

Lottery Players/Stock Traders

Lottery vs. Stock Trading

Lottery winners receive, on average, only 49 cents of every dollar paid by all ticket buyers. So, the expected return of a lottery ticket is negative, a 51 percent loss. Lottery buying is a negative-sum game. Stock trading also is a negative-sum game. But whereas the frame of lottery-ticket buying as a negative-sum game is transparent, the frame of stock trading as the same game is opaque.

Stock Holding vs. Stock Trading

The stock-holding game is a positive-sum game; buyers of stocks can expect to receive, on average, more than they spend.

The stock-trading game, however, is a negative-sum game. In the absence of trading costs, management fees, and expenses, stock traders can expect to match the returns of an index of all stocks. But after trading costs are considered, they can expect to lag that index. Indeed, Barber and Odean (2000a) found that not only do stock traders, on average, lag the market but that the magnitude of the lag increases with the amount of trading.

Why do we trade?

- 1. We Think We're Above Average (Overconfidence).** According to a May 2001 Gallup/PaineWebber (2001) survey of individual investors, investors at that time expected, on average, that the stock market would provide a mean 10.3 percent return over the following 12 months. They expected that their *own* portfolios, however, would provide a mean 11.7 percent. Investors expected, on average, to be above average.

The unrealistic optimism that people display in the investment arena is similar to the unrealistic optimism they display in other arenas. Taylor and Brown (1988) reported that people expect higher- than-average satisfaction in their first jobs, higher- than-average salaries, and a higher-than-average likelihood of having gifted children. They also expect a lower-than-average likelihood of being a crime victim, having trouble finding a job, and becoming ill.

- 2. We Have Aspirations (Prospect Theory).** All people have aspirations. About the appeal of lottery tickets, Pope (1983) wrote that people “can dream from age nineteen to ninety-nine that they will become millionaires after the next drawing” (p. 156). Some people who aspire to be millionaires can expect to reach their aspirations through steady contributions to IRAs and 401(k) accounts. But for others, stock trading and lottery playing offer the only chances. Kahneman and Tversky (1979) found that people in the domain of losses accept gambles that they reject when they are in the “domain of gains.” People in the domain of losses are people who have, in the language of the Chicago

lottery player, “dug so many holes” for themselves that they gamble because they want a “ticket out” of poverty, not because they like risk.

- 3. We Have Emotions (Aversion to Regret).** Hope and fear may be the strongest emotions that drive lottery players and stock traders, but regret is not far behind. Regret is the pain we feel when we find, too late, that a different choice would have led to a better outcome. Aversion to the pain of regret affects our choices. For example, Bar-Hillel and Neter (1996) found in experiments that people are more reluctant to exchange lottery tickets than other items, such as pens. They attribute the reluctance to aversion to regret; how would you feel if “your” lottery ticket won in the hands of someone else?
- 4. We Like to Play.** Stock traders and lottery players can choose among games that promise the experience of flow. Lottery designers offer lotteries with different prize structures, different levels of complexity, and different “play values.” A game with high play value is a game that provides the sense that skill is exercised. Lotteries that allow players to pick their own numbers offer more play value than lotteries in which numbers are assigned. Similarly, the wide array of stocks, bonds, options, and mutual funds, as well as the wide array of securities advice and research tools, enhances the play value of securities trading. Illusion of control leads people to act as if they have control in situations that are, in fact, determined by chance. The illusion of control leads lottery players to believe that their chosen numbers have better odds than random numbers, and it leads stock traders to believe that their chosen stocks have better odds than stocks chosen by darts thrown at stock tables.