STOCK MARKET SEASONALITY AND CHINESE NEW YEAR EFFECTS IN THE FAR EASTERN MARKETS[1]

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ABSTRACT

Analyses of the so-called January effect and Chinese New Year (CNY) effect in the stock markets in Malaysia, Singapore, Hong Kong and Thailand were carried out in this paper. It was found that the January effect was strong only in Hong Kong and Singapore. Returns were found to be highly significant in February and December in Malaysia. In Thailand, no month showed any different returns from the others. With regards to the CNY effect, three markets which have a large Chinese involvement showed significant positive returns surrounding the celebration. In Malaysia, the effect was especially more pronounced five days after the market was open following the CNY holidays. Daily returns 40 days preceding the CNY were also high. The CNY effect was also observed in Singapore and Hong Kong, especially prior to the festive season. The rally started as early as 40 days before the celebration. Lastly, there was no CNY effect in Thailand. One obvious reason is that this market does not have many Chinese investors. Based on the results, the paper argues that high returns in January were due mostly to the CNY rally.

INTRODUCTION

Stock market seasonality has been widely documented in the U.S. and other markets. Numerous studies have established that returns are different across the year. In particular, January has been found to consistently yield the highest return compared to the other months in most markets (e.g. Rozeff and Kinney, 1976; Keim, 1983; Reinganum, 1983; and for more recent evidence see Haugen and Jorion, 1996; and Baker and Limmack, 1998). The same phenomenon is generally observed in the Far-eastern countries, which in many aspects have different economic, institutional and cultural settings from the western, established markets (e.g. Gultekin and Gultekin, 1983; Ho, 1990; Lee, 1992; and Chan *et al.*, 1996). This phenomenon, popularly termed the January effect, is a subject of immense interest since it may provide another evidence which may violate the weakest form of the Efficient Market Hypothesis.

This paper will seek to add new evidence of stock market seasonality, and in particular, the January effect, in the Far-eastern markets by employing returns data from four markets in the region. These are the Kuala Lumpur Stock Exchange of Malaysia (KLSE), Stock Exchange of Singapore (SES), Stock Exchange of Hong Kong (SEHK), and Stock Exchange of Thailand (SET). In addition, the paper will also investigate a phenomenon peculiar to some markets in this part of the world, namely the Chinese New Year Effect. This refers to the tendency of stock prices to rise around the Chinese New Year (CNY). As it is observed normally in January and February, it would be interesting to see if there is a link between CNY effects and high returns in January.

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MARKET SEASONALITY – SOME BRIEF BACKGROUND

The well-known January effect needs no introduction. Numerous studies already contain lengthy discussions about it. The tax-loss selling hypothesis is widely used to explain abnormally high returns in January in the US market. The argument is that, investors will sell losing stocks in December, depressing their prices at year-end, and then buy them back in January. Buying pressure will increase prices in the month, and thus their returns (Dyll, 1977). Other explanations to the January effects are time-variation in risk premia (Tinic and West, 1984; Ritter and Chopra, 1989), small firm effect (Keim, 1983; Reinganum, 1983), and low share price effect (Bhardwaj and Brooks, 1992).

The Chinese New Year (CNY) effect, however, may be quite unfamiliar to some market participants, especially those from Western countries. Like the Gregorian or Western calendar, the Chinese calendar is a 12-month calendar year. However, it is not fixed. The calendar is based on a lunar year of about 50.5 weeks, with a 'leap' year of 55 weeks every three years to keep it in step with the Gregorian calendar which is based on the solar year. The first day of the year occurs on the first moon in January or February. Table 1 gives the date of the first day of the Chinese New Year (CNY) from 1970 to 1996 in the Gregorian calendar. As can be seen, the first day of the new year is mostly observed in the month of February. Between the period 1975 - 1996, the CNY is in February for 15 out of 21 years. Even when it falls in January, it tends to be in the last week of that month.

In countries where the Chinese are quite dominant, such as Malaysia, the Chinese New Year is celebrated on a grand scale. It is not only celebrated by the Chinese, but also by the other ethnic groups. It is customary for the Chinese to give 'Ang Pows' (normally in cash) as gifts to friends and relatives which range from a few to several thousands Malaysian Ringgit during this festive season. The first two days are declared as national holidays by the Federal Government. Like Government offices and other corporations, the Kuala Lumpur Stock Exchange is closed for trading for two days.

The interest in studies on the CNY effect began at the turn of this decade. The idea to study the effect of such cultural and country specific events may stem from the findings of returns seasonality documented much earlier in western markets, such as the January effect. It may also be due to the claims in Wachtel (1942) that festive seasons such as Christmas and New Year will bring cheer and new hope. Such psychological attributes may provide an alternative, non-economic explanation to stock market seasonalities.

Yong (1989), who investigates seasonality in the KLSE, observes that monthly returns are highest in January. However, December and February are not far behind. Rejecting any explanation based on tax-related trading, he attributes this seasonality to the celebration of the CNY in Malaysia. The giving of 'Ang Pows' requires some cash. One way of generating cash, according to the author, is by speculating in the stock market. He suggests that investors start to enter the market as early as December. As more investors enter the market, prices are driven up. Once the festive season is over, i.e., in February, these speculators move out from the market, leading to a decrease in prices. This suggestion is in fact consistent with Wong *et al.* (1990), who claim that share prices start to rise as early as two months prior to the CNY, though others such as Chan *et al.* (1996) and Ho (1990), also observe that several days after celebration, prices are still high.

Therefore, it seems that the CNY rally takes place about two months prior to the celebration, and continues up to several days after the new year. In the Gregorian calendar term, it means that the period will include the last weeks of December and the first two or three weeks of February, depending on the date of the CNY in the Gregorian calendar. For example, if the CNY falls in the middle of February, then the rally may start as early as the beginning of the third week of December, and finish by the end of the third week of February. Since there is an overlap here between the possible January and CNY effects, it would be very interesting to see if there is a link between them, or whether one is really a manifestation of the other.

It is expected that three of the markets in this study, which have a preponderance of Chinese investors, i.e., Malaysia, Singapore and Hong Kong, will show some indications of the CNY effect. However, this is not the case for Thailand. Though there is a sizeable number of them, the Chinese are not the dominant group of investors in Thailand. Even the CNY is not generally proclaimed as an official holiday in Thailand, unlike the other markets above.

Table 1: First day of CNY in the Gregorian calendar (1975 - 1996)

Year	Dates in Gregorian Calendar
1975	11th February
1976	31st January
1977	18th February
1978	7th February
1979	28th January
1980	16th February
1981	5th February
1982	23rd January
1983	12th February
1984	1st February
1985	20th February
1986	7th February
1987	29th January
1988	16th February
1989	6th February
1990	29th January
1991	14th February
1992	4th February
1993	22nd January
1994	9th February
1995	30th January
1996	19th February

DATA AND METHODOLOGY

To investigate stock market seasonality, we employ the main index of each country's common stocks. These are the Kuala Lumpur Composite Price Index for Malaysia, SES-All Share Index for Singapore, Hang Seng Price Index for Hong Kong, and SET Price Index for Thailand.

Returns are obtained from *Datastream*, which records the daily value of the indices as far back as follows; KLSE from January 1980, SES from January 1986, SEHK from January 1975, and SET from January 1976. To maximise the number of observations, therefore, the period of study will start from the above starting dates as recorded in *Datastream* up to December 1996. In addition, the study period for each of the indices (except for the Singapore's SES) will also be partitioned into two sub-periods; i) from respective starting dates above to December 1986, and ii) from January 1988 to December 1996. The main reason behind this partition of periods is to avoid any effect of the worldwide October 1987 crash. Besides, stock markets in Asia generally grew very rapidly starting in the late 1980s, after a long period of stagnancy in the late 1970s and early 1980s. It is therefore appropriate to see if seasonal patterns exist in periods of stagnancy and in periods of rapid growth. For SES, due to shorter data availability period, only two periods will be looked at; the whole period of 1986-1996, and the (post October 1987 crash) period of 1988-1996.

Monthly returns data are derived from the logarithmic daily returns, computed as follows;

$$R_{I,d} = \ln\left[\frac{I_d}{I_{d-1}}\right] \qquad (1)$$

where $R_{I,d}$ is the return of the index at day d, I_d is the index value at day d, and I_{d-1} is the index value at day d-1. The daily returns are then cumulated to obtain the monthly returns, $R_{I,m}$.

To determine whether any seasonal pattern exists, both the parametric (ANOVA) and non-parametric (Kruskal-Wallis test) will be employed. The F-statistics obtained from ANOVA will be used to test the null hypothesis that there is no difference in mean monthly returns, while the non-parametric Kruskal-Wallis statistics test the null hypothesis that there is no difference in median monthly returns of the indices.

To check on the normality of the distribution of the market logarithmic returns, some descriptive statistics of the markets, including the skewness and kurtosis, are given in Table 2. It appears that all four markets tend to have negative skewness. However, only SEHK returns show pronounced skewness. The skewness of KLSE returns are not as pronounced as that of the SEHK. For SES and SET, the normality of their returns cannot be rejected. The returns on each of the markets also tend to be more fat-tailed than would be expected from a normal distribution, as implied by the positive kurtosis values. This indicates that the distribution of returns tends to have more extreme observations, and this is especially true for SEHK. Overall, it is fairly safe to claim that the distribution of returns of most of the markets does not depart excessively from normality. To back up the results from the parametric tests, the non-parametric Kruskal-Wallis test will also be given.

Table 2: Descriptive statistics of daily market logarithmic returns

	KLSE	SES	SEHK	SET
Mean	0.00040	0.00029	0.00077	0.00042
Std. Dev.	0.01345	0.00989	0.01725	0.01251
Minimun	-0.17067	-0.09403	-0.40542	-0.09295
Maximum	0.11062	0.14313	0.14763	0.10349
Kurtosis	18.35651	28.31860	65.90470	11.00077
Skewness	-1.36556	-0.18815	-3.06607	-0.36277
No. of observations	4434	2868	5738	5479

Once the overall differences of monthly returns are determined, further tests are employed to examine whether returns in any particular month are different from other months. This will be achieved by using two dummy-variable regressions. These regressions, however, will be carried out using the returns from the whole period only. The first regression will test whether returns in the month with the highest returns are significantly higher than the returns in each of the other months. Since the January effect is tested here, it is presupposed that this is the month of January. The regression, therefore, takes the following form;

$$R_t = a + b_1 Feb + b_2 Mar + \ldots\ldots\ldots\ldots + b_{11} Dec + e_t \qquad (2)$$

where R = the returns for each of the month of the indices;
Feb = a dummy variable, which equals 1 for February observation, and 0 elsewhere;
Mar = a dummy variable, which equal 1 for March observation, and 0 elsewhere;
.....;
a = the intercept term, which indicates the expected value R for January;
$b_1 \ldots b_{11}$ = the coefficient for February ..... December, which measures the difference between February .....December returns and January returns;
e = the error term, which follows the usual OLS assumption.

In cases where January is not the month with the highest return, the equation above should be adjusted accordingly. The second regression will examine if returns in that particular month are significantly higher than for the other months combined, and is given below;

$$R_t = f_0 + f_1 Jan + e_t \qquad (3)$$

where R = the mean monthly returns of the indices;
Jan = the dummy variable, which is equal to 1 for observations in January and 0 otherwise;
ϕ_0 = the intercept term, which measures the mean returns for the eleven months excluding January;
ϕ_1 = the coefficient for January, which measures the difference between the mean returns in January and the other eleven months of the year;
e_t = the random error term which follows the usual OLS assumptions.

Again, if January is not the month with the highest returns, the dummy in (3) will be the month with the highest returns.

To test for the Chinese New Year (CNY) effect, the appropriate 'event window' surrounding the first day of the celebration is first defined. Several previous studies use different 'windows'. Ho (1990) looks at the returns during the nine trading days before and nine trading days after the first month of the CNY. Chan *et al.* (1996) examine the behaviour of returns in the six days surrounding the celebration, i.e., three days preceeding the CNY and three days after it. Wong *et al.* (1990), investigating the CNY effect in Malaysia, claim that the CNY rally starts two months prior to the first month of the new year. All of these studies indeed find the existence of the CNY effect.

Taking the above studies into consideration, this study will define the 'window' as two months prior to the first day of the CNY, and one week after it. To be exact, 40 daily returns preceding the CNY will be examined since a period of two months will have about 40 trading days. As for returns after the celebration, they will be examined for the first five days of trading, as all these markets have five trading days in a week. The average daily returns of both periods will be compared separately to the average daily returns for the rest of the year excluding those two periods, to determine whether the CNY effect is indeed real.

RESULTS

Table 2 shows the percentage monthly returns on each of the indices under study. It also gives the results of the ANOVA and Kruskal-Wallis test. For the whole period, i.e., the first panel under each country headings, returns are highest in the month of December in the KLSE, SES and SET. This is quite surprising as no study has found similar results. Only the SEHK shows the highest returns in January, which is consistent with studies like Gultekin and Gultekin (1983), Lee (1992), and Ho (1990). It should be noted, however, that though previous studies do not find December to yield the highest returns in Malaysia, Singapore and Thailand, they report that the month usually ranks among the highest in generating returns (see for example, Yong, 1989; Ho, 1990; and Chan *et al.* 1996).

Looking more closely at the KLSE, December yields an average 3.9% return in the period between January 1980 to December 1996. The second highest return is observed in February, whose average return is 3.5%. At the 0.05 level, the returns in these two months are significantly different from zero. Similar observations can be seen for the sub-period 1988-96. Monthly returns of 5.7% and 4.1% respectively for December and February rank the highest in the period. The table also reveals that overall, there is no significant difference between monthly returns, as reflected by the *F*-value and Kruskal-Wallis statistics. In sub-period 1980-86, October yields the highest returns, but none of the months is actually different from zero.

In the SET, December (2.9% and 6.0% respectively) is the month with the highest returns in the whole period and sub-period 1988-96, while October (4.3%) occupies the top spot in the sub-period 1976-86. However, all these are not significantly different from zero. The *F*-statistics and the Kruskal-Wallis statistics also reveal that there is no difference in the monthly returns. Like the KLSE, therefore, there is no January effect in the SET.

Some mild January effect can be observed in Singapore and Hong Kong. In the SES, the average January return of 3.1% is the third highest in the year after December, which yields an average return of 3.5%. The other month with a return statistically different from zero is May (3.4%). The sub-period 1988-96 reveals very similar results, whereby January yields a returns of 3.4%. In fact, the Kruskal-Wallis statistics (p-value = 0.049) suggest that monthly returns are different in this sub-period.

Table 2: Average percentage returns on country common stock indices by month of year

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	All Month
							Malaysia						
KLSE Composite Index (1980-96)													
mean	0.014	0.035*	-0.012	0.033	0.028	0.011	-0.005	-0.026	-0.005	0.002	-0.009	0.039*	0.009
s.d	0.079	0.074	0.056	0.074	0.060	0.062	0.077	0.098	0.064	0.136	0.072	0.073	0.080
obs.	17	17	17	17	17	17	17	17	17	17	17	17	204
F (*p*-val)													1.22 (0.278)
KW (*p*-val)													14.74(0.101)
KLSE Composite Index (1980-86)													
mean	0.023	0.010	-0.023	0.025	0.016	0.015	-0.047	-0.025	-0.003	0.033	-0.006	0.011	0.002
s.d	0.084	0.087	0.037	0.075	0.059	0.059	0.096	0.129	0.063	0.110	0.095	0.059	0.083
obs.	7	7	7	7	7	7	7	7	7	7	7	7	84
F (*p*-val)													0.55 (0.865)
KW (*p*-val)													5.41 (0.909)
KLSE Composite Index (1988-96)													
mean	-0.002	0.041*	-0.001	0.029	0.028	0.008	0.017	-0.026	-0.003	0.025	0.000	0.057*	0.014*
s.d	0.078	0.051	0.070	0.074	0.059	0.042	0.042	0.081	0.072	0.057	0.049	0.083	0.065
obs.	9	9	9	9	9	9	9	9	9	9	9	9	108
F (*p*-val)													1.12 (0.355)
KW (*p*-val)													9.83 (0.546)
							Thailand						
SET Price Index (1976-96)													
mean	0.016	0.004	-0.001	0.003	0.019	0.019	0.018	0.006	0.003	0.011	-0.017	0.029	0.009
s.d	0.072	0.060	0.061	0.068	0.065	0.052	0.061	0.088	0.089	0.133	0.066	0.078	0.076
obs.	21	21	21	21	21	21	21	21	21	21	21	21	252
F (*p*-val)													0.49 (0.907)
KW (*p*-val)													7.06 (0.794)

Table 2 (continued)

SET Price Index (1976-86)													
mean	0.002	-0.007	-0.009	-0.012	0.001	0.008	0.022	0.020	0.009	0.043	-0.002	0.008	0.007
s.d	0.054	0.019	0.048	0.076	0.030	0.035	0.044	0.075	0.034	0.094	0.042	0.046	0.054
obs.	11	11	11	11	11	11	11	11	11	11	11	11	132
F (*p*-val)													0.92 (0.520)
KW (*p*-val)													5.52 (0.90)
SET Price Index (1988-96)													
mean	0.033	0.019	0.000	0.013	0.034	0.022	0.000	-0.013	-0.025	0.011	-0.032	0.060	0.010
s.d	0.094	0.091	0.072	0.056	0.091	0.064	0.071	0.107	0.113	0.123	0.090	0.102	0.090
obs.	9	9	9	9	9	9	9	9	9	9	9	9	108
F (*p*-val)													0.74 (0.701)
KW (*p*-val)													7.24 (0.090)
						Singapore							
SES All-Share Index (1986-96)													
mean	0.031*	0.021	-0.031	0.019	0.034*	0.003	0.005	-0.017	-0.016	-0.025	0.001	0.035*	0.007
s.d	0.048	0.056	0.045	0.045	0.032	0.050	0.040	0.084	0.050	0.113	0.050	0.040	0.060
obs	11	11	11	11	11	11	11	11	11	11	11	11	121
F (*p*-val)													1.45 (0.159)
KW (*p*-val)													17.62 0.093)
SES All-Share Index (1988-96)													
mean	0.034*	0.014	-0.009	0.020	0.026*	-0.010	0.002	-0.028	-0.015	0.011	0.001	0.041*	0.007
s.d	0.049	0.055	0.049	0.043	0.030	0.041	0.037	0.086	0.055	0.035	0.043	0.042	0.051
obs	9	9	9	9	9	9	9	9	9	9	9	9	108
F (*p*-val)													1.63 (0.103)
KW (*p*-val)													19.84(0.049)

Table 2 (continued)

Table 2 (continued)

						Hong Kong							
Hang Seng Price Index (1975-96)													
mean	0.062*	0.025	-0.013	0.036*	0.020	0.010	0.025	-0.001	-0.016	0.017	-0.006	0.044*	0.017*
s.d	0.092	0.074	0.065	0.058	0.081	0.082	0.069	0.074	0.104	0.155	0.091	0.072	0.089
obs.	22	22	22	22	22	22	22	22	22	22	22	22	264
F(*p*-val)													1.59 (0.103)
KW (*p*-val)													17.32(0.101)
Hang Seng Price Index (1975-86)													
mean	0.089*	0.009	-0.019	0.057*	0.001	0.031	0.014	0.006	-0.040	0.033	0.002	0.049*	0.019*
s.d	0.098	0.074	0.071	0.062	0.083	0.081	0.078	0.085	0.127	0.101	0.115	0.060	0.091
obs.	12	12	12	12	12	12	12	12	12	12	12	12	144
F(*p*-val)													1.89 (0.046)
KW (*p*-val)													16.91 (0.113)
Hang Seng Price Index (1988-96)													
mean	0.034	0.036	-0.001	0.013	0.037	-0.028	0.032	-0.015	0.004	0.061*	-0.011	0.034	0.016*
s.d	0.078	0.073	0.058	0.043	0.079	0.075	0.057	0.063	0.062	0.065	0.058	0.091	0.069
obs.	8	8	8	8	8	8	8	8	8	8	8	8	96
F(*p*-val)													1.37 (0.199)
KW (*p*-val)													14.44 (0.211)

Notes:

s.d. stands for standard deviation.

obs. stands for number of observations.

F refers to the *F*-statistics which test the null hypothesis that all the monthly returns are equal to each other.

The asterisk * indicates significant at 0.05 level of the *t*-statistics for testing the mean return is equal to zero.

In Hong Kong, the January effect is most pronounced. For the whole period of 1975-96, the Hang Seng Index yields an average January return of 6.2%, followed by December (4.4%) and April (3.6%). January also ranks the highest in the 1975-86 sub-period, followed by April and December with a return of 8.9%, 5.7% and 4.9% respectively. This finding is consistent with Ho (1990), and Cheung, Ho and Wong (1994). Furthermore, higher returns in the months of January and April may be due to the close relation between the markets in Hong Kong and the UK, which also has higher returns in those months (see for example, Levis, 1985; Reinganum and Shapiro, 1987; Corhay, Hawawini and Michel, 1987). Not only that there is the same tax year-end in Hong Kong and the UK, but there are also 19 stocks of the 33-stock Hang Seng Index which are listed in the London Stock Exchange (LSE). The influence of the LSE, may thus contribute to the higher returns in those months. It should also be noted that since the return preceding April, i.e., March, is always negative, we can suggest that the tax-loss selling by foreign investors may be possible here. In the sub-period 1988-96, October has the highest return of 6.1% which is significantly different from zero at the 0.05 level. In all three periods, however, the *F*-value and Kruskal-Wallis statistics indicate that overall, there is no difference in the monthly returns.

Table 3 gives the results of the dummy-variable regression in equation (2), which tests whether the month with the highest returns has a significantly higher mean returns than each of the other months. This means that we are testing whether December has significantly higher returns than the returns in each of the other months in Malaysia, Singapore and Thailand. For Hong Kong, the return in January is compared with the returns in the other months to determine whether it is significantly higher. The slope coefficients (b_1, b_2, ..., b_{11}) are expected to be less than zero. A one-tailed test is therefore appropriate. The Durbin-Watson statistics are also calculated to check whether there is any serial correlation in the residuals of the regressions. The results are presented in the last row of Table 3.

As can be seen, the mean December return is significantly higher than March and November in the KLSE, while in the SET, the month is only significantly higher than November at the 0.05 level. In the SES, the December effect is more pronounced. Its return is significantly higher than those of the other four months, namely March, August, September and October. In Hong Kong, the mean January return is significantly higher than these for March and September. It is also significantly higher than those for June, August, October and November at the 0.05 level. The January effect is therefore very pronounced in Hong Kong. With regards to serial correlation in the residuals of the regressions, the Durbin-Watson statistics indicate that generally, there is no significant serial correlation present in the residuals of the regressions.

The results for the second regression (equation (3)) are summarised in Table 4. The regression is used to test whether December in the case of Malaysia, Singapore and Thailand, and January in the case of Hong Kong, have returns significantly higher than the average returns of the other eleven months. Again, a one-tailed test is appropriate with the expectation that the slope coefficient (f_1) is greater than zero. From the table, it is clear that the mean returns in December are not statistically different than the average returns of the other months in Malaysia and Thailand. In Singapore, however, the *t*-statistic of 1.69 indicates that the mean December return is significantly higher at the 0.05 level than the average return of the other months. Lastly, in Hong Kong, the return in January is significantly higher than the average return in the other months ($t = 2.53$).

Table 3: Test of equal returns in month with the highest return and in each of the other months for market indices

$R_t = a + b_1Feb + b_2Mar + \ldots\ldots\ldots + b_{11}Dec + e$

Month	Malaysia	Thailand	Singapore	Hong Kong
January	-0.0248 (-0.91)	-0.0130 (-0.54)	-0.0047 (-0.19)	———
February	-0.0038 (-0.14)	-0.0244 (-1.02)	-0.0145 (-0.58)	-0.0377 (-1.42)
March	-0.0509 (-1.86)*	-0.0290 (-1.22)	-0.0481 (-1.93)*	-0.0755 (-2.84)*
April	-0.0062 (-0.23)	-0.0254 (-1.07)	-0.0167 (-0.67)	-0.0266 (-1.00)
May	-0.0110 (-0.40)	-0.0100 (-0.42)	-0.0017 (-0.07)	-0.0425 (-1.60)
June	-0.0279 (-1.02)	-0.0101 (-0.43)	-0.0321 (-1.29)	-0.0527 (-1.98)*
July	-0.0440 (-1.61)	-0.0112 (-0.47)	-0.0300 (-1.20)	-0.0376 (-1.41)
August	-0.0655 (-2.39)*	-0.0224 (-0.94)	-0.0521 (-2.09)*	-0.0633 (-2.38)*
September	-0.0440 (-1.61)	-0.0259 (-1.09)	-0.0515 (-2.07)*	-0.0786 (-2.96)*
October	-0.0376 (-1.37)	-0.0182 (-0.76)	-0.0604 (-2.42)*	-0.0450 (-1.69)*
November	-0.0480 (-1.75)*	-0.0454 (-1.90)*	-0.0340 (-1.36)	-0.0685 (-2.57)*
December	———	———	———	-0.0187 (-0.70)
D-W	1.79	1.76	1.72	1.88

Notes:

For Malaysia, Thailand and Singapore, the month with the highest returns is December, while for Hong Kong, the month is January. The equation above should thus be adjusted accordingly for Malaysia, Thailand and Singapore.

t-statistics are in parentheses. The critical value of the *t*-statistics above is -1.65, at the 0.05 significant level, using a one-tailed test.

D-W is Durbin-Watson statistics which test the autocorrelation in the residuals of the regression above.

* indicates significant at the 0.05 level.

Table 4: Test of equal returns in month with the highest return and in the other months of the year combined

$R_t = f_0 + f_1Jan + e_t$

Market	'Best' Month[a] Vs. Rest of Year	
	f_1	*t*-statistic
Malaysia	0.0331	1.63
Thailand	0.0214	1.23
Singapore	0.0314	1.69*
Hong Kong	0.0497	2.53*

Notes:

For Malaysia, Thailand and Singapore, the 'best' month (i.e., the month with the highest returns) is December, while for Hong Kong the best month is January. The equation above should be adjusted accordingly for Malaysia, Thailand and Singapore.

* indicates significant at 0.05 level, using a one-tailed test.

Table 5 summarises the results of the analysis of the CNY in the markets. It seems quite clear that three of the markets which have a large number of Chinese investors, i.e., Malaysia, Singapore and Hong Kong, show signs of the CNY effect. In Malaysia, the average returns 40 days prior to the CNY are higher than the average daily returns for the whole year excluding those 40 days and 5 days after the celebration. This is consistent with Wong *et al.* (1990), who find that the CNY rally starts two months before the new year. On average, an investor will earn 0.1% daily during these 40 days. At 0.05 level, this is significant. The return after the CNY is even higher. The daily average of those five days is 0.45% ($t = 2.33$) and is statistically higher than the average for the whole year. In Singapore and Hong Kong, returns are significantly higher 40 days preceding the first day of the CNY. On average, daily returns are 0.14% ($t = 2.61$) and 0.23% ($t = 3.20$) in Singapore and Hong Kong respectively during this period. However, unlike in Malaysia, though returns are higher than the year's average 5 days after the CNY, it is not significant in Singapore. A different result is found in Hong Kong. Investors actually earn a negative return of 0.11% daily 5 days after the celebration when trading resumes. Not surprisingly, no significant CNY effect is observed in Thailand . This is consistent with Chan *et al.* (1996) who find a very weak CNY effect in the market, but significant evidence for the markets in Malaysia and Singapore. Although returns are higher surrounding this festive season, they are not statistically different from the returns of the rest of the year. One obvious explanation for the absence of such effect here is that the Chinese are not the dominant investors in the SET. In addition, the CNY is not declared as an official holiday in Thailand.

Table 5: The Chinese New Year effect

Country	N	A	B	C
Malaysia (1981-96)	16	0.00015	0.00104	0.00454
Std. dev.		0.00118	0.00213	0.00736
t-statistics			1.95*	2.23*
Singapore (1987-96)	10	0.00013	0.00142	0.00255
Std. dev.		0.00090	0.00126	0.00504
t-statistics			2.61*	1.44
Hong Kong (1976-96)	21	0.00045	0.00228	-0.00108
Std. dev.		0.00120	0.00263	0.00849
t-statistics			3.20*	-0.77
Thailand (1977-96)	20	0.00039	0.00114	0.00149
Std. dev.		0.00128	0.00219	0.00622
t-statistics			1.58	0.74

Notes:

N = number of observations.

A = average daily returns for the whole year, excluding 40 days prior to and 5 days after the first day of the CNY.

B = average daily returns 40 days prior to the CNY.

-C = average daily returns 5 days after the CNY.

t-statistics test the null hypotheses that H_0: A = B and H_0: A = C, against the alternative hypotheses H_1 : B > A and H_1: C > A respectively.

* indicates significant at 0.05 level, using a one-tailed test.

DISCUSSION

Can we claim that there is a January effect in these Far-Eastern markets? Definitely the results indicate that there is no January effect in Malaysia and Thailand. Returns in January in these two markets are not significantly different from zero. However, the markets in Singapore and especially Hong Kong seem to show that investors could reap high returns in January. Does this mean that January effects are indeed real in these two markets, and if so, what explains it? If the tax-loss selling hypothesis is true, then it will not be surprising to see high returns in January. Unfortunately, tax-loss trading could not be relevant here as there is no capital gain tax arising from stock transactions in both markets. Furthermore, high December returns would also cause the argument of tax-loss selling to collapse. The presence of many foreigners especially from the US in SES and SEHK might help explain, to some extent, the relevance of tax-loss selling hypothesis here, and thus high returns in January. However, unless we know for sure the profile of foreign investors and their trading patterns in the markets, we cannot confirm this hypothesis.

Whatever the argument is, one fact is observed in the paper. Returns are higher surrounding the CNY in the KLSE, SES and SEHK, i.e., 40 days prior to and 5 days after the celebration. As the window of the event include the months of January and December, it could be possible that high returns in January in Hong Kong and Singapore are due to the 'good mood' brought about by this kind of festive season, as argued by Wachtel (1942). Investors might enter the market as early as December to speculate and leave the market some days after the celebration (Yong, 1989). And in fact, the results are consistent with Wong *et al.* (1990) who claim that the CNY rally start as early as two months before the new year. Another explanation to support the CNY effect argument for the high returns observed in December, January and February is the absence of high returns surrounding the celebration in Thailand. As explained earlier, unlike the markets of KLSE, SES and SEHK, the SET does not see the dominance of Chinese investors, and hence the CNY effect, and unsurprisingly, therefore, the January effect.

CONCLUSION

This paper concludes that the Chinese New Year effect plays a very important role in explaining the high returns surrounding the turn-of-the Western year in Chinese-dominated markets of KLSE, SES and SEHK. The observed high returns in the month of January in SES and SEHK, and to some extent KLSE, could not be explained by the tax-loss selling hypothesis. The most probable explanation is that they are part of the rally of the CNY celebration. This is supported by the findings in Thailand's SET, whereby there are no significant high returns in January simply because there is no CNY effect there.

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