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EFFICIENT MARKET HYPOTHESIS, ABNORMAL RETURN AND ELECTION PERIODS

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Abstract

According to the efficient market hypothesis, it is impossible for the investors to achieve abnormally high returns. Because the price of an asset includes all available information which may affect the price of the product. Although until 1970's the efficient market hypothesis were deemed valid, it has been insufficient to explain specific price anomalies experienced within the recent years. One of these particular anomalies is experienced during the election periods. Within the scope of this study, two conclusions were achieved. The first one is that a price anomaly is experienced during the election period and the informed investors are aware of that. Secondly, it goes without saying that it is not possible to explain the financial market volatilities solely by employing the efficient market hypothesis.

Keywords: Efficient Market Hypothesis, Abnormal Return and Election Periods

INTRODUCTION

The investors may want to acquire abnormal returns. In this sense, the following questions should be answered: (1) Are the investors able to predict the future prices by analyzing the price movements experienced in the past? (2) Are the investors able to make any prediction regarding the stock prices of the companies by analyzing the companies' financial statements and disclosed information? (3) How much profitable is it to perform insider trading? (4) Can an investor outperform the overall market?

These questions have been studied within the scope of the efficient market hypothesis.

Efficient market hypothesis or with another wording the theory of efficient markets is defined by employing the rational expectations theory so as to analyze the financial markets (Mishkin, 2011). Efficient market hypothesis is based on the theory that the security prices in the financial markets reflect all available information. In this sense, the efficient market prices always remain "correct" and the real cash flow and the real risk can only affect the market price. The first findings about the efficient market hypothesis supports this hypothesis. Yet, the findings achieved within the recent years show that this hypothesis may not be fully valid in all cases.

The first findings supporting the efficient market hypothesis were the results of the studies regarding the performance of the Investment Analysts and Mutual Funds. In this sense, (Jesen, 1968) is considered a pioneer study. Within the scope of this study two important issues were discussed. The first one is the success of the portfolio managers in identifying the future security prices. The second one is if the portfolio managers succeed in minimizing the possible risks by ensuring an efficient diversification among the securities. According to the writer, the investment funds' performance was higher than the market on average (average price). Although the investments funds' performance was high in the first term, they failed to outperform the market within the second term. Additionally, a good performance of an investment counselor and the investment fund does not necessarily mean that this performance level will be maintained in the future. While some counselors are lucky, some will not be. This is to say that if you are able to outperform the market, this is solely because you are in luck.

The second finding which supports the market efficiency is if the stock prices reflect all disclosed information or not. According to the efficient market hypothesis stock prices reflect all available information for the public. This means that a positive announcement about a company would not increase the average price. Because this information is already reflected to the stock price (Mishkin, 2011) For example, the stock price of a company increases a short while after the company announces the stock splits and stock dividends. This is because the investors generally interpret the stock splits and stock dividends as signal of a higher return. In the case that the company does not announce an increase in the returns or the stock dividends in the following month, the stock price is likely to drop down to the previous

levels. The announcements of stock dividends or stock splits do not lead to an increase in the average stock prices (Fama, et. al. 1969). Stock splits create more stocks thus resulting in decrease in the stock prices. In this case, the liquidity of the companies' stocks increase, leaving a positive impact on the marketing value of the company.

The third finding supporting the market efficiency is that the stock prices follow a "random walk". The random walk theory is used to explain the movements that cannot be predicted. According to the efficient market hypothesis, the stock prices follow a random walk. With another wording, the changes in the stock prices are unpredictable.

The fourth finding supporting the market efficiency is about technical analysis. The technical analysis is the study of analyzing the past stock prices in an attempt to predict the direction of the future price movements. Technical analysis can help investors while buying and selling stocks. However, in the case that the stock prices are in a random walk, it would not be possible to forecast the future price movements by employing the technical analysis theory. Therefore it is possible to say that performing a technical analysis would only be a waste of time for the stock prices going through a random walk.

On the other hand, the studies against the idea of market efficiency starts with (Fama, 1970). According to the writer, while there are a variety of findings supporting the efficient market hypothesis, it is rarely possible to reach the findings against this hypothesis. The writer divides the markets into three variants according to their levels. According to the lowest form of the hypothesis, the weak form efficiency, the investor cannot acquire abnormally high returns by making an analysis of the past price movements. The second level of the hypothesis, semi-strong form efficiency suggests that the investors cannot acquire abnormally high returns neither by making an analysis of the past prices nor employing the public information. The highest form of the hypothesis, strong-form efficiency implies that not even insider information could give an investor the advantage to acquire higher returns than the average. In the case that there are temporary fluctuations in the market, the arbitrage mechanism takes away the profit opportunities. Therefore, the price of an asset is likely to drop down to its real value.

The first finding against the efficient market hypothesis is the Small - Firm Effect. Many empirical studies have shown that even when considered the higher risks, the small firms are able to acquire higher returns than the

average for long periods of time (Reinganum, 1983) (Ritter, 1988) (Roll, 1988). Although the small firm effect has diminished within the recent years, it seems to maintain its validity. It is been discussed that the liquidity of the small firm stocks are not sufficient, it is costly to reach the information of the small firms, the risks regarding the small firms are mis-calculated, there are tax related matters with the small - firms and that the institutional investors invest in such types of firms.

The second finding against the efficient market hypothesis is the "January Effect". For a very long period of time, it has been seen that the stock prices increase in the period from December to January more than in any other month. Due to the fact that it is possible to predict this movement, it conflicts with the random walk theory. Studies show that the systematic and non-systematic risks of the small firms are higher in January. Therefore, it is predicted that the small firm stocks outperform the market in this month. Although the January effect has diminished for the larger firms within the recent years, it is possible to say that it still affects the small firms (Keim, 1986) One of the most common theories explaining the January effect is that it is the result of the tax related movements and the actions taken to demonstrate a better portfolio performance.

The third finding against the efficient market hypothesis is the Market Overreaction. The researches show that the stock prices over react to new information and the pricing mistakes are corrected slowly (Bondt and Thaler, 1987). The writers discuss that the stock bringing the lowest (highest) return are likely to out (under)perform the market in the next term. In the case that there is uncertainty in the market the investors may over react to positive or negative news regarding the market. Therefore, upon the release of a news the price of an asset may dramatically increase. Within the following process, the price is likely to drop down to the average levels.

The fourth finding against the efficient market hypothesis is the Excessive Volatility. This theory is in a close relation with the market overreaction. It is possible that the investors may over react or under react to new information. When compared, the sensitivity of an investor who lost money on the stock exchange in the previous term is likely to be higher than the one who earned. However, this issue is debatable and have not been totally clarified yet. Excessive Volatility implies that the fluctuations in the stock prices are abnormally higher than the fluctuations foreseen for the real value of the related securities.

The fifth finding against the efficient market hypothesis is the Mean Reversion. Some researchers proved that the stock return averages reversed. This means if today's stock return is low it is likely that it will ensure high returns in the following process and if today's stock return is high it is expected that it will decrease in future. With other wording, the stocks underperformed in the past are very likely to bring high returns in the future. (Porteba and Summers, 1988) (Fama and French, 1988) (Kim, et. al. 1991) (Engel and Morris, 1991).

However, the efficient market hypothesis discusses that the stock prices include the future dividends as well. According to the hypothesis the stock prices are sensitive to the new information which may affect the future dividends. In real life, stock markets do not effectively function and a great deal of public information is irrelevant to the future dividends. Some investors are motivated to buy the stocks which ensured high returns in the past. While the stock prices tend to move towards the real value, such actions lead to wrong pricing within the short term. This trend is named the mean reversion. Mean reversion shows that the stock prices do not follow a random walk.

The sixth finding against the efficient market hypothesis is that a new information is not always directly reflected to the stock prices. In contradiction with the efficient market hypothesis, there are proves that the stock prices are not automatically adjusted with the earning announcements (Ball and Brown, 1968) (Fama, 1998). Within the scope of the previous studies it is seen that the stock prices are sensitive to new information and even though for a couple of days, a new information affects the stock prices and loses its impact in the next couple of days, thus leading the stock price to move towards the normal prices. This hypothesis is an indication of the fact that the prices return to normal without a delay in the market. However, the following studies have shown that the stock prices do not show the same sensitivity for every information. Additionally, the stock prices may reflect different levels of anomalies within the short and the long term.

Literature Review

According to the efficient market hypothesis, the stock prices follow a random walk. It is impossible to predict the future price movements by making an analysis of the past future movements. The efficient market hypothesis discusses that the price of an asset includes all available

information which may affect the price of his asset. This is a perfectly designed hypothesis. But this hypothesis is questionable. For example, does each investor have the same perception about a new information? Is it costly to access information? Are there any transaction costs? Are the preferences of the investment counselors the perfect choices?

Although there is a limited number of studies against the efficient market hypothesis, this number is increasing and there are studies which weakens the efficient market hypothesis or even discusses that this hypothesis can be disproved. It is asserted that the price movements may be random in the short term (daily, weekly, monthly) but it is defensed that the long term price movements would not follow a random walk.

One of the situations which seems to disprove the efficient market hypothesis is the price movements experienced during the election period. Acquiring the expected market results decreases the stock market volatilities while on the other hand an increase in the political risk which is seen as a systematic risk element lead to an increase in the market volatility. With another wording the possibility of anomaly, which is acquiring abnormally high returns, increases. The informed investors who are aware of this possibility adopts necessary strategy to benefit from this situation.

As a conclusion it is seen that the elections do not only affects the stock prices but all financial markets. The continuity of the possible changes experienced in the monetary and financial policies in the aftermath of the elections affects both the macroeconomic balances and the stock prices. This affect may show itself on the stock prices in two forms. The first one is that a buoyant market is essential for the stock holders to earn. Otherwise, the stock holders loses. Secondly, decreasing the tax rates means more expenditure from the perspective of the consumer. But from the perspective of the firms, lower tax rates mean more cost effective resources.

The results of the studies analyzing the relation between the election periods and the stock prices are summarized within the following table:

Table 1- Election Periods

Country	Researchers	Period	Effect
Australia	Worthington, A. C.	1901-2005	+
Belgian	Vuchelen, J.	1974-2000	+
Canada, Mexico	Nippani, S., Arize, C. A.	2000	+
Canada	Frank, M., et.	1993a	+
Canada	Frank, M., et.	1993b	+
Germany	Fuss, R., Bechtel, M.M.	2002	+
Greece	Siokis, F., Kapopoulas, P.	1989-2004	+

Japan	Lin, T.C., Wang, Y.H.	1979-2005	-
Taiwan	Hung, J.C., Jianga, S.J., Chiu, C.L.	1995-2004	+
Taiwan	Wang, Y.H., Lin, C.T.	1991-2005	Mix
Turkey	Uzun, M	1990-2013	+
Turkey	Altın, H.	1990-2011	+
Mix	Mosley,L., David A.,	1985-2004	+
USA, UK	Leblang D., Bumba M.,	1930-2000	+
USA, UK	C. Ioannidis, C., Thompson, RS.,	1960-1979	+
USA, UK	Mukherje, B., Leblang, D.	1896-2001	+
USA	Roger D. H.,	1832-1979	+
USA	Allvine, C.F., O'Neill E.D.	1961-1971	+
USA	Santa-Clara, P., Rossen V.,	1927-1998	+
USA	Andrea, M.,	2000	+
USA	Allvine, F. C., Daniel E. O'Neill	1960-1980	+
USA	Clara-Santa, P., Valkanov, R.	1927-1998	+
USA	Niederhoffer, V., Gibbs, S., Bullock, J.	1900-1968	+
USA	Nippani, S., Medlin, B.W.	2000	+
USA	Li, J., Born, A. J.	1962-2001	+
USA	Mattozzi, A.,	2000	+
USA	Bohl, T.M., Dopke, J., Pierdzioch, C.	1950-2003	+
USA	Halcoussis, D., Lowenberg, D.A., Phillips, G.M.	2008	+
USA	Jones, T.S., Banning, K.,	1896-2000	+
USA	Sturn, R. R.,	1940-2006	+

Source: (the study of Altın, 2012 has been reviewed)

The purpose of the Study and its Scope

The literature results show that there are strong evidences which support the efficient market hypothesis while on the other hand it is possible to see anomalies and peculiarities against the efficient market hypothesis. One of these anomalies is the election periods. Within the framework of a general approach it is seen that the stock prices increase before the elections and tend to decrease in the aftermath of the election period.

The purpose of this study is to discuss the relation between the outputs of (Altın, 2012) and (Uzun, 2014) studies regarding the stock price anomalies in the election period and the validity of efficient market hypothesis.

Within the scope of the first study 12 countries' securities exchanges have been analyzed for 6 election periods in terms of the monthly data. The writer identified that price anomalies were experienced during 45 election periods of 65. Within the scope of the second study 12 countries' securities exchanges were analyzed for 65 election periods for 1 day, 7 days, 10 days

and 360 days of intervals[35]. The writer identified that price anomalies were experienced during 194 term periods of 345. On the other hand, considering the strategical meaningfulness of the price anomalies both studies achieved complex results.

Results

One of the evidences against the efficient market hypothesis is the price anomalies experienced during the election periods. The election periods affects the stock prices as well as the whole economy. The stock prices are affected by the government policies and the investment policies of the governments. Stock investments are liquidized in a very short period of time. Stock investors generally have a short term investment horizon. The government policies affect the actions of the investors. However, the investors make better decisions regarding the future when they are free of all risks as well as the political risk. In this case the fluctuations in the stock prices would decrease. On the other hand, during the high risk periods, the investors tend to pull their funds from the market quickly, thus leading to increase in the fluctuations of the securities prices.

Although the impacts of the election periods are addressed within the literature, there are a limited number of studies which defense that this is against the efficient market hypothesis. Anomaly is experienced during the election periods. If the efficient market hypothesis were valid, this form of anomaly would not be experienced. The impact and magnitude of this anomaly varies according to the market. While in the aftermath of the elections which meets the expectations a lower level of price anomaly is experienced, a greater anomaly is experienced during the uncertain election periods.

Within the scope of a whole encompassing perspective two results are achieved. Firstly, during the election periods a price anomaly is experienced. The informed investors are aware of that. Secondly, it goes without saying that it is not possible to explain the financial market volatilities solely by employing the efficient market hypothesis.

[35] It would be beneficial to observe the original studies for research methods and practices.

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