over a prolonged period of price deterioration.

ANCHORING

The three psychological characteristics discussed so far are all based, to some extent, on feelings and emotions. But some decision-making errors result from mental shortcuts that are a normal part of the way we think. The brain uses mental shortcuts to simplify the very complex tasks of information processing and decision-making.

Anchoring is the psychologists' term for one shortcut the brain uses. The brain approaches complex problems by selecting an initial reference point (the anchor) and making small changes as additional information is received and processed. This reduces a complex problem, evaluating all information as a whole as new information is received, to the simpler task of revising conclusions as each new bit of information is received.

In the case of bargaining, a salesman may begin with a high price to bias upward the final price. Research shows that the listing prices for homes influence estimates of their values. The listing price apparently serves as an anchor, even though it does not necessarily contain relevant information about the home's value. Recent prices or recent earnings performance may serve as a similar psychological anchor for investors, and may have predictable effects on subsequent returns.

Understanding the role of anchoring in the decision-making process can help you avoid some investment pitfalls. "Bottom fishing," the practice of buying stocks that have fallen considerably in hopes of getting them cheaply, can be quite hazardous to your wealth. The motivation behind this strategy is similar to the concept of anchoring. A higher recent price is taken as evidence of value, so that the new price seems cheap.

The old pros say, "Don't bottom fish," but they also say "Buy on weakness." What's the difference?

If you have evaluated a stock and determined that you would like to accumulate a position, then you can and should time your buys to take advantage of the ebbs and flows in the market and price weakness in the stock when it goes below your buy price. If, on the other hand, a sharp price decline lies behind the decision to buy and a recent higher price looms large in the stock's initial attraction, beware—the odds are against you.

One effect of anchoring on investment decisions is similar to that of the fear of regret; losing positions will be held too long and improving stocks will be sold too soon. In each case the effect of a recent price as a psychological anchor in the complex process of stock valuation will slow the revision of valuation estimates. Losers will appear cheap and winners will seem to have gotten ahead of themselves. As with the fear of regret, anchoring can slow the process of revaluation and contribute to the gains from momentum strategies. In general, the less clear the underpinnings of a stock's value, the greater the importance of an anchor in the process of establishing value. The valuations of highly speculative stocks, such as Internet high flyers without visible earnings, will likely be more influenced by recent prices, than those of stocks with visible and predictable earnings.

REPRESENTATIVENESS

Another shortcut that the brain uses to reduce the complexity of thought is called representativeness by psychologists. This is an assumption the brain makes that things that share similar qualities are quite alike. Classifications are made based on a limited number of shared qualities.

One example of representativeness in our thinking is the tendency to classify people as either "good" or "bad" based on some short list of qualities. When we do this, we gain in simplicity and speed, but at the expense of ignoring the much more complex reality of the situation.

The effect of representativeness in investment decisions can be seen when certain shared qualities are used to classify stocks. Two companies that report poor results may both be classified as poor companies, with bad management and unexciting prospects. This may not be true, however. A tendency to label stocks as either bad-to-own or good-to-own based on a limited number of characteristics will lead to errors when other relevant characteristics are not considered.

Representativeness may also be related to the tendency of stock prices to reach extremes of valuation. If poor earnings and share price performance has a stock branded as "bad," representativeness will tend to delay the reclassification of the stock as one investors would like to own. On the other hand, "good" stocks may continue to be classified as such by investors well after the firm's prospects for either earnings or price appreciation have diminished significantly.

Contrarian or value strategies seek to exploit just such erroneous classifications. If a firm has been classified by most investors as a bad one and the stock as a loser, initial changes in the company's outlook may leave the classification in investors' minds essentially unchanged. This collective classification can lead to stocks being unloved and underpriced. A value investor seeks to buy the stocks others classify as "bad," ideally at the time when the greatest majority holds this view. When fundamentals have started to deteriorate but the majority of investors have not yet reclassified the stock in their minds, it is often an ideal time to sell.

MYOPIC RISK AVERSION

The term "myopic risk aversion" refers to the tendency of decision makers to be shortsighted in their choices about gambles and other activities that involve potential losses. Much research has examined what types of gambles people will accept, the effects of how the possible outcomes of the gamble are presented, and whether people make consistent choices.

As an example of how these results can apply to investment decision-making, consider an investor saving for retirement. Each year's investment in equities rather than a lower-risk alternative can be viewed as a single gamble. Unlike casino gambling, however, the expected payoff is positive, and the investor has the opportunity to invest in equities over a period of many years.

Two leading researchers in behavioral finance have concluded that investors in this situation tend to hold less than the optimal amount of equities because they place too much emphasis on the potential loss from a single year's investment in equities. They term this shortsightedness myopic risk aversion.

In one study, investors in a company retirement plan chose larger equity allocations after they were shown the actual results of investing in equities over many different 20-year periods. The research suggests that if investors focus on the distribution of outcomes for the whole period, they are more likely to make the correct decision.

SUMMARY

A better understanding of the psychology of investor mistakes can reduce their effects on investment decisions. Here is a list of the most common psychological effects, and how you can reduce their impact and incorporate them into your own investment decisions:

- *Overconfidence*: Trade less, especially in taxable accounts. In terms of probabilities, you are not as good at investment decisions as you think you are. Discount the opinions of analysts, who tend to go to extremes, either overly confident or overly pessimistic.
- *Fear of regret/pain of regret*: Don't let the prospect of regret at making a decision that turns out poorly have disproportionate weight in your decisions. Convince yourself that unrealized losses are equivalent to realized losses.
- *Cognitive dissonance*: Seek out contrary opinion. Research doesn't stop when a purchase is made. Strive to identify your mistakes as early as possible and take pride in the ability to do so.
- *Anchoring*: Be aware of how recent prices, earnings and growth rates can serve as psychological anchors in thought processes. Avoid price-driven "bottom fishing."
- *Representativeness*: Step back and look at the whole picture on a stock. Don't place too much emphasis on a few qualities that good stocks or loser stocks share. Winners turn into losers and vice versa, so be open to their changing nature.
- *Myopic risk aversion*: Long-term investors should make asset allocation decisions based on possible multi-year outcomes and not focus on single-period return possibilities. ◆