

The January Effect on Stock Market

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Abstract:

The paper uses Regression model to find the January impact on the Karachi stock market (KSE). I obtained the daily data of the past three years 2011, 2012 and 2013. However, it is also worth mentioning that Karachi stock market is a high tricky market in the month of January. The effect of January on KSE market on mean return is scrutinized by including a Dummy variable in the regression model. It is observed that the KSE market is insignificant in the month of January. In the light of the participated observation, it is concluded that "Karachi Stock Exchange shows no significant changes in the month of January".

Key words: Karachi Stock market, January Effect, regression model

Introduction

Over the last quarter of the century many security market anomalies have been documented or recorded for financial markets across the world; one of the most prevailing of these anomalies appear to be a January effect, where the returns are much higher as compared with other months. Some of these anomalies have existed for over half a century (Lakonishok and

Smidt, 1988 and Arsal and Coutts, 1997) and consequently have led some financial economists to question the notion of market efficiency. Lakonishok and Smidt (1988) suggest that doubt pertaining security price anomalies is likely to persist until confirmatory evidence is provided from various data sets over different time periods. It is in essence that the results of contemporary research are reported that there was no change in daily returns on Karachi stock market. Moreover, as Bowers and Dimson (1988) suggested, international comparisons enable researchers to test whether factors which are supposedly important in one specific economy are also important in other economies.

The main purpose to conduct this study is to find the evidence whether the month of January is impacting the stock market in the same way as the rest of months. In addition, we also find the other months impact on stock market which shall help to find the desired result more adequate.

The present study attempts to investigate whether the month of January is impacting the Karachi stock market.

The body of the paper is organized as follows: The following section conducts a literature review. The second section briefly describes that the data collected from KSE all share index and report their summary's statistics and are followed by discussions on the observed results. To find the evidence of January effect on KSE all share index we analyze the data by using of Regression with the help of e-Views. In the next section the table is showing the result; this is followed by the discussion on table and results and also by the interpretation of the observed results. A summary of our main results with some concluding remarks are also included in this paper in the continuing section as implication, followed by conclusion and limitation and possible future research.

Literature Review

The objective of the paper is to test the existence of January

effects in the rates of return of common stocks. The existence of the month effect is one of the most unusual practical results. It indicates us that the distribution of common stock return is not alike across all trading days in week or months in a year. There are two major effects for two major anomalies related to month, month-of-the-year and turn-of-the-month, and the January effect is one of the most prominent of calendar anomalies. Rozeff and Kinney (1976), in the 1970s, documented that January had higher return in stock market in comparison with other calendar months. They reported that from 1904 to 1974 the average return in January for an equal weighted index of NSK (New York Stock Exchange) is statistically significantly higher than the other months. Gultekin & Gultekin (1983) show unusual positive January common stock returns in 16 (sixteen) countries. In 1990, six out of eight emerging Asian Pacific stock markets reveal significantly higher returns on daily base in January than in other calendar months. De Bondt and Thaler (1985) found that the firms which had been the best reputed or big losers over a 5 year period afterward have surplus returns, and the losers have positive excess returns. Concentrated on the month of January, it is excess return. Jeffrey Hirsch, after studying the data of previous 38 years from 1947 to 2012, found that a small-cap portfolio stocks was low in mid of the month December (52 week) portfolio of small-cap stocks hitting the 52-week lows in mid-December outperform the Index by an average of 9.5% points (*not annualized!*) per year between late December and the January period.

Haugen & Jorion (1996) observed that there is the constant prevalence of the January effect. They result out that the January effect remains till it is eminent for a credibly long time and therefore, should have departed. Furthermore, they point out that the January effect is stronger in case of small firms than in case of well established companies with high capitalization. They concluded that, “The January effect is still going constantly stronger later than 17 years it’s discovery”

(Haugen and Jorion, 1996, 27).” Kato and Schallheim (1985) provided the international evidence for the January effect. So I conclude that the most confusing empirical findings are that the monthly stock return varies by the month January than the other months. The January effect refers to the fact that there is higher average share market returns in January when compared with other months. The literature on January effect confirmed higher returns in the month of January.

Data and Summary Statistics

Data used in this paper consists of daily closing price data on the KSE All Share Index from 31 December 2010 to 31 December 2013. In addition, data is collected from KSE All Share Index instead of 100 Index of Karachi stock exchange. To determine the January effect on KSE we used the equation as below:

$$Y = \alpha + \beta \text{Dummy (January)} + \varepsilon$$

Where Dummy represents January and assumes the value of 1 for business days in January. This equation is for the easiest test to determine the January effect on stock market. To determine the change on stock market in the month of January we used the regression technique to analyze data.

The simple regression method is implemented on dummy variable and we have the dependent variable as daily returns and independent variable is dummy, assumed “1” in all business days as dummy variable to find the impact of dummy variable on daily returns of stock market with regression model for the month of January with rest of months.

Results:

In the light of the observed findings, through the dummy variables, it is extracted that there is no impact or change occurred in the month of January on Karachi stock market and

the returns persisted the same as compared to other months of calendar year in 2010, 2011 and 2012.

In this research, the findings lead to measure the change in KSE all share index while the month of January is the same like all the other months of the calendar year and no impact of January on KSE all share index is found in either single month of January compared with other months in the span of three aforementioned years.

The figures verifying the above quoted statement are described in the table shown below; the following table contains the monthly data of targeted three year to support the results of research work.

Dummy Variable (2011)				
Month	Coefficient	t- statistic	Prob.	R square
January	0.001562	0.002267	0.4913	0.001927
February	-0.004687	-1.929338	0.0478	0.015833
March	0.002573	1.161430	0.2466	0.005454
April	0.001350	0.595520	0.5520	0.001440
May	0.000523	0.235356	0.8141	0.00225
June	0.001577	0.710666	0.4780	0.002049
July	-0.001023	-0.451273	0.6522	0.000827
August	-0.004605	-2.046862	0.0417	0.016746
September	0.003467	1.501409	0.1345	0.009080
October	0.000649	0.279677	0.7800	0.000318
November	-0.001357	-0.571819	0.5680	0.001327
December	-0.000605	-0.260849	0.7944	0.000277
Dummy Variable (2012)				
Month	Coefficient	t- statistic	Prob.	R square
January	0.000429	0.275146	0.7834	0.000308
February	0.002516	0.001586	1.586804	0.1138
March	0.002084	1.312186	0.1907	0.006951
April	-0.000982	-0.616827	0.5379	0.001544
May	-0.002363	-1.521350	0.1295	0.009321
June	-0.001885	-1.185851	0.2368	0.005684
July	0.000918	0.588790	0.5565	0.001407
August	0.002516	1.586804	0.1138	0.010132
September	-0.001557	-0.934995	0.3507	0.003541
October	-0.000971	-0.563140	0.5739	0.001287
November	0.000918	0.576266	0.5650	0.001348
December	-0.00590	-0.362371	0.1714	0.000534
Dummy Variable (2013)				
Month	Coefficient	t- statistic	Prob.	R square

January	-0.000973	-0.497783	0.6191	0.001010
February	0.000393	0.1833355	0.8547	0.000137
March	-0.001830	-0.917860	0.3596	0.003427
April	0.000660	0.337514	0.7360	0.000465
May	0.004461	2.305691	0.0220	0.021238
June	-0.003278	-1.614022	0.1078	0.010521
July	0.002957	1.550134	0.1224	0.009713
August	-0.004144	-1.934538	0.0542	0.015045
September	-0.002577	-1.294651	0.1967	0.006795
October	0.000715	0.341939	0.7327	0.000477
November	0.002719	1.30515	0.1931	0.006904
December	-0.000113	-0.056679	0.9548	0.000013

Daily returns of KSE All Shares Index for the month January 2011, 2012 and 2013 respectively by putting dummy variable “1” and dummy variable “0” for rest of months of 2011, 2012 and 2013 are presented. Analyzing the data by applying the regression technique with the help of e-Views, and after analyzing the data, the results show insignificant values for the month of January 2011, 2012 and 2013.

Moreover, it also shows insignificant results for the rest of months except for May 2013. Additionally, the significant result has been founded in the month of July 2013, which shows the impact on daily returns of KSE all shares index as compared to other months in 2013.

The result is in accordance with extreme similarities of some previous international evidence that were documented for the various international stock markets. In 2000 Coutts & Sheikh also failed to find the evidence of significant result of changes on Stock market in their research.

Interpretation:

As it is founded that t-Statistic is less than 2 and Probability is greater than 0.5, it is measured that there is no evidence found for accounting any changes on Karachi stock market for the month of January.

It is observed that the daily returns are the same in January as in all other months of calendar year.

Implication:

There are some predictions that affect the stock market:

The major constraint of the January effect on KSE all share index is that in international stock market they get an extra advantage of December to boost their economy in several ways like a festival of charismas and the farewell of passing year. Visitors come across from different regions to celebrate, which essentially create a remarkable position for country's economy. Moreover their financial market remains closed for 10 to 15 days for the starting of the New Year. On opening, people get rush to purchase, borrow and invest, which consequently causes a stock market boom, because Pakistan is a Muslim country and people try to follow the Islamic calendar as the first month of Islamic calendar is "Muharram" so people are not interested to celebrate the new year celebration in January.

In Pakistan the majority of the population is not aware of the stock exchange so they are afraid to invest in stock market because the capital amount may be stolen by fraud or it may not gain as much as they predicted.

Political factors are also affecting stock exchange. Stock exchange purely depends upon country situation, political environment and government policy, infrastructure development etc. Political stability will create a good impact on an investor's priorities. Economic factors: interest, or inflation rate are important factors towards affecting stock market in a positive or negative way. If interest rate or inflation increase it has a bad impact on the stock market and vice versa. The same happens with gold when it moves up or the rupee price against dollar is moving down, then the stock market will react in a opposite direction. In order to sustain the position of stock market, the government must ensure such strategies which will create economic stability.

Furthermore, the continuous cause of stock exchange failure being considered the Islamic concept, most people follow

strictly in order to retain themselves from an unpredictable method of earning.

Local institutions and individual participation are generally more attracted towards those businesses that have cooperatively low taxes versus higher gain.

People are more interested to have money in hand rather than to invest in any stock market or invest in other businesses that have less taxation or tax free businesses because they want more profit.

Conclusion

Using the daily return data of All Share Index of Karachi stock exchange there is no evidence for the existence of the January effect in the All Share Index of Karachi Stock Exchange, over the three year period, 31 December 2010 through 31 December 2013. Further, I have found relative changes in the month of May 2013 in all share index of Karachi stock. This result is similar to previous international evidence documented from many other stock markets. In 2000 Coutts & Sheikh also failed to provide the evidence changes on Johannesburg Stock Exchange in their research, "The January effect and monthly seasonality in the All Gold Index on the Johannesburg Stock Exchange 1987-1997."

Limitation and future research

This paper has only obtained the daily return data of 3 years of KSE All Share Index. Collection of data of 10 to 15 years is time consuming. The data collection sources and budget resource was not enough, but in future I intend to collect the data of 5 to 10 years of Karachi stock exchange with new sources, and I will also try to find the impact by using the data of LSE and ISE to check the impact of January on stock markets and also to collect the daily return data of KSE 100 Index to examine the changes on KSE 100 Index only.

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