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Return Anomalies in the Kuwaiti Stock Market

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ABSTRACT

This paper intends to investigate the existence of daily return anomalies and the weekend effect within Boursa Kuwait, Kuwait's stock exchange. Kuwait as an economy has continued to be opened up to foreign investment and as foreign funds begin to flood into the market; return anomalies akin to those within international markets begin to materialize, bringing new opportunities for abnormal returns and arbitrage. The premise of this paper is the existence of the January effect and the Weekend effect, and uses econometric methods in support of their existence, bringing into question the challenges to market efficiency and the changing landscape for investors and their strategies.

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Introduction

Anomalous regularities in security returns have been analyzed for a long time as they represent a great challenge for the equilibrium theories of asset returns. Besides anomalies that are related to firm characteristics, such as the size anomaly of Banz (1981) and Reinganum (1981), there is a body of literature that tackles peculiar patterns labeled as calendar (or seasonal) anomalies as rates of returns behave differently and consistently in certain times of the year. From these, there is the weekend effect where stock returns are found to be significantly negative in the first trading day (Monday) as documented by Cross (1973), French (1980), Gibbons and Hess (1981), Keim and Stambaugh (1984) and Ball and Bowers (1986), to name a few.

Given the challenges posed to equilibrium theories of asset return, studies of anomalous regularities in returns on securities are extensive and well documented. Whilst Banz (1981) and Reinganum (1981) covered size anomalies of firm characteristics, there exists a body of work focused on 'peculiar' patterns, such as those relating to seasonal or calendar anomalies. Of particular interest in this particular market, are ones termed 'Monday Effect' and 'Weekend Effect'

The Monday effect, as covered extensively by Cross (1973), French (1980), Gibbons and Hess (1981), Keim and Stambaugh (1984) and Ball and Bowers (1986), to name a few; discusses falling or negative returns on a Monday, the first day or the markets opening following closure over the weekend.

Similarly, Rozeff and Kinney (1976), Tinic and West (1984) and Gultekin and Gultekin (1983), among others; detail what is referred to as the 'January Effect', referring to expected returns and risk displaying a consistent and reliable relationship in January, whilst the exclusion of January returns would result in an almost-zero risk premium. Studies show positive returns on stocks in January in many international markets in addition to those in the United States.

Whilst anomalies such as these are considered by many as evidence against market efficiency; despite being heavily documented, the more recent findings do not always correlate with previous results, such as the previously documented declining predictability of returns (Lo et al 1997). Similarly, Agrawal and Tandon (1994) for example, show the Monday effect to be virtually absent in many countries in the 1980's.

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There is also a distinct contrast in the presence of such anomalies in developing markets as compared with developed markets. Jaffe and Westerfield 1989; Agrawal and Tandon 1994 presented how evidence of anomalies in developing and emerging markets was rare and inconclusive; despite extensively documented studies indicating their presence in more developed markets. As these newer markets are developing, they are structurally different from developed stock markets. Institutional differences exist between developed and developing markets. For example, while Branch (1977) and Brauer and Chang (1990) validate the January effect using tax loss transactions, that methodology fails to hold relevance in markets that function in a free-tax economyⁱ, such as that in Kuwait. Other factors too play a vital role such as the availability of information, local accounting and legal policies, and various other microstructure factors. Seasonal anomalies may be impacted by many such factors, this might have its effect on the nature of the seasonal anomalies, manifesting in fluctuations in the mode of the anomalies.

This study therefore looks to add to the existing literature through unique analysis in either supporting or rejecting both the Monday and the January effects in a unique market setting where the week starts on Saturday and ends on Wednesday and where no taxes are levied. This is the first such study for calendar anomalies within the KSE, which employs clean and reliable data commencing from the inception of the KSE in 1984; and therefore, looks to be more exploratory in nature than analytical with respect to anomaly rational.

Boursa Kuwait (BK)

Many researchers have compared and analysed the properties of Boursa Kuwait with major international stock markets. For example, Butler et al (Journal of Banking and Finance, 1992) examined the efficiency of BK and documented what they found to be a competitive auction stock exchange system. Al-loughani (1995) also finds that the behavior of the stock returns in BK, like that in US, is not random walk. Like most other markets, BK has undergone several statutory and institutional changes over time, often driven by "boom-bust" scenarios that occur within the cycle of any stock market. More recently, Kuwait Capital Agency was set up as the regulatory body overseeing Boursa Kuwait, also bringing about significant reform.

The Study Hypothesis

Return anomalies are found in many advanced and emerging stock markets and are unusual stock market return behavior that tend to be repeated consistently over time. It has been one of the main themes in empirical financial research work as they denote a great challenge against the market efficiency of the asset returns hypothesis. Based on the common literature of return anomalies (Cross (1973), French (1980), Gibbons and Hess (1981), Keim and Stambaugh (1984), Connolly R. (1989), Al-loughani, N., (1995), Bekaert, G., and C. Harvey, (2003)), the following hypotheses are to be examined:

(H1): Stock returns on Sunday are, on average, negative (the weekend effect)

(H2): Stock returns in January are, on average, positive (January effect)

Research and Method

Data

This study uses daily closing index values that span the period 4-Jan-2015 to 31-Dec-2020, with total sample daily observations of 1530. The index used is constructed by Boursa Kuwait and is capitalization weighted index that includes all Kuwaiti firms. Compound rate of returns are calculated by the following formula:

$\text{Log}(\text{Rit} / \text{Rit}(-1))$ so as to account for continuous returns.

Table 1: Boursa Kuwait Stock Returns (Jan. 2015 – Dec. 2020)

Time period	Mean	SD	Skew	Kurt
All Period	0.002	0.0013	0.0154	29.6521
Sunday	0.002	0.0092	0.8916	7.9399
Monday	-0.0007	0.0089	1.2849	26.6080
Tuesday	-0.0006	0.0102	-4.1410	57.4989
Wednesday	0.0000	0.0088	1.0049	14.0314
Thursday	-0.0005	0.0085	2.0740	32.8352

Table (1) has summary statistics of the data. As the table shows, returns on Sunday seem to be negative while returns on the last trading day seem to be positive. Other days, such as Monday and Tuesday, are also negative. A formal test has to be carried out in order to formally confirm or reject the return anomalies in Boursa Kuwait.

Following others (like Keim and Stambuagh 1984), this study tests for the weekend effect using the following model:

$$R_i = f(D1, D2, D3, D4, D5)$$

Where R_i denotes the daily returns. D1-D5 are dummy variables that take the value of "1" for the respective day and "zero" otherwise where "D1" represents Sunday and "D2" represents Monday, etc. The regression test is also carried out for the whole period (6 years). Furthermore, a mean test is to be carried out to test the significance of the Weekend effect as well as the January effect.

Findings

The Weekend Effect

Table (2) contains a mean test for the daily returns of Boursa Kuwait. As panel (A) in table (1) shows, there seems to be a consistent weekend effect as the first trading day has significant negative returns for all stocks listed on the Boursa Kuwait. The p-value indicates that this result is significant at the 5% level. In addition, we can see that the last trading day in Boursa Kuwait experiences positive returns, but only significant on the 10% p-value. To summarize; it seems that the weekend effect exists in Boursa Kuwait in the form of negative returns on the first trading day and positive returns on the last trading day of the week.

Table 2: Daily Mean Returns

	Sun	Mon	Tue	Wed	Thur.
	-0.25	0.006	0.06	0.052	0.0314
	(0.0312)	(0.035)	(0.1084)	(0.914)	(0.0811)

A regression analysis is also conducted to corroborate the results of table (2). The results of this analysis are contained in table (3) which shows that the returns on Sunday are negative and statistically significant. On the other hand, stock returns of the last trading day are positive and also statistically significant. Days of the week do not seem to have any persistent trend with respect to the stock returns in Boursa Kuwait.

Table 3: Results of Regressing Daily Returns on Week Days

Dep. Variable	Sun	Mon	Tue	Wed	Thur.
Index Value	-0.0025	0.006	0.06	0.052	0.0314
	(0.0312)	(0.335)	(0.2251)	(0.443)	(0.0411)

Previous research has also show how investors can rush decisions on the last trading day of the week resulting in price increases which would naturally lead to corrections following the weekend. Conversely, as suggested Lakonishok and Maberly (1990), suggest that investors use time over the weekends to study data and may therefore have delayed decision making, waiting until the beginning of the week to make trades.

The January Effect

It has been documented in the literature that returns in January can be considerably higher than returns in other months, especially for small stocks. Gultekin and Gultekin (1983) noted the existence of the effect primarily in developed markets

This study also examines January seasonal in Boursa Kuwait. The main acceptable justification for the January effect (tax-selling hypothesis) doesn't apply in Kuwait since the economy is tax-free.

Table (4) shows two types of tests regarding the January effect. First is investigating the average returns of both January and other months. The results show that January returns are positive and statistically significant, whilst the other months returns seem to have insignificant returns trend.

Table 4: Monthly Mean Returns

	Boursa Kuwait Index
January	2.03 (0.046)
All Months	1.25 (0.329)
Mean Difference	0.006 (.253)

Conclusion

This paper investigates the stock returns of Boursa Kuwait for the past 6 years using daily returns to explore the existence of return anomalies.

The results support the idea that Sunday returns are negative and statistically significant, while those of Thursday (the last trading day of the week) are positive. The results are robust for the methodology employed and all results conform to those found in international stock markets. The results also show that the January Effect exists as the stock return in January in Boursa Kuwait appear to be positive.

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