UK REITs Don't Like Mondays

by
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Introduction:

Market commentators note that certain days-of-the-week perform better than others. Such assertions are also confirmed in a number of academic studies.

These somewhat irregular patters of abnormal stock returns are known as 'Calendar Anomalies'

The most documented calendar anomaly is the 'day-of-the-week' effect, which has become a subject of extensive research in stock markets.

In the listed real estate market there are only a few studies of the day-of-the-week effect and they generally are focused on listed Real Estate Investment Trusts (REITs) especially in the US.

Introduction

Cho et al. (2007) provided four explanations for the expected difference in returns across days of the week:

(1) data-snooping;

(2) market microstructure;

(3) micro and macro information flows; and

(4) the way market participants execute their trades.

None of which provide a thorough explanation for the day-of-the-week anomaly.

Introduction

Although REIT structures vary across the world, they generally allow for the company to avoid paying income tax in exchange for distributing most, if not all, of its income to shareholders through dividend payments and have restrictions on their trading and development activities.

In contrast, REOCs, like any other company, are subject to income tax but are unrestricted in their ability to trade and develop assets.

As such the results of previous REIT studies may not apply to REOCs. Yet as far as the authors are aware, no study has examined the day of the week affect in REOCs and REITs in the UK.

This study therefore contributes the previous literature by examining the day of the week affect in the UK using both REIT and REOC index data.

Data:

The current study uses EPRA/NAREIT UK Index daily closing values and its two sub-indices:

1. FTSE EPRA/NAREIT UK REITs and
2. Non-REITs Indices.

The EPRA/NAREIT UK Index data from 01 January 1990 - 27 May 2014. While, both FTSE EPRA/NAREIT UK REITs and Non-REITs Indices are only available from 02 January 2007 as the UK REIT market only started on 1st January 2007 when eight REOCs converted to REITs.

The sub-indices comprise 15 companies each.

The total market capitalisation of REITs based index is £35,706m and it is £7,886m of Non-REITs index.

Data:
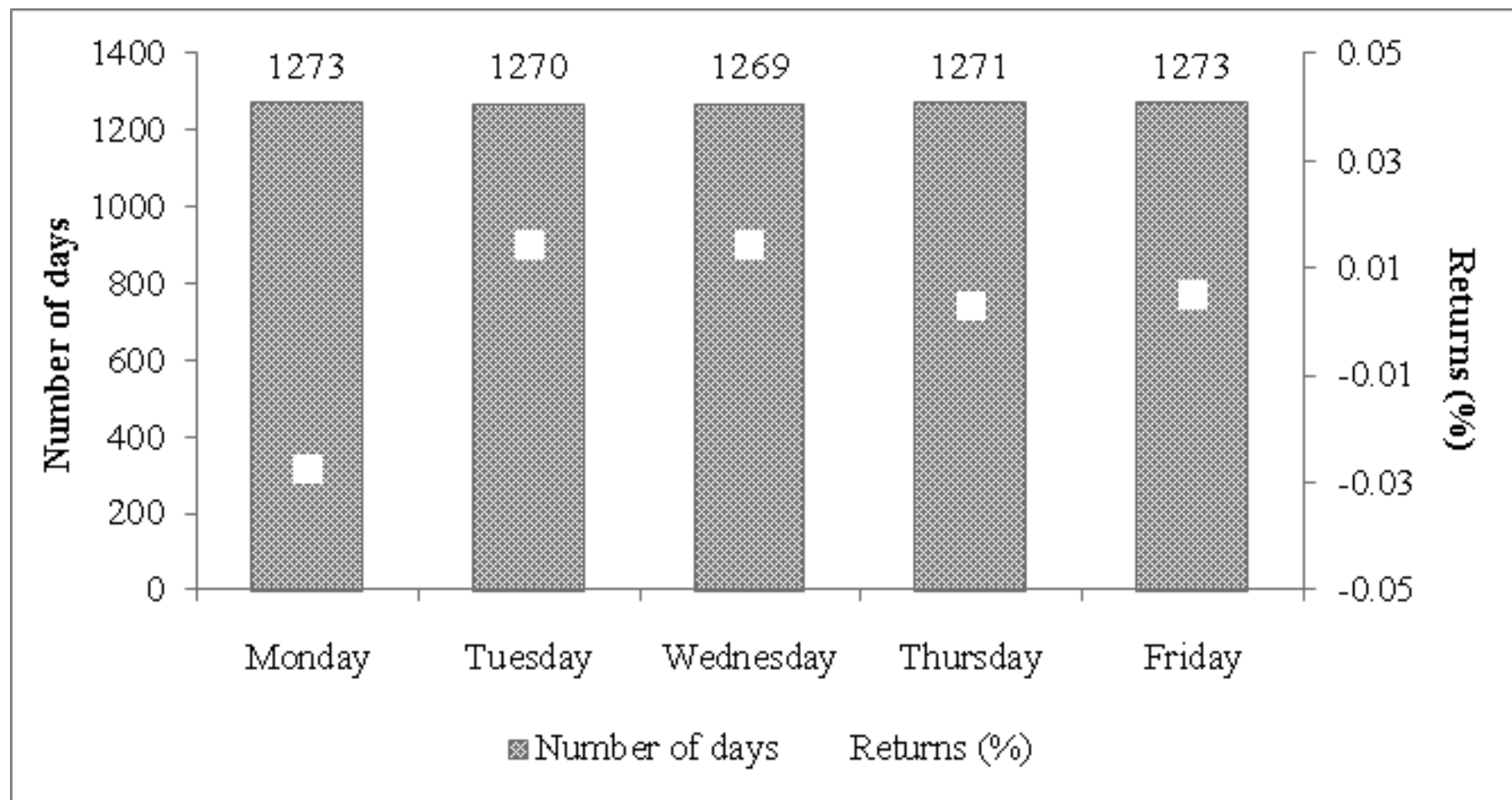
Methodology:

The study employs a multi strand approach to examine day-of-the-week effect in more detail.

Non-parametric: Kruskal-Wallis test

$$H_0: \pi_1 = \pi_2 = \pi_3 = \pi_4 = \pi_5$$
$$H_1: Not\ all\ \pi_i \text{ are equal}$$

Parametric Dummy Regression

$$R_t = \alpha_1 + \alpha_2 D_{2,t} + \alpha_3 D_{3,t} + \alpha_4 D_{4,t} + \alpha_5 D_{5,t} + \varepsilon_t$$

Where D_2 to D_5 denote dummy variables for Tuesday to Friday. The constant parameter α_1 is the average return for Monday. If returns for each day of the year are the same, the parameters α_2 to α_5 should be jointly insignificant.

Non Parametric Results:

Period	Start	End	Trading days	Returns (%)	Std. Dev.	KW
EPRA/NAREIT UK						
Total	01/01/1990	27/05/2014	6355	0.002	0.487	0.575
Pre 2007	01/01/1990	29/12/2006	4429	0.009	0.403	0.998
Post 2007	02/01/2007	27/05/2014	1926	-0.015	0.764	0.151
EPRA/NAREIT UK REITs						
Post 2007	03/01/2007	27/05/2014	1925	-0.015	0.813	0.084
EPRA/NAREIT UK Non-REITs						
Post 2007	03/01/2007	27/05/2014	1925	-0.017	0.693	0.447

Initial Results:

Regression estimates	EPRA/NAREIT UK			EPRA/NAREIT UK REITs	EPRA/NAREIT UK Non-REITs
	Total	Pre 2007	Post 2007	Post 2007	Post 2007
Monday	-0.028	0.003	-0.097	-0.112	-0.052
	(0.057)	(0.841)	(0.010*)	(0.005*)	(0.141)
Tuesday	0.042	0.004	0.128	0.154	0.061
	(0.047*)	(0.810)	(0.023*)	(0.011*)	(0.238)
Wednesday	0.042	0.011	0.113	0.128	0.037
	(0.050*)	(0.561)	(0.040*)	(0.030*)	(0.436)
Thursday	0.031	0.012	0.074	0.089	0.031
	(0.156)	(0.539)	(0.179)	(0.137)	(0.517)
Friday	0.033	0.005	0.096	0.115	0.047
	(0.111)	(0.805)	(0.061)	(0.033)	(0.374)
B-G test	11.974*	16.184*	2.065	1.498	1.264
	(0.0005)	(0.0001)	(0.151)	(0.221)	(0.261)

NB: Probability is in parentheses, * significant at 5% level

Modified Results:

Regression estimates	Series		
	EPRA/NAREIT UK	EPRA/NAREIT UK REITs	EPRA/NAREIT UK Non-REITs
Monday	-0.028	-0.105	-0.047
	(0.068)	(0.011*)	(0.179)
Tuesday	0.039	0.139	0.046
	(0.070)	(0.021*)	(0.361)
Wednesday	0.040	0.116	0.026
	(0.070)	(0.054)	(0.582)
Thursday	0.031	0.084	0.026
	(0.165)	(0.166)	(0.583)
Friday	0.031	0.111	0.035
	(0.130)	(0.043*)	(0.504)
(D)Mon.	-2.200	-2.039	-2.759
	(0.000*)	(0.000*)	(0.000*)
(D)Tues.	3.064	3.025	2.916
	(0.000*)	(0.000*)	(0.000*)
(D)Wed.	1.943	1.936	2.060
	(0.000*)	(0.000*)	(0.000*)
D(hol)	0.030	-0.050	0.015
	(0.448)	(0.673*)	(0.849)
AR(1)	0.045		0.028
	(0.052)		(0.473)
B-G test	0.000	2.080	0.308
	(0.992)	(0.149)	(0.579)

NB: Probability is in parentheses, * significant at 5% level

Can we trade on the inefficiency: NO
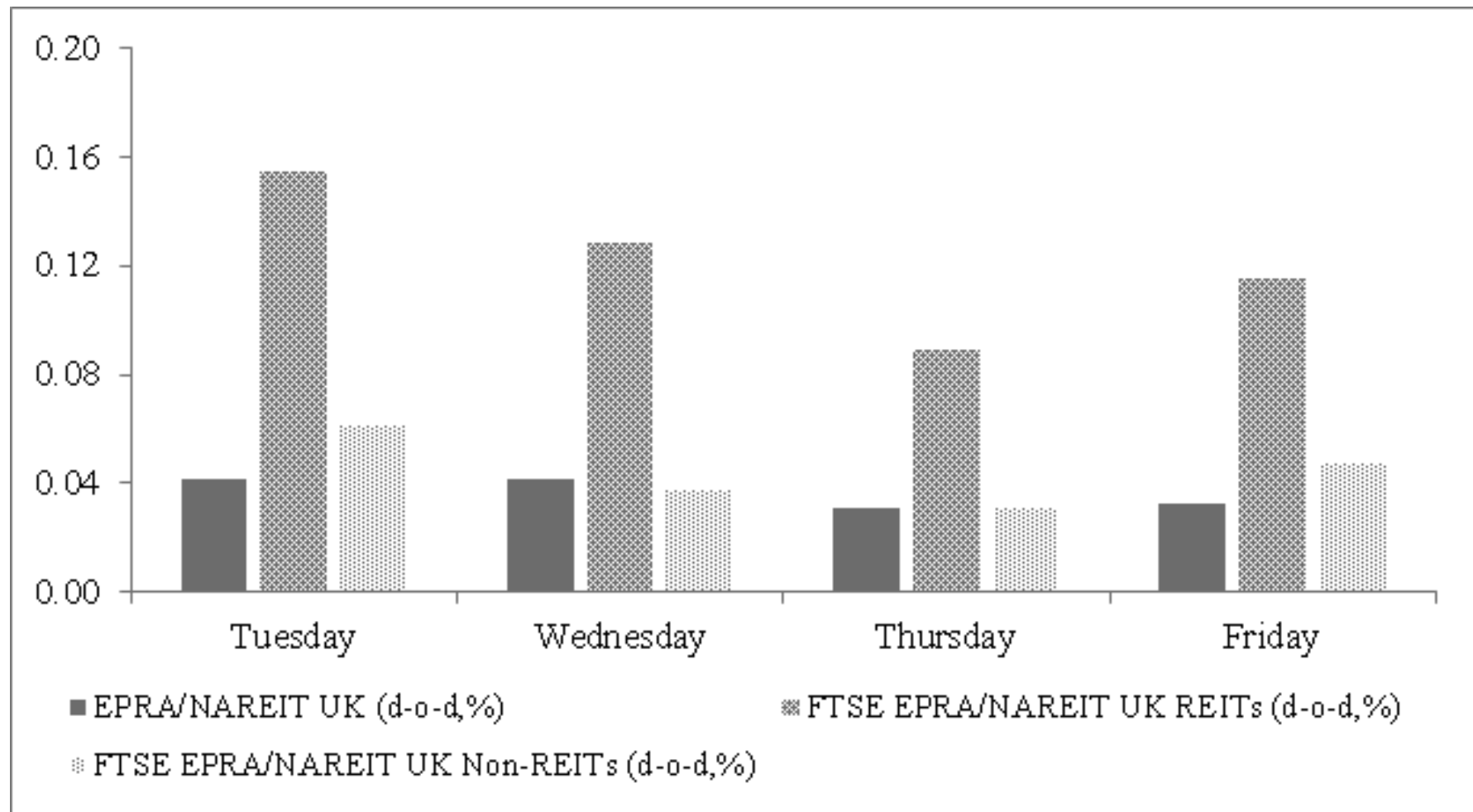
Conclusion:

The KW test do not reject the hypothesis that all the daily returns are the same

The regression estimates however were different.

The study provided evidence of a day-of-the-week effect in UK REITs.

Although day-of-the-week effect was not evident in non-REITs series.

The results of this research support the idea that return anomalies exist in the UK REITs.

Taken together, it can be suggested that inefficiencies are present in the UK REITs market.

However, the results show it would be uneconomic to be used as a trading strategy

Tell me Why

REITs Don't Like Mondays?

Any Questions?