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DOES THE HOLIDAY EFFECT DIFFER FROM RELIGIOUS TO NON-RELIGIOUS HOLIDAYS? EMPIRICAL EVIDENCE FROM EGYPT

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ABSTRACT

This study aims to investigate the presence of holiday effect on the Egyptian Exchange (EGX) over the period 2010 to 2015. It utilizes daily data of the EGX30 index prices and trading volumes and applies dummy variables OLS regression. Three types of holidays are examined those being, secular, Islamic, and Christian, and those, in turn, are disaggregated into their individual components. The findings reveal that there are differences in the behavior of stock prices between holidays. While the secular and Islamic holidays are mainly associated with positive pre-holiday returns, the Christian holidays are associated with positive post-holiday returns. Disaggregating these holidays into their individual components reveals that the Police Day holiday, Eid Al-Fitr holiday and Eastern Christmas holiday are the major holidays driving the secular, Islamic and Christian holidays' effect respectively. Interestingly, the results obtained when the trading volume is used do not support the presence of a holiday effect on trading volume. The findings could have important implications for developing profitable investment strategies in periods of holidays.

Keywords: Holiday effect, Secular holidays, Religious holidays, Islamic holidays, Christian holidays, Stock prices, Trading volume, Egyptian exchange (EGX).

JEL Classification: G02, G14.

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Contribution/ Originality

This study contributes to the literature in that it examines the holiday effect using disaggregated data of secular, Islamic, and Christian holidays with the aim of examining whether the holiday effect differs between religious and non-religious holidays and between Islamic and Christian ones.

1. INTRODUCTION

Calendar effects are widely used in the literature to examine the weak form efficient market hypothesis. If documented, they indicate that stock returns on a specific calendar period tend to be higher or lower than the average returns, which is considered as evidence against the efficient market hypothesis (Schwert, 2002).

One of the well-known calendar effects is the Day of the Week effect, first documented by Fields (1931) as he tested the Dow Jones Industrial Average (DJIA) over the period 1915-1930. Fields found that the closing prices of Saturday are higher than the closing prices of Monday and Friday which supports the presence of a day of the week

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effect. This effect, however, did not appear to be limited to the US equity markets as it was also documented in other international financial markets.[1]

In general, the Day of the Week effect refers to the situation where stock prices are lower on the first trading day of the week and higher on the last trading day of the week.

Another calendar effect that was also widely examined in the literature is the January effect (Month of the Year effect). This effect refers to the situation where the stock returns in a specific month of the year differ than the returns of the other months. It was first documented in the US stock market by Wachtel (1942). He tested the Dow Jones Industrial Average from 1927 to 1942, and indicated that the stock returns in January are higher than the rest of the months. Similar to the Day of the Week effect, this effect was also documented in other international markets.[2]

The holiday effect is another known calendar effect, firstly documented by Fields (1934). According to this effect, stock prices tend to be higher before the holiday and lower after the holiday. Several holiday effects were examined in different stock markets. Most of the holiday anomalies underlined by researchers were based on the Gregorian calendar which follows the solar cycle to determine their dates. Those anomalies include for example the New Year, the Christmas and the Thanksgiving.[3] Recently interest has increased on the calendar anomalies that are based on the Hijri calendar that is followed by the Muslim world and used to determine the religious holidays for Muslims.[4] This calendar is based on the lunar cycle which is eleven days shorter than the solar cycle. It depends on the moon sighting to determine the beginning of each lunar month and that what makes the Islamic Calendar a moving calendar.

Most of the literature focused on the holiday effect without a further examination of the differences between religious and non-religious holidays. Moreover, few researchers addressed the both types of religious holidays. i.e. Islamic holidays and Christian holidays as usually not many countries celebrate both types of religious holidays. In addition, most of the literature examined the holiday effect using stock prices only with little attention been paid to trading volume. Unlike the majority of the previous literature, this study aims to examine whether the holiday effect in Egypt differs between religious and non-religious holidays and differs amongst the religious holidays themselves. i.e. between Islamic and Christian religious holidays. In addition, it aims to investigate whether the holiday effect is only limited to stock prices or it affects both stock prices and trading volume.

The rest of this paper is organized as follows: the second section provides a research background, the third section reviews the literature on the holiday effect anomaly in Arab countries, the fourth section describes the data collection process and explains the methodology, the fifth section displays and discusses the findings, and the sixth section concludes the paper.

2. RESEARCH BACKGROUND

The first documented holiday effect revealed the presence of positive pre-holiday returns (Fields, 1931). Later studies however showed inconclusive evidences. For example Ariel (1990); Kim and Park (1994) and Pettengill

[1]For example, the effect was documented in: Australia by Jaffe and Westerfield (1985). Canada, Japan and U.K. by Solnik and Bousquet (1990). France by Baron1e (1990). Italy by Brooks and Persand (2001). India, Indonesia, Malaysia, Philippines, South Korea, Taiwan and Thailand, by Choudhry (2002).

[2]Ho (1990). documented the month of the year effect over twelve countries including Hong Kong, Malaysia, Singapore, Korea, Philippine, U.K, Australia, New Zealand, U.S, Thailand and Japan.

[3]See Lakonishok and Smid (1988). Ariel (1990). and Meneu and Pardo (2004).

[4]Amongst others: Hussain (1998). Mustafa (2008).

McGowan and Jakob (2010). AbdSukor (2012). Chowdhury and Mostari (2014).

(1989) revealed that the post-holiday returns are not significantly different from those of typical days. Other studies indicated that the pre and post-holiday returns are positive and they are higher than the returns of typical days (Easton, 1990). A study of Frieder and Subrahmanyam (2004)on the other hand, documented positive pre-holiday returns and negative ones after it.

Two explanations are given in the literature to explain the holiday effect, those being: the investor psychology and the need for liquidity.

According to the investor psychology explanation, the social mood has been identified as a significant factor of financial trends (Elliot and Echols, 1976). That is to say, when the public mood is positive, investors are more likely to have optimistic expectations about future stock performance and they tend to ignore the negative information, and this is known as the optimism bias (Nofsinger, 2005). This explanation is consistent with the observation of higher returns before the holiday and lower returns after it.

Another explanation of investor psychology is suggested by Amihud and Mendelson (1987) and Loewenstein *et al.* (2001).They postulated that a holiday is a time of uncertainty which means that the emotions experienced are not all positive. The uncertainty would spread to too many aspects of a person's life including his financial decisions. And therefore, investors try to limit their risk exposure while the market is closed. Accordingly, the authors expected lower returns before holidays.

Keynes (1936) proposed "the need for liquidity" as another explanation for the lower pre-holiday returns. According to the need for liquidity, investors tend to sell stocks, or reduce their investment activities, to raise cash in their hands in order to finance their holiday expenditures. That is why stock returns decline before holidays and increase after them as investors get back to their activities. This explanation is consistent with the observation of lower returns before holidays and higher returns after them.

Based on these explanations for the holiday effect, one is not able to gauge the accurate sign of the expected returns before and after the holiday. However, in all cases we expect the religious holidays to have higher impact on stock returns in comparison to the non-religious one. This is due to the fact that religious holidays are associated with special ritual ceremonies and thereby with a more positive mood amongst the public. In addition, religious holidays are associated with more economic activities in preparation for the celebration of the ceremony. This includes for example, more consumption of cloths, food and more outing to restaurants and coffee shops that is to say, there is more "need for liquidity" before the religious holidays in comparison to the non-religious.[5] However, if the uncertainty impact of the holiday, suggested by Amihud and Mendelson (1987) holds, then we expect both types of holidays, religious and non-religious to have the same impact on stock returns.

3. LITERATURE REVIEW

Al-Loughani *et al.* (2005) investigated all the official holidays in Kuwait without classifying the holidays into religious and non-religious ones. Using daily prices of the Global Investment House index over the period 1984-2000, the authors documented no significant holiday effect in the Kuwait stock exchange.

Al-Rjoub (2005) tested the pre-holiday effect in the Jordanian stock market by using all the individual holidays in Jordan without distinguishing between the types of these holidays. He used the daily prices of the Amman stock exchange index over the period 1978-2002. His findings were in favor of a significant pre-holiday effect for the New Year's Day, Eid Al-Adha, and the Election Day.

Alagidede (2008) examined seven African markets including Tunisia, Morocco and Egypt, to detect the presence of a pre-holiday effect for each country over the period 1990-2009. He used all the official holidays as a one

[5] This is especially true in the Middle East where the level of consumption in such ceremonies is very high.

category without classifying them into religious and non-religious. He reported that there is no pre-holiday effect in any of the three Arab markets examined.

Bley and Saad (2010) used the daily returns of the Gulf Cooperation Council (GCC) market indices and the listed companies, to examine the presence of some holidays[6] over the period 2000-2009. The authors reported a significant Eid AL-Fitr effect in all countries except Bahrain. The AL-Isra and AL-Miraj effect, Eid Al-Adha effect and Ashoura effect on the other hand were only reported in Bahrain, Kuwait, Qatar and UAE respectively. The authors, however did not compare the effect of religious holidays as a whole to those of non-religious ones.

Abu-Rub and Sharba (2011) used daily prices of the companies listed in the Palestine stock exchange from 2006 to 2010 to investigate the holiday effect. The authors examined all the formal holidays declared by the Palestinian Primary Council including religious, non-religious and weekend holidays.[7] They reported higher stock prices in the pre-holiday day compared to lower stock prices in the post-holiday day when the holidays examined are the religious and non- religious ones. In addition they reported that there is a statistical difference in the pre and post-holiday stock prices between religious, non-religious and weekend holidays in favor of the religious holidays.

Al-Nassar (2014) examined the holiday effect in the GCC markets over the period 2001-2011 using daily closing prices. He considered all the official public holidays that cause the market closure and distinguished between religious and secular holidays. The author documented the presence of holiday effect on the pre and post-holiday days in the majority of these markets and this particularly holds in Abu Dhabi and Bahrain markets. The results indicated that while the religious holidays were associated with higher pre-holiday returns the secular holidays were associated with higher post-holiday returns.

4. DATA AND METHODOLOGY

4.1. Data Collection

One widely acknowledged definition of holiday was introduced by Lakonishok and Smidt (1988). According to their definition, a holiday is a day on which the stock market is closed, exclusive of typical weekend days. Following their definition we focus on the official public holidays that cause market closure and ignore other cultural and religious occasions that occur while the market is open. This definition of holiday is different from what has been considered by some researchers (e.g. Frieder and Subrahmanyam (2004)).

There are a variety of holidays celebrated in Egypt. Table (1) illustrates a list of the holidays celebrated. The holidays are classified into religious and non-religious (secular) holidays. And the religious ones are also classified into Islamic and Christian holidays.

Table-1. A list of the official holidays in Egypt

religious holidays		**non-religious holidays (secular holidays)**
Islamic holiday	**Christian holiday**	
Prophet Mohammad's Birthday, Eid Al-Fitr, Eid Al-Adha, Muslim New Year.	Eastern Christmas, Coptic Easter	Bank Holiday, Police Day, Sham El Nessim, Sinai Liberation Day, Labor Day, Revolution Day, Armed Forces Day.

Notes: the Source of table is the website of time and date www.timeanddate.com

[6]They examined the presence of Eid AL-Fitr, Eid AL-Adha, Israa and Miraj, Prophet Mohammed's Birthday, Hijri New Year day, Ashoura, National holiday, 1st Day of Ramadan, Christmas and Western New Year.

[7]The religious holidays examined were: Israa and Miraj, Eid AL-Fitr, Eid AL-Adha, Christmas, Ghattaseen and Hijri New Year day whereas the non-religious holidays examined were: Independence Day, Labor Day and Western New Year. The weekends holidays examined were: Fridays and Saturdays.

The list of the holidays celebrated in Egypt and their dates are collected from (www.timeanddate.com) Determining the dates of the holidays that do not have fixed dates is done by checking the data, the investing.com website, and the stock exchange website.[8] Afterwards, all the public holidays are separated into religious and non-religious, whereby the religious ones are also separated into Islamic and Christian holidays in order to examine each type of them separately.

In order to test the presence of the holiday effect, the daily prices and trading volume of the EGX30 stock index are used from January 2010 to November 2015. The daily data of the index are collected from (www.investing.com) Worth noting that the data is not available before 24/5/2010 as the website does not provide data for Egypt before that date.

The stock market index is used instead of the prices of the listed firms because the calendar effects are more easily detected when market indices are used in comparison to individual stocks (Officer, 1975; Pandey, 2002).

4.2. Methodology

As the period of the study includes the political crisis that affected Egypt in 2011, the effect of the crisis must be taken into account before proceeding further with testing the holiday effect. However a recent study by AL-Ahmad and Azzouz (2016) revealed that the crisis in Egypt did not have a significant impact on stock returns. Therefore we could proceed further with the examination of the holiday effect without having to take the crisis effect into account.

To examine the presence of holiday effect, five different holiday windows are used. This includes 7 days, 5 days, 3 days, 2 days and 1 day before and after the holiday. This allows us to study if the holiday effect persists more than one day before or after the holiday.

The returns on the stock market index are calculated as the natural logarithm of the daily stock prices as follows:

$$R_t = \ln(P_t/P_{t-1}) \times 100$$

Where R_t is the continuously compounded return, P_t is the closing price of the index at time t and P_{t-1} is the closing price of the index at time t-1.

To examine the holiday effect on the index trading volume, we use the percentage change in the daily trading volume of the stock index as follows:

$$\Delta VO_t = (VO_t - VO_{t-1})/VO_{t-1} \times 100$$

Where ΔVO_t is the percentage change in the trading volume of stock index on day t from the trading day before, VO_t is the trading volume of the index at time t and Vo_{t-1} is the trading volume of the index at time t-1.

Following Ariel (1990); Kim and Park (1994) and Chan *et al.* (1996) who used dummy variable regressions to examine pre and post-holiday returns, we use dummy variable regression to test the holiday effect on the index returns and trading volumes.

Chan *et al.* (1996) and Al-Nassar (2014) categorized the holidays into secular and religious ones, as the two types of holidays might have different impacts on stock prices.[9] Following them, we utilize the following OLS regression models to test the presence of different types of holiday effect on the index return and trading volume.

[8]Such as Islamic holidays , Coptic Easter and Sham El Nessim.

[9]Research by Chan, Khanthavit and Thomas (1996). and Al-Nassar (2014). show that returns for some of the holidays were significantly higher than the others.

Model-1.

$$R_t = \beta_0 + \beta_1\, pre\ Secular\ holidays + \beta_2\, pre\ Islamic\ holidays + \beta_3\, pre\ Christians\ holidays + \varepsilon_t$$

Where pre-secular is a dummy variable that takes the value of one if day t corresponds to 1 day pre to the secular holiday and zero otherwise. Pre-Islamic is a dummy variable that takes the value of one if day t corresponds to 1 day pre to the Islamic holiday and zero otherwise and pre-Christian is a dummy variable that takes the value of one if day t corresponds to 1 day pre to the Christian holiday and zero otherwise. In addition to examining the returns on one day pre to the three types of holidays, the model is run for four other different windows, those being days 2, 3, 5, and 7 before each type of holiday.

The intercept $\beta 0$ represents the mean return of trading days that do not correspond to a pre-holiday day of any of the three types of the holidays examined. The slope β_1 represents the difference between the mean return of the pre-secular holiday day examined[10] and the mean of other trading days' returns, while the slope $\beta_2$captures the difference between the mean return of the pre-Islamic holiday day examined and the mean of other trading days' returns and the slope β_3 represents the difference between the mean return of the pre-Christians holiday day examined

and the mean of other trading days' returns,$\varepsilon_t$is the error term. As referred above, this model is run for five different windows.

We utilize model 2 to test for the presence of post-holiday effect where the dummy variables are representing post-holiday days instead of pre-holiday days. As is the case with Model 1, Model 2 is repeated five times over five different windows.

Model-2.

$$R_t = \beta_0 + \beta_1\, post\ Secular\ holidays + \beta_2\, post\ Islamic\ holidays + \beta_3\, post\ Christians\ holidays + \varepsilon_t$$

A note on the two previous models is that they test the presence of pre and post-holiday effects for the three categories of holidays collectively.

However, if Eid Al-Adha for example is associated with higher pre-holiday returns whereas Eid Al-Fitr is associated with lower pre-holiday returns then looking at all Islamic holidays collectively might give misleading results as the impact of one holiday might cancel out that of the other. Consequently, the results might indicate that the pre Islamic holiday returns are not significantly different than the rest of the days.

To address this issue we run model 1 and 2 after disaggregating the holidays examined and looking at the individual holidays in each category. As is the case with the previous regressions, each regression is repeated for five different windows.

Model-3.

$$\begin{aligned} R_t = \beta_0 &+ \beta_1\, pre\ Bank + \beta_2\, pre\ Police\ Day + \beta_3\, pre\ Sham\ El\ Nessim\ and\ Coptic\ easter \\ &+ \beta_4\, pre\ Sinai\ liberation + \beta_5\, pre\ Labor\ day + \beta_6\, pre\ Revolutin\ day \\ &+ \beta_7\, pre\ Armed\ Forces\ Day + \beta_8\, pre\ Prophet\ Mohammad's\ Birthday + \beta_9\, pre\ Eid\ Al \\ &- Fitr + \beta_{10}\, pre\ Eid\ Al - Adha + \beta_{11}\, pre\ Muslim\ New\ Year + \beta_{12}\, pre\ Eastern\ Christmas \\ &+ \varepsilon_t \end{aligned}$$

[10]Which could be any of the following days: -1, -2, -3, -5, and -7 before the holiday day.

Model-4.

$$R_t = \beta_0 + \beta_1\, post\ Bank + \beta_2\, post\ Police\ Day + \beta_3\, post\ Sham\ El\ Nessim\ and\ Coptic\ easter + \beta_4\, post\ Sinai\ liberation + \beta_5\, post\ Labor\ day + \beta_6\, post\ Revolutin\ day + \beta_7\, post\ Armed\ Forces\ Day + \beta_8\, post\ Prophet\ Mohammad's\ Birthday + \beta_9\, post\ Eid\ Al - Fitr + \beta_{10}\, post\ Eid\ Al - Adha + \beta_{11}\, post\ Muslim\ New\ Year + \beta_{12}\, post\ Eastern\ Christmas + \varepsilon_t$$

After we test for the holiday effect on the index returns, the previous models are reexamined to test for the holiday effect on the index trading volume.

Table-2. Descriptive statistics of the EGX30 index return and trading volume around the three types of holidays.

	Index return			**Index trading volume**		
	Secular	**Islamic**	**Christian**	**Secular**	**Islamic**	**Christian**
t-1						
N	37	19	9	36	19	8
Mean	0.55	0.37	0.12	0.13	0.12	-0.04
T/Z sig	(0.00)***	(0.13)	(0.80)	(0.04)**	(0.21)	(0.69)
t-2						
N	73	38	18	70	38	16
Mean	0.46	0.58	0.32	0.10	0.09	0.08
T/Z sig	(0.00)***	(0.00)***	(0.28)	(0.24)	(0.20)	(0.35)
t-3						
N	108	57	27	103	57	24
Mean	0.45	0.53	0.52	0.11	0.10	0.07
T/Z sig	(0.00)***	(0.00)***	(0.05)**	(0.18)	(0.31)	(0.35)
t-5						
N	171	95	45	164	95	40
Mean	0.21	0.39	0.02	0.10	0.11	0.03
T/Z sig	(0.08)*	(0.00)***	(0.93)	(0.14)	(0.18)	(0.68)
t-7						
N	230	133	63	221	133	56
Mean	0.11	0.31	0.03	0.10	0.12	0.06
T/Z sig	(0.28)	(0.00)***	(0.85)	(0.12)	(0.15)	(0.31)
t+1						
N	38	19	9	36	19	8
Mean	0.41	0.42	0.85	0.08	0.10	0.16
T/Z sig	(0.35)	(0.30)	(0.04)**	(0.76)	(0.34)	(0.29)
t+2						
N	75	38	18	71	38	16
Mean	0.04	0.10	0.66	0.08	0.08	0.09
T/Z sig	(0.75)	(0.72)	(0.01)**	(0.48)	(0.74)	(0.36)
t+3						
N	111	57	27	106	57	25
Mean	-0.03	-0.02	0.58	0.08	0.10	0.11
T/Z sig	(0.80)	(0.91)	(0.01)**	(0.26)	(0.24)	(0.20)
t+5						
N	176	95	45	169	95	43
Mean	0.07	-0.06	0.55	0.09	0.07	0.10
T/Z sig	(0.23)	(0.69)	(0.00)***	(0.13)	(0.60)	(0.39)
t+7						
N	237	133	63	228	133	61
Mean	0.11	-0.003	0.36	0.09	0.12	0.08
T/Z sig	(0.05)**	(0.50)	(0.02)**	(0.14)	(0.07)*	(0.37)

Notes:*,**,*** indicates that the variable is significant at the 10%, 5% and 1% level respectively.

Source: SPSS statistical package.

5. EMPIRICAL RESULTS

Table (2) displays the summary of the descriptive statistic for the returns and trading volume of the three types of holidays in Egypt.[11]

As shown in the table, secular holidays are associated with positive returns. The returns are significant at the 1 % level on days -1, -2 and -3 before these holidays, and significant at the 5% level on day +7 after the holiday.

Islamic holidays are generally associated with positive returns. Except for day -1, the returns on the pre-holiday windows are positive and significant at the 1% level. The post-holiday returns however are positive in days +1 and +2 after the holiday, and negative in days +3, +5, and +7 after the holiday. None of the post Islamic holiday returns though is statistically significant.

Unlike Islamic holidays, Christian holidays are associated with positive and significant post-holiday returns (at the 5% level or better) in all the examined windows. Only day -3 before the holiday though reports positive and significant (at the 5% level) returns.

Interestingly, the results of testing the holiday effect on the trading volume reveal that in general the holidays are associated with positive impact on trading volume this holds in the pre and post-holiday days and regardless of the type of holiday being examined. Except for day -1 before secular holidays, none of the holidays is associated with a significant change in the trading volume.

Table (3) provides the results of testing secular holidays after disaggregating them. As revealed in the table, positive returns are found for the Bank holiday. However, these returns are only significant (at the 5% level) in days -3 before the holiday and days +1 and +2 after the holiday. Also positive returns are observed in the pre-Police Day holiday windows and negative ones in the post-Police Day holiday windows. Though only the pre-holiday returns are significantly different from zero (except for day -1). Sham El Nessim holiday is mainly associated with positive returns though these returns are only significant on days -1 and -3 before the holiday. Similarly, the Sinai Liberation Day holiday is mainly associated with positive returns though they are not statistically significant with the only significant returns reported in day +2 after the holiday and those returns are negative. The Labor Day holiday is also more associated with positive returns however none of them is statistically significant (at the 5% level).

The returns around the Revolution Day holiday are fluctuating between positive and negative, however no significant returns are reported except for days -5 and -7 before the holiday as these days experience positive significant returns. The returns on the pre-Armed Forces Day holiday are negative though not statistically significant whereas the post-holiday returns are mainly positive though also not statistically significant.

The findings from the disaggregated data confirm our earlier concern regarding treating all the holidays as a one group. For example the positive post-holiday returns experienced in the Bank holiday is apparently cancelled out by the negative post-holiday returns reported in the Police day, the Sinai Liberation day and the Revolution day. This resulted in the insignificant post-secular holiday returns revealed in table (2). Results of testing the holiday effect of the disaggregated holidays on the index trading volume are reported in table (4). In contrast to the results reported when the secular holidays were aggregated, the table reveals that some secular holidays have an effect on the trading volume. The Bank holiday for example appears to be associated with positive percentage change in the trading volume before and after the holiday. This change is significant at the 5% level or better from day -7 before the holiday to day +7 after the holiday. The Police Day holiday is mainly associated with positive change in the trading volume, though only day -3 before the holiday experiences significant increase at the 5%

[11]The Shapiro-Wilk test was applied to test for the normality of data. The T test was applied if the distribution of the return is normal. Alternatively, the non-parametric Wilcoxon signed rank test was used.

level. Sham El Nessim holiday is also associated with a positive change in the trading volume however it is not statistically significant. The changes in the trading volume around the Sinai Liberation Day holiday, the Labor Day, and the Revolution Day holiday are fluctuating between positive and negative, however no significant changes in the trading volume are reported.

Table-3. Descriptive statistics of the EGX30 index return around the individual secular holidays.

Secular	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
Bank										
N	9	18	27	45	63	9	18	27	45	63
Mean	0.53	0.29	0.51	0.43	0.15	1.65	1.02	0.65	0.33	0.32
T/Z sig	(0.22)	(0.28)	(0.04)**	(0.20)	(0.94)	(0.05)**	(0.03)**	(0.17)	(0.26)	(0.15)
Police Day										
N	4	8	12	20	28	5	10	15	25	35
Mean	1.08	1.15	1.05	0.56	0.47	-0.06	-0.89	-1.31	-0.53	-0.24
T/Z sig	(0.19)	(0.01)**	(0.01)**	(0.04)**	(0.04)**	(0.98)	(0.58)	(0.28)	(0.95)	(0.57)
Sham El Nessim										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.99	0.66	0.79	-0.18	-0.14	0.58	0.30	0.24	0.20	0.16
T/Z sig	(0.04)**	(0.10)	(0.03)**	(0.62)	(0.63)	(0.39)	(0.37)	(0.28)	(0.38)	(0.36)
Sinai Liberation Day										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.13	0.43	0.57	0.06	0.09	-0.23	-0.5	-0.41	0.14	0.13
T/Z sig	(0.72)	(0.32)	(0.12)	(0.85)	(0.72)	(0.46)	(0.03)**	(0.06)*	(0.52)	(0.45)
Labor Day										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.9	0.49	0.17	-0.01	0.15	0.22	0.41	0.48	0.19	0.13
T/Z sig	(0.08)*	(0.14)	(0.55)	(0.95)	(0.51)	(0.7)	(0.23)	(0.09)*	(0.37)	(0.41)
Revolution Day										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.41	0.35	0.26	0.49	0.46	-0.45	-0.59	-0.35	-0.04	0.06
T/Z sig	(0.13)	(0.17)	(0.23)	(0.04)**	(0.02)**	(0.53)	(0.07)*	(0.21)	(0.84)	(0.74)
Armed Forces Day										
N	5	10	15	25	35	5	10	15	25	35
Mean	-0.12	-0.21	-0.30	-0.32	-0.36	0.06	-0.11	0.11	0.24	0.14
T/Z sig	(0.83)	(0.51)	(0.30)	(0.20)	(0.10)	(0.95)	(0.84)	(0.83)	(0.51)	(0.63)

Source: SPSS statistical package.

The Armed Forces Day holiday is mainly associated with positive changes in the trading volume though none of them is statistically significant at the 5% level.

Table (5) shows the results of testing the individual Islamic holidays. As clarified in the table, most of the returns surrounding the Prophet Mohammad's Birthday are Positive, though they are only significant (at the 5% level) in day -7 before the holiday.

Positive returns are observed around Eid Al-Fitr Holiday. However the returns are only significant (at the 5% level) in days -3 and -5 before the holiday and days +1 and +2 after the holiday.

Interestingly the returns around Eid Al-Adha are fluctuating between positive in the pre-holiday windows and negative in most of the post-holiday windows. However, they are only significant at the 5% level in days -1 and -7 before the holiday and days +5 and +7 after the holiday.

Table-4. Descriptive statistics of the EGX30 index trading volume around the individual secular holidays.

Secular	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
Bank										
N	9	18	27	45	63	9	18	27	45	63
Mean	0.20	0.11	0.11	0.11	0.12	0.30	0.15	0.07	0.11	0.10
T/Z sig	(0.18)	(0.24)	(0.14)	(0.09)*	(0.00)***	(0.04)**	(0.03)**	(0.00)***	(0.00)***	(0.00)***
Police Day										
N	4	8	12	20	28	4	8	12	20	28
Mean	0.18	0.10	0.33	0.18	0.15	-0.14	-0.01	0.04	0.05	0.08
T/Z sig	(1)	(0.59)	(0.04)**	(0.24)	(0.23)	(0.66)	(0.33)	(0.68)	(0.62)	(0.67)
Sham El Nessim										
N	4	8	12	20	28	4	8	13	23	33
Mean	-0.11	0.07	0.05	0.02	0.06	0.10	0.07	0.03	0.10	0.09
T/Z sig	(1)	(0.55)	(0.60)	(0.84)	(0.38)	(0.70)	(0.58)	(0.77)	(0.48)	(0.37)
Sinai Liberation Day										
N	4	8	12	20	28	4	8	13	23	33
Mean	-0.07	0.14	0.13	0.11	0.03	-0.05	0.05	0.09	0.08	0.06
T/Z sig	(0.68)	(0.87)	(0.66)	(0.37)	(0.82)	(0.80)	(0.78)	(0.48)	(0.27)	(0.29)
Labor Day										
N	5	9	13	21	29	5	10	15	25	35
Mean	0.27	0.05	0.08	0.12	0.10	-0.12	0.09	0.04	-0.02	0.01
T/Z sig	(0.06)*	(0.69)	(0.46)	(0.26)	(0.38)	(0.35)	(0.42)	(0.60)	(0.77)	(0.91)
Revolution Day										
N	5	10	15	25	35	5	10	15	25	35
Mean	-0.01	0.24	0.08	0.14	0.12	0.17	-0.04	0.05	0.06	0.06
T/Z sig	(0.87)	(0.39)	(0.96)	(0.74)	(0.48)	(0.35)	(0.75)	(0.67)	(0.40)	(0.66)
Armed Forces Day										
N	5	10	15	25	35	5	10	15	25	35
Mean	-0.12	0.02	0.01	0.01	0.03	0.07	0.21	0.26	0.20	0.21
T/Z sig	(0.83)	(0.91)	(0.94)	(0.86)	(0.59)	(0.80)	(0.28)	(0.07)*	(0.06)*	(0.07)*

Source: SPSS statistical package.

The Muslim New Year holiday is generally associated with positive returns though they are only significant in days -2 and -3 before the holiday.

As argued above regarding the suitability of aggregating the data, apparently the negative post-Eid Al-Adha returns are cancelled out by the positive post-holiday returns experienced during the other Islamic holidays (Prophet Mohammad's Birthday, Eid Al-Fitr, and Muslim New Year) which led to the insignificant post-Islamic holiday returns shown in table (2).

The results of examining the index trading volume around the disaggregated Islamic holidays are reported in table (6). As revealed in the table, most of the changes in the trading volume surrounding the Prophet Mohammad's Birthday, Eid Al-Fitr, Eid Al-Adha and Muslim New Year holidays are positive, though none of them is statistically significant at the 5% level.

Table-5. Descriptive statistics of the EGX30 index return around the individual Islamic holidays.

Islamic	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
Prophet Mohammad's Birthday										
N	4	8	12	20	28	4	8	12	20	28
Mean	-0.24	0.3	0.66	0.48	0.71	0.07	0.08	-0.15	0.19	0.58
T/Z sig	(0.81)	(0.54)	(0.14)	(0.1)	(0.04)**	(0.89)	(0.81)	(0.72)	(0.58)	(0.06)*
Eid Al-Fitr										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.43	0.65	0.80	0.62	0.31	0.51	0.37	0.24	0.08	0.13
T/Z sig	(0.32)	(0.09)*	(0.01)**	(0.01)**	(0.16)	(0.04)**	(0.04)**	(0.28)	(0.11)	(0.12)
Eid Al-Adha										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.79	0.58	0.35	0.34	0.34	0.40	-0.17	-0.48	-0.76	-0.62
T/Z sig	(0.05)**	(0.07)*	(0.17)	(0.11)	(0.04)**	(0.50)	(0.68)	(0.27)	(0.02)**	(0.02)**
Muslim New Year										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.38	0.73	0.33	0.13	-0.05	0.63	0.13	0.28	0.30	0.03
T/Z sig	(0.35)	(0.02)**	(0.04)**	(0.09)*	(0.34)	(0.69)	(0.87)	(0.60)	(0.39)	(0.54)

Source: SPSS statistical package.

Table-6. Descriptive statistics of the EGX30 index trading volume around the individual Islamic holidays.

Islamic	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
Prophet Mohammad's Birthday										
N	4	8	12	20	28	4	8	12	20	28
Mean	0.07	0.02	0.09	0.10	0.13	-0.26	-0.07	0.03	0.00	0.14
T/Z sig	(0.61)	(0.72)	(0.43)	(0.18)	(0.16)	(0.08)	(0.50)	(0.76)	(0.60)	(0.12)
Eid Al-Fitr										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.01	0.10	0.05	0.11	0.09	0.18	0.09	0.14	0.14	0.10
T/Z sig	(0.97)	(0.50)	(0.65)	(0.54)	(0.53)	(0.50)	(0.46)	(0.22)	(0.38)	(0.45)
Eid Al-Adha										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.42	0.18	0.14	0.07	0.13	0.10	0.10	0.13	0.09	0.11
T/Z sig	(0.15)	(0.33)	(0.32)	(0.45)	(0.27)	(0.60)	(0.38)	(0.28)	(0.29)	(0.62)
Muslim New Year										
N	5	10	15	25	35	5	10	15	25	35
Mean	-0.03	0.03	0.10	0.15	0.12	0.31	0.15	0.10	0.03	0.14
T/Z sig	(0.86)	(0.79)	(0.78)	(0.51)	(0.91)	(0.24)	(0.76)	(0.71)	(0.82)	(0.38)

Source: SPSS statistical package.

Table (7) displays the results of the disaggregated Christian holidays. It is clear from the table that both the Coptic Easter and the Eastern Christmas are generally associated with positive returns. However, the impact of Christmas holiday appears to be stronger as it is associated with more significant returns since all of its post-holiday returns are significant at the 5% level or better, whereas only days -1 and -3 before the Coptic Easter are associated with significant positive returns.

Similar to the conclusion drawn above, the different behavior of stock returns in the pre-Coptic Easter and pre-Eastern Christmas led to the insignificant pre-Christian holiday returns reported in table (2).

Table-7. Descriptive statistics of the EGX30 index return around the individual Christian holidays.

Christians	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
Coptic Easter										
N	5	10	15	25	35	5	10	15	25	35
Mean	0.99	0.66	0.79	-0.18	-0.14	0.58	0.30	0.24	0.20	0.16
T/Z sig	(0.04)**	(0.10)	(0.03)**	(0.62)	(0.63)	(0.39)	(0.37)	(0.28)	(0.38)	(0.36)
Eastern Christmas										
N	4	8	12	20	28	4	8	12	20	28
Mean	-0.98	-0.10	0.19	0.27	0.25	1.18	1.12	1.01	0.98	0.60
T/Z sig	(0.15)	(0.83)	(0.64)	(0.30)	(0.27)	(0.01)**	(0.00)***	(0.01)**	(0.00)***	(0.02)**

Source: SPSS statistical package

The results of testing the index trading volume around the Christian holidays are reported in table (8). As can be seen from the table, the trading volume is found to be mostly positive in all the days surrounding the Christian holidays however it is statistically insignificant at the 5% level.

Table -8. Descriptive statistics of the EGX30 index trading volume around the individual Christian holidays.

Christians	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
Coptic Easter										
N	4	8	12	20	28	4	8	13	23	33
Mean	-0.11	0.07	0.05	0.02	0.06	0.10	0.07	0.03	0.10	0.09
T/Z sig	(1)	(0.55)	(0.60)	(0.84)	(0.38)	(0.70)	(0.58)	(0.77)	(0.48)	(0.37)
Eastern Christmas										
N	4	8	12	20	28	4	8	12	20	28
Mean	0.04	0.08	0.08	0.05	0.07	0.22	0.11	0.20	0.11	0.07
T/Z sig	(0.79)	(0.52)	(0.45)	(0.54)	(0.32)	(0.34)	(0.50)	(0.20)	(0.63)	(0.66)

Source: SPSS statistical package.

Table (9) presents the results of applying the regression models 1 and 2 on the market index returns. Consistent with the results reported earlier in the univariate analysis, positive pre-holiday returns are reported for secular and Islamic holidays, whereas positive post-holiday returns are reported for the Christian holidays. A significant positive holiday effect is found in days -1, -2, and -3 before the secular holidays. The Islamic holiday effect is found to be positive and significant in days -2, -3, -5, and -7 before the holiday whereas the Christian holiday effect is found to be positive and significant in days +3 and +5 after the holiday.

Table (10) reports the results of applying the regression models 1 and 2 on the index trading volume. As illustrated in the table, the results indicate that the secular and Islamic holidays are associated with positive trading volume whereas the Christian holidays are mainly associated with negative trading volume. Nevertheless, none of these changes in trading volumes is statistically significant at the 5% level.

Table-9. Regression results of model 1 and 2 which examine the holiday effect on the EGX30 index return.

	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
Con	-0.01	-0.04	-0.06	-0.05	-0.05	-0.01	-0.00	0.00	-0.01	-0.02
	(0.81)	(0.48)	(0.24)	(0.38)	(0.39)	(0.82)	(0.96)	(0.95)	(0.86)	(0.66)
Sec	0.56	0.41	0.38	0.21	0.12	0.29	-0.03	-0.09	0.01	0.08
	(0.04)**	(0.04)**	(0.02)**	(0.13)	(0.33)	(0.29)	(0.88)	(0.59)	(0.92)	(0.52)
Isl	0.30	0.55	0.51	0.40	0.32	0.39	0.11	-0.01	-0.08	-0.02
	(0.43)	(0.04)**	(0.02)**	(0.02)**	(0.03)**	(0.30)	(0.68)	(0.97)	(0.64)	(0.87)
Chr	-0.22	-0.01	0.29	-0.22	-0.10	0.60	0.69	0.67	0.60	0.36
	(0.69)	(0.98)	(0.37)	(0.39)	(0.66)	(0.28)	(0.08)*	(0.04)**	(0.02)**	(0.11)
N	1297	1297	1297	1297	1297	1297	1297	1297	1297	1297

Notes:Con stands for constant, **Sec** stands for secular holidays, **Isl** stands for Islamic holidays and **Chr** stands for Christian holidays.

Source: SPSS statistical package

Table-10. Regression results of model 1 and 2 which examine the holiday effect on the EGX30 index trading volume.

	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	+7
Con	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07	0.06
	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***
Sec	0.07	0.03	0.04	0.03	0.03	-0.01	0.00	0.00	0.02	0.02
	(0.37)	(0.59)	(0.39)	(0.40)	(0.41)	(0.96)	(0.94)	(1)	(0.69)	(0.54)
Isl	0.04	0.01	0.02	0.03	0.04	0.03	0.00	0.03	-0.01	0.05
	(0.73)	(0.91)	(0.77)	(0.48)	(0.29)	(0.78)	(0.98)	(0.64)	(0.87)	(0.18)
Chr	-0.14	-0.01	-0.02	-0.06	-0.03	0.09	0.01	0.04	0.02	-0.01
	(0.37)	(0.93)	(0.79)	(0.39)	(0.63)	(0.59)	(0.94)	(0.67)	(0.76)	(0.90)
N	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103

Source: SPSS statistical package.

Table (11) shows the regression results of models 3 and 4 that examine the effect of holidays on stock returns after disaggregating the holidays. As revealed in the table, there is a positive holiday effect on days +1, +2, and +3 after the Bank holiday as the returns on these days are positive and significant at the 5 % level or better.

Interestingly the Police Day holiday is associated with significant positive returns on days -2 and -3 before the holiday, and significant negative returns on day +3 after the holiday. Eid Al-Fitr holiday is associated with positive significant returns on day -3 before the holiday whereas Eid Al-Adha holiday is associated with significant negative returns in days +5 and +7 after the holiday. Eastern Christmas holiday is associated with positive and significant returns in days +2, +3, and +5 after the holiday.

Table (12) which reports the results of applying the regression model 3 and 4 on the index trading volume, indicates that no holiday effect is detected before or after any of the examined holidays, except for the Police Day holiday which is associated with significant positive trading volume on day -3 before the holiday.

Table-11. Regression results of model 3 and 4 which examine the disaggregated holiday effect on the EGX30 index return.

	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
CON	-0.01	-0.03	-0.06	-0.05	-0.05	-0.01	-0.00	-0.00	-0.01	-0.02
	(0.85)	(0.50)	(0.26)	(0.38)	(0.42)	(0.78)	(0.90)	(0.96)	(0.81)	(0.76)
BAN	0.62	0.33	0.53	0.43	0.10	1.71	1.02	0.65	0.19	0.18
	(0.26)	(0.40)	(0.09)*	(0.09)*	(0.65)	(0.00)***	(0.01)**	(0.04)**	(0.46)	(0.43)
POL	1.27	1.20	1.03	0.54	0.34	0.02	-0.89	-1.31	-0.54	-0.35
	(0.13)	(0.04)**	(0.03)**	(0.15)	(0.28)	(0.97)	(0.09)*	(0.00)***	(0.10)	(0.22)
S&C[12]	-0.05	0.39	0.48	0.24	0.15	-0.32	-0.58	-0.53	0.02	0.01
	(0.94)	(0.45)	(0.26)	(0.50)	(0.64)	(0.66)	(0.26)	(0.22)	(0.97)	(0.97)
SLD	0.91	0.53	0.23	-0.00	0.16	0.23	0.41	0.48	0.17	0.10
	(0.21)	(0.30)	(0.59)	(0.99)	(0.61)	(0.75)	(0.41)	(0.24)	(0.61)	(0.74)
LAB	0.42	0.38	0.21	0.40	0.43	-0.44	-0.58	-0.39	-0.06	0.04
	(0.56)	(0.45)	(0.61)	(0.22)	(0.13)	(0.54)	(0.26)	(0.35)	(0.87)	(0.89)
REV	-0.28	-0.31	-0.34	-0.36	-0.47	-0.01	-0.07	0.22	0.42	0.36
	(0.70)	(0.55)	(0.42)	(0.27)	(0.10)	(0.99)	(0.89)	(0.61)	(0.20)	(0.21)
AFD	0.94	0.36	0.57	-0.39	-0.27	0.48	0.43	0.45	0.29	0.23
	(0.20)	(0.49)	(0.19)	(0.25)	(0.37)	(0.51)	(0.40)	(0.29)	(0.40)	(0.44)
PMB	-0.70	-0.05	0.32	0.26	0.60	-0.35	0.05	0.02	0.11	0.54
	(0.41)	(0.94)	(0.51)	(0.50)	(0.07)*	(0.67)	(0.93)	(0.98)	(0.78)	(0.10)
EAF	0.44	0.69	0.83	0.57	0.23	0.52	0.37	0.29	0.11	0.13
	(0.54)	(0.18)	(0.04)**	(0.08)*	(0.41)	(0.47)	(0.46)	(0.49)	(0.74)	(0.64)
EAA	0.86	0.68	0.47	0.46	0.51	0.42	-0.15	-0.52	-0.83	-0.71
	(0.24)	(0.19)	(0.26)	(0.16)	(0.07)*	(0.57)	(0.78)	(0.22)	(0.01)**	(0.01)**
MNY	0.39	0.77	0.39	0.18	0.02	0.65	0.14	0.28	0.31	0.02
	(0.58)	(0.13)	(0.35)	(0.59)	(0.95)	(0.37)	(0.79)	(0.50)	(0.34)	(0.94)
ECH	-0.97	-0.06	0.25	0.12	0.07	1.20	1.13	1.01	0.90	0.37
	(0.23)	(0.91)	(0.60)	(0.75)	(0.84)	(0.14)	(0.05)**	(0.03)**	(0.02)**	(0.27)
N	1297	1297	1297	1297	1297	1297	1297	1297	1297	1297

Notes:CON stands for constant, **BAN** stands for Bank holiday, **POL** stands for Police Day holiday, **S&C** stands for Sham El Nessim & Coptic Easter holiday, **SLD** stands for Sinai Liberation Day holiday, **LAB** stands for Labor Day holiday, **REV** stands for Revolution Day holiday, **AFD** stands for Armed Forces Day holiday, **PMB** stands for Prophet Mohammad's Birthday holiday, **EFA** stands for Eid Al-Fitr holiday, **EAA** stands for Eid Al-Adha holiday, **MNY** stands for Muslim New Year holiday and **ECH** stands for Eastern Christmas.

Source: SPSS statistical package

Overall the results confirm the presence of a holiday effect in the Egyptian market which is in line with some previous research on other Arab markets like (Al-Rjoub, 2005) and in contrast to other research that could not document a holiday effect like (Al-Loughani *et al.*, 2005). Worth noting that the fact that most holidays are associated with positive pre-holiday returns is more consistent with positive mood and emotions dominating investors and thus causing an optimistic judgment which results in a rise in the stock prices as suggested by Nofsinger (2005). Conversely, no strong evidence is reported in favor of the uncertainty effect or of the liquidity need as suggested by Amihud and Mendelson (1987) and Keynes (1936) respectively. Moreover, Islamic holidays appear to have a stronger effect on stock returns (significant returns in four of the five windows examined) followed

[12]Since the Coptic Easter and Sham El Nessim Holidays follow each other they were treated as one holiday.

by Secular holidays and finally comes Christian holidays. The results also confirm the argument that aggregating the holidays together in one group might lead to a biased conclusion towards the rejection of the presence of the holiday effect as the effect of some holidays might cancel out that of the other.

Table-12. Regression results of model 3 and 4 which examine the holiday effect on the EGX30 index trading volume.

	t-1	t-2	t-3	t-5	t-7	t+1	t+2	t+3	t+5	t+7
CON	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)***
BAN	0.14	0.05	0.05	0.05	0.06	0.27	0.10	0.00	0.05	-6.38
	(0.35)	(0.63)	(0.57)	(0.51)	(0.33)	(0.07)*	(0.37)	(0.97)	(0.46)	(0.51)
POL	0.12	0.05	0.28	0.11	0.07	-0.12	-0.04	-0.02	-0.01	-0.01
	(0.59)	(0.77)	(0.04)**	(0.27)	(0.40)	(0.61)	(0.79)	(0.88)	(0.11)	(0.96)
S&C	-0.14	0.07	0.06	0.04	-0.06	-0.13	-0.02	0.02	0.03	0.03
	(0.52)	(0.66)	(0.65)	(0.67)	(0.53)	(0.57)	(0.89)	(0.85)	(0.47)	(0.78)
SLD	0.19	-0.02	0.01	0.06	0.06	-0.19	0.02	-0.02	-0.11	-0.11
	(0.33)	(0.87)	(0.94)	(0.55)	(0.50)	(0.33)	(0.91)	(0.84)	(0.28)	(0.26)
LAB	-0.08	0.17	0.01	0.06	0.05	0.10	-0.12	-0.03	-0.03	-0.03
	(0.67)	(0.24)	(0.92)	(0.50)	(0.55)	(0.62)	(0.41)	(0.77)	(0.68)	(0.74)
REV	0.17	-0.08	-0.08	-0.06	-0.06	-0.01	0.14	0.19	0.13	0.13
	(0.40)	(0.57)	(0.50)	(0.53)	(0.45)	(0.96)	(0.35)	(0.11)	(0.54)	(0.16)
AFD	-0.18	0.01	-0.02	-0.07	-0.00	0.02	-0.01	-0.04	0.05	0.05
	(0.42)	(0.98)	(0.86)	(0.47)	(0.98)	(0.91)	(0.95)	(0.73)	(0.70)	(0.63)
PMB	-0.07	-0.07	27.43	0.00	0.04	-0.37	-0.16	-0.04	-0.09	-0.09
	(0.77)	(0.65)	(0.64)	(0.98)	(0.70)	(0.11)	(0.34)	(0.76)	(0.75)	(0.40)
EAF	-0.07	0.03	0.03	0.03	0.01	0.10	0.02	0.07	0.07	0.07
	(0.73)	(0.83)	(0.83)	(0.79)	(0.92)	(0.60)	(0.90)	(0.52)	(0.86)	(0.43)
EAA	0.31	0.12	-0.03	0.01	0.09	0.03	0.00	0.02	-0.01	-0.01
	(0.12)	(0.40)	(0.45)	(0.90)	(0.28)	(0.88)	(0.98)	(0.86)	(0.60)	(0.93)
MNY	-0.10	-0.04	0.01	0.08	0.05	0.24	0.08	0.03	-0.04	-0.04
	(0.62)	(0.75)	(0.77)	(0.37)	(0.49)	(0.23)	(0.58)	(0.83)	(0.17)	(0.65)
ECH	-0.04	0.01	-0.06	-0.04	-0.04	0.15	0.03	0.13	0.04	0.04
	(0.86)	(0.95)	(0.95)	(0.71)	(0.66)	(0.50)	(0.84)	(0.30)	(0.70)	(0.71)
N	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103

Notes:CON stands for constant, **BAN** stands for Bank holiday, **POL** stands for Police Day holiday, **S&C** stands for Sham El Nessim & Coptic Easter holiday, **SLD** stands for Sinai Liberation Day holiday, **LAB** stands for Labor Day holiday, **REV** stands for Revolution Day holiday, **AFD** stands for Armed Forces Day holiday, **PMB** stands for Prophet Mohammad's Birthday holiday, **EFA** stands for Eid Al-Fitr holiday, **EAA** stands for Eid Al-Adha holiday, **MNY** stands for Muslim New Year holiday and **ECH** stands for Eastern Christmas.

Source: SPSS statistical package

6. CONCLUSION

This study examined the holiday effect in the Egyptian Exchange (EGX), over the period 2010 to 2015. It analyzed stock market index returns and trading volumes around the official holidays in this market.

The holidays were categorized into three main types, those being: secular, Islamic, and Christians. The aim was to examine if there are any differences in the holiday effect between religious and non-religious holidays and within the religious holidays themselves.

The univariate analysis showed differences in the behavior of stock prices between secular holidays and religious ones. Secular holidays experienced positive returns around them, which were only significant on the pre-holiday period. Islamic ones, on the other hand, experienced positive returns on the pre-holiday period and negative ones in the post-holiday period. Only the pre-holiday returns however were significant at the 5% level. Christian holidays also showed positive returns around them with the returns being only significant in the post-holiday periods.

The dummy variable regressions confirmed the earlier findings of the univariate one. The stock returns were positive around both secular and Islamic holidays whereas Christian holidays experienced negative returns prior to the holiday and positive ones after it though only the post-holiday returns were significant at the 5% level.

When each type of holiday was disaggregated into its single components, the pre secular holidays' positive returns appeared to be driven by the effect of the Police Day holiday whereas the pre Islamic holidays' positive returns appeared to be more driven by Eid Al-Fitr holiday. The significant positive returns following Christian holidays appeared to be driven by the significant positive returns following the Eastern Christmas.

Worth noting that the regression results on disaggregated holidays documented positive holiday effect on returns following the Bank holiday and a negative one following the Police Day and Eid Al-Adha holiday. These findings confirm the argument that stock prices might behave differently around the individual holidays of the same type, which highlights the importance of disaggregating the holidays to be able to reach an accurate conclusion regarding the presence of the holiday effect.

Interestingly, the descriptive statistics of the Index trading volume showed no differences in the behavior of the trading volume between secular holidays and religious ones.

The dummy variable regressions revealed no differences in the behavior of trading volume between secular and Islamic holidays as both of them experienced positive changes around holidays, whereas Christian holidays showed negative changes in the volume prior to the holiday and positive ones after it. None of the changes in the trading volume, however, was statistically significant.

Again, when the holidays were examined individually, a significant positive holiday effect on the index trading volume was reported in day -3 prior to the Police Day holiday.

Overall the findings were in favor of optimism surrounding the holidays, and thus driving stock prices up as suggested by Nofsinger (2005) rather than the uncertainty explanation, where investors are less informed which leads them to conservatism dealing (Amihud and Mendelson, 1987) or the liquidity needs explanations as suggested by Keynes (1936). Future research is needed though to explore whether the holiday effects are driven by other seasonal effects such as the End of Week and Turn of Month effects which can be the driver of this abnormal returns rather than the holidays themselves. Other future research may also examine whether the length of the holiday has an impact on the holiday effect and whether any profitable trading strategy could be developed on the basis of this effect after taking into account the transaction costs associated with such a strategy.

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