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Sell In May Effect

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ABSTRACT

Calendar Anomalies are directly related to the stock market, as, at different times throughout the year the returns of the stock market either increase by a lot or they crash. They are the reasons which affect the investors' behavior to change from time to time. They tend to occur at turning points in time such as during the different weathers, the start of a year, a month, or a week. The January effect, Day of the Week effect, Sell in May effect are some of the most famous calendar anomalies.

This paper has been divided into multiple sections which will help us understand the "Sell in May" or the "Halloween Effect" in a little more detail. In Section II, we will be discussing the calendar anomaly in itself; in Section III we discuss the consistency of this effect over the time; in Section IV we talk about how this phenomenon is a bug puzzle and how it is different from the others; in section V we talk about the possible causes or explanations to this effect; and at last in section VI we discuss about behavioral finance and the psychology behind this effect as well as the other calendar anomalies

Keywords: Sell in May Effect, Halloween Effect,stock market, psychology, investors, consistency.

1. INTRODUCTION

'Sell in May' , which has been popularly known in the stock market and in finance for many decades, is a calendar anomaly in which the investors sell all their assets, such as their stocks that they have bought throughout the year which results in the downfall of the stock market. The Sale In May effect can be considered to be of great interest for investors as related trading strategies are simple and easier to implement with a low number of transactions.

Bouman and Jacobsen were the first ones to identify this effect when they were investigating the saying 'Sell in may and go away.' In their research they found that this effect was present in 36 out of 37 countries in their sample and that this effect was very strong as well as highly significant in European countries. Their research also proposed that the Halloween Effect was found to be in existence as far back as 1694 in some European countries.

This effect is seen not only in the USA stock market but markets all around the world. Older studies suggested that Sell in May effect was related to January effect, because people tend to invest in stocks at the start of the year and in the middle of the year they sell them, but recent studies have shown that the Sell in May effect is neither related to the January Effect or any other calendar anomaly.

'Sell in May and go Away but come again in September' is a saying which is related to this calendar anomaly and is said to focus on the underperformance of the stock market from the start of May to the

end of October. The saying literally tells the investors to sell all their assets and go away on break till October and re-invest in November. The stocks deliver no profits during this time as compared to the time period of November-April as the investors tend to invest more during that time. The origins of this phenomenon are often attributed to the historical seasonal patterns in market activity, where trading volumes and market participation have traditionally been lower during the summer months due to reasons we will discuss in Section V.

2. CONSISTENCY OF THISEFFECT OVER TIME

The Sell in May effect has been quite consistent since the first time it was discovered which was according to the data many years ago. It is one of the effects which is an exception to the Murphy Law and that is the reason it has been so consistent and hasn't removed itself from the stock market. The fact that this anomaly still existed after the Financial Crisis in 2008 speaks that it will not disappear from the market in the near future.

The Financial Crisis in 2008 is described as “once in a lifetime event” and affected and is still affecting the global economy. This crisis was deep and protracted enough to be known as "the Great Recession" and was followed by what was, by some measures, a long but unusually slow recovery. It affected the gross domestic product of both developed as well as emerging stock markets and continues to do so. The months of September and October in 2008 were seen as the worst financial months all over the world.

The Halloween Effect continued to be present in the market during and after this financial crisis. In the paper written by Robert Lloyd, Chengping Zhang, and Stevin Rydin , in which they researched on the fact if the The Halloween Indicator is More of a Treat than a Trick, they found the Halloween Effect to be present in the 34 countries out of the 35 they had examined from May 2007 to October 2015.

This shows that the Halloween Effect has been consistent way more than any effect present in the stock market and it is so strong that it even survived the Financial Crisis of 2008. The Halloween effect has not been arbitraged away over the years since its first discovery and is likely to persist in the near future.

3. A PUZZLE

The Halloween effect or the sell in may effect is said to be an interesting puzzle. We will discuss a few of the reasons given by Bouman and Jacobsen on why this effect is such a big puzzle.

First being, the Halloween effect, unlike many other effects, did not seem to disappear or remove itself from the market once it was discovered.Generally, when the investors learn about the calendar anomaly the calendar anomaly removes itself from the market but Halloween Effect did not seem to do that. This phenomenon or law is known as Murphy's law which is documented by Elroy Dimson and Paul Marsh. According to this law, once an effect is discovered or investors are made aware of it, it seems to remove itself from the market and disappear. But the Halloween effect is one of the exceptions to this law asof now.

Second reason that this effect is an interesting puzzle, is that it not only affects the developed countries or their stock markets it also affects the emerging markets unlike other calendar anomalies which only affect the already developed stock markets. In the Bouman and Jacobsen paper they took 38 countries as their sample for research out of which 37 of them showed the Sell in May Effect, the countries they had taken had stock markets which were both developed as well as developing.

One of the other reasons is that, if a simple trading strategy was made in regard to the saying “Sell in May and Go Away” the investors would receive more profits and it will be much less riskier for them to invest. Even if the investors invested twice during the year by following this trading strategy they would receive so many profits that it would cover their transactional costs as well. If this strategy was followed by the investors it would outperform the ‘buyand hold’ strategy that many of them follow.

Buy and Hold strategy is a very famous and well known strategy in the stock market. In this strategy the investors invest in the stock and then they hold them or even hoard the stocks, they don't sell them for a long period of time even if the stock market is fluctuating or crashing. This strategy is followed by a lot of investors and it gives them very good results hence providing a lot of profits to the investors.

POSSIBLE CAUSES

Now that we have a basic knowledge of what the 'Halloween Effect' is and how different it is from the other effects we will look into the causes and how it affects the stock market.

There is as such no evidence of why this phenomenon happens but nonetheless there are some theories which explain why this calendar anomaly happens.

One of the possible causes may be that the time period of November-April is one filled with higher risk profiles which further leads to high returns so the investors tend to invest more at that time , but the experiment conducted by Bouman and Jacobsen shows that the risk is higher in May-October than in November-April which doesn't provide us with a proper reason either on why this calendar anomaly happens and why investors tend to invest more during the time period of November-April rather than investing in the months of May-October to receive more profits.

One of the other explanations for the Halloween effect is that during the summer months, investors take more vacation and this affects their trading strategy as they are not able to invest that much during that time period. Using the paid annual leave allowances of each country and estimated the outbound travel for each country by month, Bouman and Jacobsen found that vacation schedules could help explain the Halloween effect, but they offered only a theoretical explanation as the quantitative evidence could not conclusively prove the connection. Thus, this also doesn't provide us with a proper reason as to why this effect takes place.

One of the other causes can be that May-October are the end of the year months and thus the investors and the companies tend to focus more on the upcoming year than the ongoing year and figuring out where they(the firm) need to improve and where they (investors) need to invest next year and clearing out their balances and selling all their assets.This results in the fall of stock market in the May- October period thus also known as the 'sell in may' effect. Also many people invest in different stocks at the start of the year as a new year's resolution or for many other different reasons ,which commonly results in the January Effect, but they start to sell out their assets when half the year has passed, either because they have understood the market better or because they think it was a mistake to invest.

Another cause for this effect can be related to the accounting calendar. In countries like India,Canada, the United Kingdom, New Zealand, Hong Kong, and Japan, the accounting calendar begins from the 1st April and ends on the 31st March. At the end of the accounting period the balance sheet of each company or firm is made public which shows the financial statements of the company. From these statements the investors decide whether the company is worth being invested in or to sell the shares of the company. Many investors generally tend to sell their shares in the hopes that some other company will provide them with better returns. This also results in the downfall of the share market during the month of May.

Another explanation for the Halloween calendar anomaly is related to the belief and behavior of the investors. This effect has already been discovered and the investors are already aware of this phenomenon. Now, if the investors believe that the stock market will go down in the months of May- October they will liquidate their portfolios before the month of May begins and come back to the market after Halloween. This creates a positive feedback between the investors' belief and behavior which causes the stock market to underperform during the summer months and recover itself during the winter months, which makes the Halloween Effect a self- fulfilling prophecy.

4. CALENDAR ANOMALIES ANDTHE PSYCHOLOGY BEHIND IT

According to the Efficient Market Hypothesis the most important investors are rationals who process information and take actions accordingly. But, behavioral finance is quite the opposite. It studies how people fall short of this ideal in their decisions and how markets further then become inefficient.

There has been a steep rise in behavioral finance in the past few decades and it has been felt throughout economics as well as finance. The consequences of rational as well as irrational aspects of human judgment related to the market is behavioral finance. Psychology is the study of mind and behavior and here we will be discussing how psychology is affecting the stock market.

Psychology plays a significant role in the stock market. Investor behavior, emotions and decision making process can influence both the stock price as well as the market moments. Concepts like fear, greed and herd mentality can lead to market fluctuations.

Herd mentality refers to the tendency of individuals to follow old briefs, actions, or decisions of a large group without even self evaluating the information. In the stock market, herd mentality can lead to situations where investors can buy or sell assets because others are also doing. It can be because of the assumption that the other has better information or insights about that topic. Yet it is important for investors to be aware of her behavior and make decisions based on self evaluation and not on the basis that everyone is doing so. Understanding the psychological aspects of trading can help the investors make more informed decisions.

Calendar anomalies and psychology are related through the influence of human behavior and decision making based on the market patterns observed at different times of the year. These patterns can easily be influenced by different psychological biases such as the investor sentiment, behavioral bias, and the collective actions of market participants.

If we talk about investor sentiment the psychological factors such as fear and greed can impact the decision making during certain times of the year. If we take the Sell in May effect, investors know that the stock market goes down during that time, so they sell all their assets or they don't buy any new assets becauseof fear.

Another sentiment we have is the seasonal sentiment which states that different times of the year evoke specific emotions and attitudes in investors such as during holiday seasons or summer months the sentiment might be more optimistic or cautious which influences the trading strategy and further the market behavior.

If the investors understand these psychological factors which underline the anomalies it can help them make more informed decisions and avoid overly relying on the historical patterns without any proper analysis (herd mentality)

The sell in May effect has its own psychological reasoning behind it and it is influenced by behavioral biases and investor sentiment. Investors may be more risk averse during uncertain times, like the summer months when trading volumes tend to be lower and market conditions may be less predictable. This sentiment can lead to self- fulfilling prophecies, as more investors decide to sell in May, causing downward pressure on stock prices.

During the summer months investors may become more cautious and risk averse due to factors like geopolitical uncertainties, or historical market crashes that happened during this period. The investors can also be influenced by past market performances during specific months leading to an anchoring bias . Such as if they experienced positive results during November and December in the previous year they might expect the same outcomes in the current year.

Also, the sell in may strategy might be driven by the tendency of some investors to engage in seasonal patterns or follow historical market trends also known as herd behavior as we discussed above.

So we can say that psychology plays a very important part in the stock market and it can also help us in forming different trading strategies.

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