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INVESTORS' OVERREACTION TO POLITICAL NEWS: THE CASE OF TURKEY

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ABSTRACT

Purpose – Information underlies the stock price movements. There are lots of economic and political news that have an impact on the stock price. Unlike other studies (extensively considering economic news), this paper aims to detect abnormal returns resulting from important political news from 2010 to 2022 in Turkey.
Methodology – To determine the abnormal returns-overreactions, this paper utilized the market-based event study approach and the results were corroborated by non-parametric test statistics.
Findings – Crucial important news occurring between 2010-2022, led to statistically significant negative abnormal reactions the day before the event days. These results show that the banking sector dissociates negatively from reference market reaction.
Conclusion – It is deduced that some investors got information about political events before the events day, and so they priced the information. This result implies that Semi- Strong Efficient Market Hypothesis is not valid.

Keywords: Political events, event study, efficient market hypothesis, non-parametric test
JEL Codes: G14,G21

1. INTRODUCTION

Information is vital for finance literature due to Efficient Market Hypothesis. The Efficient Market refers to the common acceptance of the current price and the probability distribution of future prices in the market (Fama, 1970). Rational Expectations Theory is the basis of the Efficient Market Hypothesis and remarks that knowledge is a scarce resource that will not be wasted (Muth,1961). In efficient markets, the market reacts immediately to new information and in such a market, extreme trends are not observed (Ross et al, 2013). However, unexpected and dramatic events often cause people to overreact contradicting Bayes' rule (De Bondt and Thaler, 1985). We can anticipate large positive returns (coming from good news) to be followed by periods of below-normal returns and large negative returns (resulting from unfavorable events) to be followed by periods of above-normal returns when overreaction is linked to these dramatic occurrences (Howe, 1986).

Most studies in the field of finance have extensively focused on the impacts of macroeconomic news on the stock market (Maadid et al. 2020) but little is known about political news. Between 2010 and 2020, Turkey experienced many important political events. The crucial ones are: (1) The Gezi parkı protest, (2) The launching of an official investigation into claims of some ministers' corruption, (3) The Russian warplane shot down, and (4) The Military coup attempt. Therefore this paper attempts to show the political events on banking sector indices. The reason for choosing the banking sector is the thought that they will be more sensitive to new news coming to the market due to the position in fund supply and demand. The methodological approach taken in this study is an event study based on the market model.

2. LITERATURE REVIEW

This chapter has described the literature related to the impact of political news on the stock market.

Önder and Şımga-Muğan (2006) aimed to detect the importance of political news as a driver of stock markets in Turkey and Argentina. They indicated that political events had a significant impact on both stock markets' volatility and trading volume.

Ramesh and Rajumesh (2015) applied event study methodology to detect the effect of political events on the Colombo Stock Exchange and remarked that political events had a significant negative impact on the stock market.

Al-Thaqeb (2018) analyzed the impact of political, economic, environmental, and national security events on stock market indices. This paper utilized the event study approach and indicated that international stock markets underreact (overreact) the positive (negative) events in the U.S.

Karime and Sayılır (2019) aimed to determine the impact of political events on Borsa İstanbul and they applied the GARCH model considering dummy values. They showed that there was a significant influence of political events on stock market indices. Kirana and Sembel (2019) investigated the impact of presidential elections on Indian stock markets using the event study method, and found no significant abnormal returns related political events.

Al-Maadid (2020) analyzed the impact of political events on Gulf Cooperation Council countries utilizing Markov Switching model. The research showed the importance of political news as a driver of the stock market.

3. THE DATA AND METHODOLOGY

This section of the paper gives a brief summary of the data set and methodology. This study used the banking sector's stock prices, BIST 100 prices, and four important political events. The contractions are as follows: ALBRK (ALBARAKA TÜRK), VKFBNK (VAKIFBANK), HLKBNK (HALKBANK), ISBNK (İŞ BANKASI), YPKRD (YAPI KREDI), SKRBNK (ŞEKERBANK), TSKB (Türkiye Sanayi ve Kalkınma Bankası), AKBNK (AKBANK), GRNT(GARANTI BBVA), and ICBC (Industrial and Commercial Bank Of China), BST100 (BİST 100). To find abnormal returns, the event dates are necessary: 28.05.2013- Gezi Park Protest, 16.12.2013- The launching of an official investigation into corruption claims, 24.11.2015- The Russian warplane shot down,15.07.2016- Military coup attempt.

Event study methodology based on the market model's formulations are as follows:

$$R_{i,t} = \alpha_i + \beta_i R_{M,t} + \varepsilon_{i,t} \quad (1)$$

$$AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i R_{M,t}) \quad (2)$$

In Equation (1) , $R_{i,t}$, α_i, $R_{M,t}$, β_i, and $\varepsilon_{i,t}$ represent the return of the stock prices of the firm at time t, constant term, the return of reference market index at time t, sensitivity of firm stock prices to reference market index and the error term, respectively. $AR_{i,t}$ indicates the abnormal return in Equation 2.

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{i,t} \quad (3)$$

$$CAAR_{t1-t2} = \frac{1}{N}\sum_{i=1}^{N} AAR_t \quad (4)$$

In Equation 3 and 4, AAR_t shows the average abnormal returns and $CAAR_{t1-t2}$ demonstrates the cumulative average abnormal returns. The results obtained from the event study need to be supported by statistical tests for their effectiveness. There are two main types of statistical test: (1) Parametric Tests, and(2) Non-Parametric tests. This study used non-parametric tests, due to the non-normal distribution and power of tests. These are as follows: Corrado Rank Test, Generalized Rank Test, Generalized Rank Z Test, Sign Test, and Wilcoxon Test.

4. FINDINGS AND DISCUSSION

Table 1 indicates the Cumulative Average Abnormal Returns (CAAR) in different sequences. In Table 1 , the cumulative average abnormal returns (CAAR) are calculated in three different windows: (-5.+5), (-3.+3) and (-2.+2). Considering the reaction of investors to a total of 40 events, it is seen that half of them reacted positively and half of them negatively. In addition, although CAAR values are negative, no statistically significant relationship is observed. The results confirm that investors do not react strongly to political developments. Table 2 shows the Average Abnormal Returns (AAR) in -5, +5 period.

Table 1: CAAR Values and Non-Parametric Statistical Test Results

	Event Window		CAAR VALUE	Pos: Neg	Gen. Sign Z Test Stat.	Gen. Sign Z P Value	Gen. Rank T Test Stat.	Gen. Rank T P Value	Gen. Rank Z Test Stat.	Gen. Rank Z P Value
CAAR	**(-5,5)**	**130**	-0,0055	20:20	0,2507	(0,8020)	0,2198	(0,8264)	0,2634	(0,7922)
CAAR	**(-3,3)**	**130**	-0,0029	20:20	0,2386	(0,8114)	-0,0983	(0,9218)	-0,1171	(0,9068)
CAAR	**(-2,2)**	**130**	-0,0039	20:20	-0,0828	(0,9340)	-0,5446	(0,5870)	-0,6481	(0,5169)

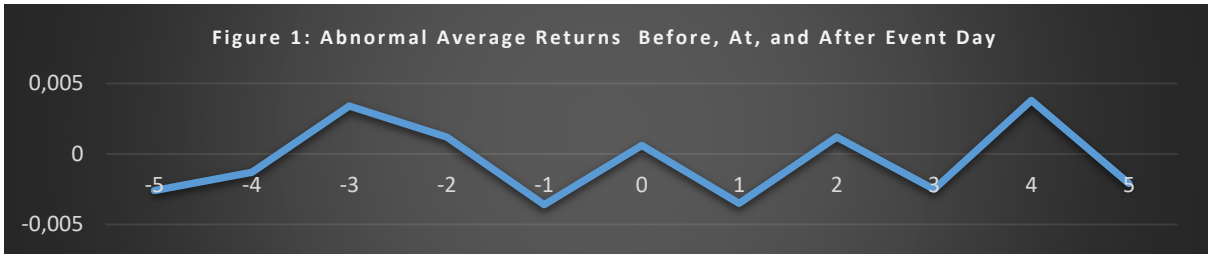
Note: "Pharantesis" indicates the probability value and "Gen" means Generalized. "Pos:Neg" remarks on positive and negative cumulative average abnormal returns, respectively.

Table 2 remarks the average abnormal returns (AAR) five days before and five days after the event days. Six of the AAR values calculated in a total of 11 windows are negative and five are positive. However, as can be seen in the table, a statistically significant relationship is observed on the day of the event and the day before the event. On event day this impact is positive and the day before is negative. It can be said that investors do not react strongly to the events in a total of 11 event windows.

Table 2: AAR Values and Non-Parametric Statistical Test Results

	-5	-4	-3	-2	-1*	0*	1	2	3	4	5
AAR	-0,0026	-0,0013	0,0034	0,0012	-0,0036	0,0006	-0,0035	0,0012	-0,0025	0,0038	-0,0021
Pos:Neg	19:21	21:19	23:17	22:18	15:25	25:15	16:24	18:22	16:24	25:15	16:24
Gen. Sign Z	-0,0657	0,5672	1,2002	0,8837	-1,3316	1,8331	-1,0152	-0,3822	-1,0152	1,8331	-1,0152
	(0,9476)	(0,5706)	(0,2301)	(0,3769)	(0,183)	**(0,0668)**	(0,31)	(0,7023)	(0,31)	(0,0668)	(0,31)
Gen. Rank T	-0,5369	0,068	0,8935	0,7288	-1,7194	0,763	-0,2127	0,0733	-0,6556	1,3197	-0,6661
	(0,5923)	(0,9459)	(0,3733)	(0,4674)	(**0,0879)**	(0,4469)	(0,8319)	(0,9417)	(0,5132)	(0,1893)	(0,5065)
Gen. Rank Z	-0,6439	0,0815	1,0704	0,8739	-2,0613	0,9157	-0,2551	0,0878	-0,7861	1,5826	-0,7986
	(0,5196)	(0,935)	(0,2844)	(0,3822)	**(0,0393)**	(0,3598)	(0,7987)	(0,93)	(0,4318)	(0,1135)	(0,4245)
Wilcoxon Z	350,5	370	505	458,5	258	450	380	416	320,5	483,5	336
	(0,4277)	(0,7855)	(0,204)	(0,5188)	**(0,0417)**	(0,5955)	(0,6917)	(0,9411)	(0,2316)	(0,1943)	(0,3269)

Note: Pharantesis indicates the probability value and "Gen" means Generalized. * represents the statistically significant average abnormal return date. "Pos:Neg" remarks on positive and negative cumulative abnormal returns, respectively.



Note: y and x axis indicate abnormal average returns and days related to the event, respectively. 0 shows the event day.

It is apparent from this table that there was a decreasing trend from three days before the event day to one day before the event day. This result leads us to short position in the banking sector, but it is not statistically meaningful when we calculated CAAR values from -3 to 0.

5. CONCLUSIONS

Information is the main driver of stock prices and the acquisition of this information can provide an additional return. However, this situation is contrary to the Efficient Market Hypothesis. Regarding this hypothesis, stock markets immediately react (no delay) to the new information. It is not possible to obtain extra yields by observing the past price of stock markets' behavior to forecast the future. Furthermore, making inquiries from the inside of the business is not helpful in getting abnormal returns.

This paper has argued whether political events are significant information resources for the stock market in Turkey or not. The results of the paper show that there is a significant negative abnormal return on the day before the event days, but the magnitude seems to be very low.

The findings of this study suggest that the Semi-Strong Efficient Market Hypothesis is not valid, because political events are priced before the event day and it leads us to doubt insider trading. The present study establishes a quantitative framework for detecting investors' reactions to political events. The main weakness of this study was the negligence of other sectors. More broadly, research is also needed to determine the impacts of political events considering different models.

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