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Investor Behavior in the Midst of a Global Pandemic

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Introduction

Investors partaking in portfolio and asset management through the stock market and other avenues do so with certain reasoning and methods in hand. Each investor may have different interests and risk tolerances that guide their choices for investment. Behavioral finance allows for an in-depth look at an investor's actions and the influencing psychology behind it. Before this approach was popularized, early studies of finance assumed that investors were always rational in their decision making and put resources only into opportunities that would increase their utility or happiness. The behavioral finance approach takes a more comprehensive look at these behaviors and takes on the assumption that investors can be irrational at times. There are many theories and biases included in this discipline that attempt to explain these behaviors, such as prospect theory, overconfidence bias, home bias, and frame dependence bias. During the current worldwide pandemic due to COVID-19, investors are more perplexed than ever trying to navigate the volatile market and decide what assets will bring them the greatest returns in a time of economic crisis. Investor activity during this time of economic uncertainty during the pandemic has aligned with behavioral finance theories and concepts because with increased trading activity in the market, there are also universal feelings of concern and perplexity among investors.

History of Behavioral Finance

Before behavioral finance became popularized, researchers and scholars assumed that investors were rational and made decisions solely based on specific calculations and other quantitative data. This traditional approach to finance, seen in the mid 18th century, explained behavior based on the expected utility theory, which stated that utility was a measure of the level of satisfaction an individual experienced when consuming a good or service. This calculation of utility was among one of the sole reasons traditional theorists said investors behaved the way they did (Kapoor & Prosad, 2017).

In 1844, the concept of the rational economic man emerged and eventually became the basis of the traditional financial behavior framework. This theory said the reason behind behavior was maximizing satisfaction (a term used interchangeably with utility) given the constraints that one may face. This idea assumes perfect rationality, perfect self-interest, and perfect information. According to this theory, investors arrive at their rational decisions by updating their existing knowledge as new information emerges and using this comprehensive knowledge to maximize utility. While these theories may be able to explain some investor behavior, there were issues when attempting to describe the disruptions and abnormalities in the stock market (Kapoor & Prosad, 2017). These disruptions can include stock market bubbles, overreaction, underreaction, momentum and reversals. Stock market bubbles occur when investors overvalue a stock and drive its price above what it is truly valued at based on a certain valuation model (Kenton, 2020). Overreaction and underreaction show the effects of emotional responses to news surrounding companies involved in the market ("What is Overreaction?"). The momentum or reversal of a stock conveys the speed of the price changes to help identify trends in its performance (Dhir, 2020). Thanks to psychologists who sought reasoning behind these abnormalities in the 1970s and 1980s, the discipline of behavioral finance was born.

Behavioral Finance Theories

With the emergence of the field of behavioral finance came many theories to support it. Among these theories are prospect theory, investor sentiment, framing effect, overconfidence, home bias, self-attribution bias, and more. Perhaps the most popular theory among these is prospect theory, which explains why investors may feel greater pain with a loss compared to an equivalent amount of gain. This loss aversion shows that individuals attach value to their gains and losses. Researchers say that because individuals do not have a uniform risk attitude, the graph is concave shaped for gains and losses. Also, individuals estimate the value of a prospect, or potential investment, in regards to some sort of reference point. This could be their current level of wealth, the status quo for their portfolio, etc and can weigh heavily on their decision making. As mentioned before, loss aversion occurs when the losses of an investment loom larger than the gains, or the motivation to avoid losses is seen as a higher priority than seeking gains or profits from the opportunity (Kapoor & Prosad, 2017). See Figure 1 to the left for a visual representation of this theory (Goncalves, 2015). The graph shows that in this particular example, the negative psychological value of a $100 or $200 loss is much greater than the positive psychological value, or happiness, of a $100 or $200 gain. An investor’s decision making may be greatly influenced by the motivation to avoid these losses, which may cause them to make less risky investments.

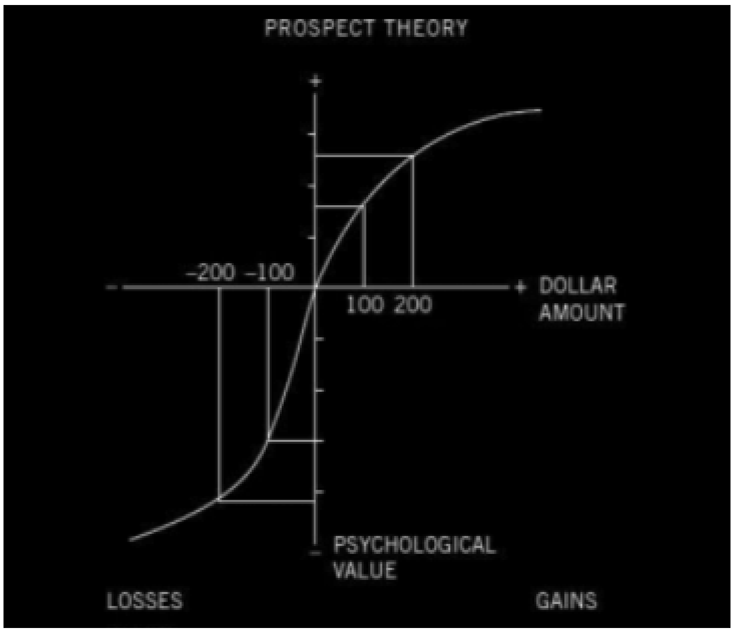

Figure 1. *Prospect Theory.* By D. Goncalves, 2015.

Investor sentiment is another popular theory among behavioral economists, and it has to do with the optimistic or pessimistic attitude of an investor regarding future stock market activity. This attitude can be measured by different consumer indexes, including the University of Michigan Consumer Sentiment Index, Investor's Intelligence, and more. This particular theory affects investing activity within the stock market through asset valuation. A time of high investor sentiment can indicate investors are feeling bullish about the market, meaning that they believe the market is on the rise. Investor sentiment can bring about another theory, overconfidence, which is as simple as the name implies. If investors are overconfident in their knowledge and skills with their investment activity, there is a possibility that they will experience excessive trading, which can be detrimental to a portfolio (López-Cabarcos et al, 2019). While it is obvious that trading needs to occur for a portfolio to bring about returns, overtrading can cause an investor to miss key opportunities to make a profit in the market and make changes even though their portfolio is performing well in the market already as it is.

Most of the theories presented in the behavioral finance field are truly basic psychological theories that are then applied to investing. For instance, the framing effect is known as the tendency to react to a particular choice in a certain way, depending on how it is presented. For investing, this could mean that an individual could react to an investment opportunity not necessarily based on the potential gains or losses it may hold, but on how the opportunity is presented or worded, possibly in a very positive or negative way. To give a very basic example, if an individual was presented with two choices, and Program A would result in 200 lives lost and Program B would result in 400 lives saved, you may be more likely to choose Program B. The idea of saving 400 lives over losing 200 is more appealing. But, what if Program A saves 500 lives and Program B loses 300 and those details were simply left out of the description? It is important to have well-rounded and comprehensive information when making investment decisions, even if that does include finding out some negative information. It is better to be aware of what could happen than to be blindsided by it later.

Going along with this, another well-known psychological concept is self-attribution bias, which occurs when individuals take credit for their successes but place blame on outside factors when losses occur. This can be seen widely with investors, who attribute their gains to their skills in investing and blame the market for their losses. Confirmation bias also falls into this category and is known to be the act of seeking out and recognizing information that supports one's preconceptions. For example, an investor may strongly believe in a certain company and only look at the positive news surrounding the organization, when in reality there may be other negative press that should be accounted for when evaluating a company (Illiashenko, 2017).

The home bias is seen when investors choose to put capital into companies they are comfortable with and avoid stocks that are foreign to them. This can cause an undiversified portfolio, which causes an investor to take on unnecessary risk (Illiashenko, 2017). Action bias is another popular theory, and simply put, it is the temptation of investors to make changes to their portfolio even when it may already be well-diversified and performing well in the market. If there is a lot of commotion in the market, investors may feel the urge to buy and sell, even though their portfolio is already at peak performance (Waring & Mamou, 2020).

The COVID-19 Pandemic

At the end of 2019, the most intelligent scholars, nor investors, would be able to predict what would happen in a mere couple of months. The COVID-19 Pandemic put the world on lockdown and forced us to learn a new normal of mask-wearing, working from home, social distancing, and more than normal hand washing. As the virus spread throughout the world and loomed closer to the United States in early March, markets across the world experienced large selloffs and high volatility for multiple days in a row. In our own country, these dropoff levels had not been seen since the market crash of 2006-2009, or better known as the housing crisis.

With the pandemic causing high volatility in the market, stock prices plummeted, causing the NASDAQ and the S&P 500 to enter a bull market. It was the fastest market drop in history, accelerated by computerized algorithms with automatic massive buy and sell programs. There were 4 separate occasions where circuit breakers temporarily shut down the market because price changes exceeded 5% during the night or 7% during the day. These circuit breakers locked prices in the market for 15 minutes so that they could not drop any lower, and investors were shocked. The circuit breaker for a 20% drop in prices during a single day was never triggered, thankfully (Ziemba, 2020).

Because of this unforeseen market crash, the Federal Reserve had to make emergency interest rate cuts two separate times. However, these rate cuts caused the market to think that real trouble was on the horizon, which led to even heavier selling on the market. By May, the stress of the unknown future of the market settled and the Fed announced that they would provide fiscal stimulus to the economy. After this, the S&P 500 rose to a value of about 3000, which was only 10% down from its all-time high. In June, the index exceeded 3200 to nearly cover the 2020 losses and ended up about even at the fiscal year-end. During the market rally, many stocks hit hard in March saw hope on the horizon as prices increased and the market continued to rise. Throughout the year, many financial stimulus packages would be passed by the federal and state governments to help businesses and individuals get through the crisis (Ziemba, 2020).

Behavioral Finance in the Pandemic

The article titled “COVID-19 and Investor Behavior” by Ortmann, Pelster, and Wengerek takes a unique approach to studying investment activity during this unprecedented time. Specifically, the article takes an in-depth look into the behavior of retail investors, which are individual, non-professional investors who buy and sell securities, mutual funds, and exchangetraded funds (also known as ETFs). Although this group of investors may be known for being less knowledgeable than their professional counterparts, they do make up a large portion of the investment market and have a large impact on market sentiment, or the overall attitude of investors within a financial market ("Retail Investor Definition"). Ortmann et al found that as the pandemic began to unfold, trading activity increased tremendously, showing that a great number of new investors were entering the market. Figure 2 below shows the increased investors in the market among different asset classes during the January through April, the months when the pandemic began and really hit the economy the hardest (Ortmann et al, 2020).

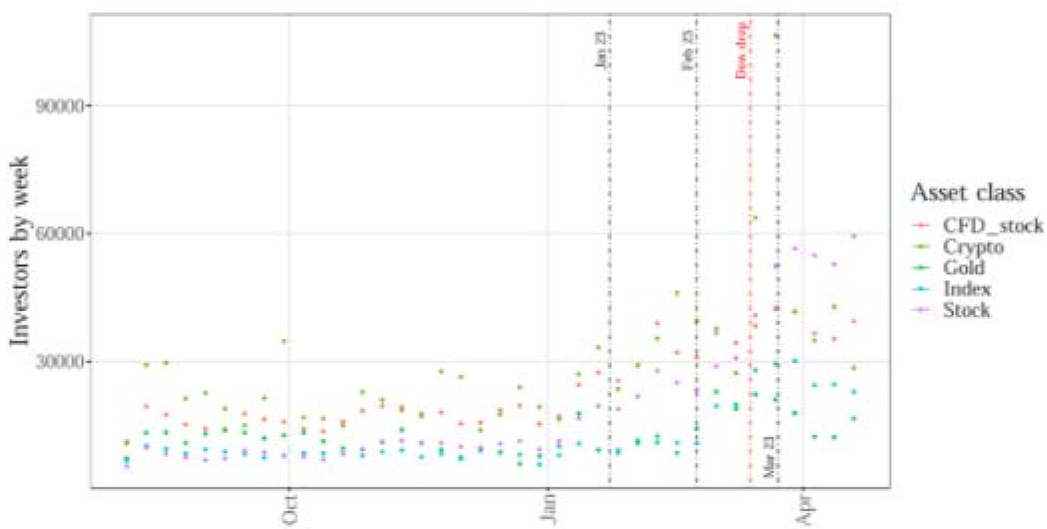

Figure 2, *Number of Active Investors in the Market Over Time.* By Ortmann et al, 2020.

With this, the market experienced an increased trading intensity of 13.9% between January 23, 2020, and April 17, 2020, as COVID-19 cases skyrocketed. Interestingly, investors did not move towards safer asset classes, such as gold, or more risky asset classes, such as cryptocurrency. Retail investors tended to stay in the middle of the risk scale, which was not what the researchers had predicted. Their original hypothesis stated that investor activity in relation to COVID-19 would follow similar reactions to those of terrorist attacks and other natural disaster shocks that increase uncertainty in the market. These types of shocks tend to show reduced flow to risky asset classes and heavy retail investor selling. With this data and further understanding of the pandemic, it was concluded that investors taking part in long stock or index positions may be under the impression that fast economic recovery is on the horizon post-pandemic, while those in short stock or index positions may feel that narrative to be overly optimistic (Ortmann et al, 2020). With there being such a wide range of opinions regarding the pandemic and the future of our economy, it is no surprise to see investors on either side of the argument.

With this divided feeling among investors, there also seems to be a hesitant feeling throughout the U.S. in regards to the market. Al Root, among other analysts in the field, cannot seem to pinpoint what is going on, but calls it “something that is spooking investors”. In August, around 70% of the S&P 500 companies were beating earnings estimates by more than 3%, while others were experiencing hiccups in the same quarter. About half of the big tech companies reported a drop in their numbers, while the other half reported gains. What is to blame for these discrepancies? Root cites the uncertainty to investors being unsure whether companies will recover as fast as they had once hoped (Root, 2020). Investors may experience many biases in relation to this, including the home bias if they feel investing in stocks they’re comfortable with will keep their money safe, or overtrading if they begin to overthink their buys and sells.

How to Protect Your Portfolio

While the theories within the behavioral finance field may provide a general idea of why investors are behaving the way they are in the midst of COVID-19, we should look at the other side of the equation. What can investors do to protect themselves from succumbing to these biases in a time of great market volatility? Many analysts agree that the biggest piece of advice to give right now is diversification. Bringing in investments from different companies, sectors, and asset classes can reduce the fragility of your portfolio because different assets are driven by different factors. Prices may move out of sync with each other so that you could experience loss in one area with gains in another. Diversification can also provide a smoother path of growth for your investment portfolio (Waring & Mamou, 2020).

With technology and social media being so heavily intertwined into our everyday lives, it is hard to not get caught up in headlines and news articles that seem to be everywhere. News companies have found new and innovative ways to get headlines in front of our eyes and catch our attention. Experts say that another way to protect yourself and your portfolio is to reduce the noise around you. The news you see can promote a false sense of urgency that could play into your anxiety and result in action bias, even though your portfolio may be doing well. Watching investments too closely can make them seem riskier, which may lead to a quick sell even though losses are typically short term anyways. Being able to look past the noise of the market can help you to become a better investor. If you do not feel completely comfortable with handling your portfolio with all of the noise around you, consider working with a financial advisor that can help filter information and utilize automation with your trading (Waring & Mamou, 2020). Financial advisors are professionals in their field that are very experienced in assisting clients to reach their financial goals.

Perhaps the most fundamental important piece of advice when it comes to investing is understanding yourself and your own risk tolerances. Knowing your own goals for the money in your portfolio can make it that much easier to know when presented opportunities are worth it to you or not. For example, if you’re looking for a portfolio with high liquidity to help provide cash flow for short term expenses, a 2-5 year plan with short term assets may be best for you. It is essential to take into account longevity as a factor in your investing. If you have long term needs like retirement or plan to build a family and want to plan for needs beyond your own, you should make a plan for that and what assets can best provide that for you (Waring & Mamou, 2020).

Conclusion

To conclude, understanding the psychological base of investor behavior and how it relates to market volatility and disruptions can be beneficial to investors trying to avoid the many biases that can occur in asset management. The COVID-19 Pandemic is a prime period for psychologists and researchers to further study and understand the influencing factors of investor behavior, as well as for investors to take a step back and look at what they really wish to achieve through their portfolio. Many of the biases and concepts within behavioral finance can be seen during this pandemic, such as overtrading and overconfidence. Being able to understand these possible biases present in your asset management can put you further ahead than your peers with the knowledge you hold, and possibly even bring you greater returns. Having a comprehensive view of all things that can affect the market, from the news to your own biases, is the best way to better your investing practices.

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