December Effect of Stock Market Return in Indonesia Stock Exchange 1998-2012

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Abstract: ***This Paper analyze of return with market anomaly in December effect in Indonesia Stock Exchange. Population to be studied is "Indeks Harga Saham Gabungan (IHSG)" or called ^JKSE. The time of data is monthly from 1998 until 2012. The method of analysis used descriptive statistics like average, mean, median, kurtosis and skewness. In this study we are finding that December is the best month for investor to buy stock in Indonesia Stock Exchange. The average of return in December is 5.21% the highest return and has lower risk -2.79% with deviation 4.74%.***

Keywords: December Effect, Indonesia Stock Exchange, January Effect, Monthly Effect

1. Introduction

Market efficiency survives the challenge from the literature on long-term return anomalies. Consistent with the market efficiency hypothesis that the anomalies are chance results, apparent over-reaction to information is about as common as under-reaction. And post-event continuation of pre-event abnormal returns is about as frequent as post-event reversal. Consistent with the market efficiency prediction that apparent anomalies can also be due to methodology, the anomalies are sensitive to the techniques used to measure them, and many disappear with reasonable changes in technique [6].

In the stock market has known January effect phenomenon. Unexplained where it shows an increase in the values of shares in January. This paper analyze about the phenomenon of month, especially December, the "December Effect" is also known as The Santa Claus rally. A Santa Claus rally is a rise in stock prices in the month of December, generally seen over the final week of trading prior to the New Year. The rally is generally attributed to anticipation of the January effect, an injection of additional funds into the market, and to additional trades which must, for accounting and tax reasons, be completed by the end of the year. Another reason for the rally may be fund managers "window dressing" their holdings with stocks that have performed well [13].

2. Literature Survey

1.1 The Indonesia Stock Exchange (IDX)

The Jakarta Stock Exchange (JSX) began as an Association of Stockholders in 1912. After being dormant for many years, it reopened in its present form in 1977. There is also a stock exchange in Surabaya, East Java, which is much less liquid than Jakarta and most companies prefer to list on the JSX. In March 1992, JSX was privatized and PT Bursa Efek Jakarta (BEJ) took over the day-to-day operations from Bapepam-LK. BEJ/JSX is a privately-owned limited company, whose shareholders are local stock broking firms. It holds the central record of share transactions, which are registered upon completion on the floor of the JSX.

1.2 Jakarta Futures Exchange (JFX)

Indonesia's first futures exchange, The Jakarta Futures Exchange (JFX), started trading in December 2000. JFX trades various commodities, indexes and foreign exchange futures products. Transactions are mainly dominated by Futures Contracts on commodities, such as Gold, Olein, etc. JFX has significantly increased its net income and daily trading during 2004. JFX introduced a remote trading system called JAFeTS (Jakarta Futures Electronic Trading System) in January 2006.

1.3 Surabaya Stock Exchange (SSX)

Most of the Indonesian corporate bonds are listed in the SSX. SSX provides Over-The-Counter facility and enables market participants to report their transactions. It provides market information and easy reference for market participants to conduct both corporate and government bond negotiation and transaction. An On-The-Counter Fixed Income Trading System (FITS) for corporate bonds trading has been utilized since mid of 2005. SSX also trades equities, but with less market activity than JSX.

In September 2007, Jakarta Stock Exchange and Surabaya Stock Exchange merged and named Indonesian Stock Exchange by Indonesian Minister of Finance. The current location of the Indonesian Stock Exchange is located in the IDX building in the Sudirman Central Business District, South Jakarta, near the current site of the Pacific Place Jakarta.

3. Previous Work

There are many studies that analyze the month of the year effect and other market anomalies. This section contain of previous literatures related to the month of the year effect.

Keong, Yat and Ling (2010) investigated the presence of the month of the year effect in eleven Asian countries: Hong Kong, India, Indonesia, Japan, Malaysia, Korea, Philippines, Singapore, Taiwan, China, and Thailand. Their finding exhibited a positive December effect, except for Hong Kong, Japan, Korea, and China. Also, few countries show a positive January, April, and May effect and only Indonesia exhibited negative August effect.

Marrett and Worthington (2011) examined the month of the year effect in the Australian stock market. Their finding that returns are significantly higher in April, July and December combined with evidence of a small cap effect with systematically higher returns in January, August and December. Similarly, Brown et al., (1983) and Praetz (1973) found that average returns in Australia stock market were higher in January, July and August Al-Jarrah, Khamees and Qteishat (2011) investigated the turn of the month anomaly in Amman stock exchange (ASE). Their findings show the ASE does not significantly exhibit higher rates of returns at the beginning of the month than during the remaining days of the month.

Rozeff and Kinney (1976) investigated the monthly effect of returns on the New York stock exchange using a sample covering the period from 1904 until 1974. Their findings indicate that returns in January were higher than any other month, except for the period from 1929 to 1940. They also found that July, November, and December produced the highest returns and February and June provide the lowest returns.

Asteriou and Kovetsos (2006) utilized data from 1991 until 2003 for eight Central and Eastern European stock markets. Their findings show a strong significant January effect presence in the stock markets of Hungry, Poland, Romania and Slovakia. Parikh (2009) used the GARCH model and exponential GARCH to examine the month of the year effect in the Indian stock market. The findings confirm the presence of a significant December effect even after taking time varying volatility into account. Kumari and Mahendra (2006) found that Indian stock market exhibited April effect and returns were significantly higher from other months. Giovanis (2009) examined the month of the year effect for fifty five stock markets using GARCH models. The results found a December effect in twenty stock markets followed by February effect in nine stock markets and January effect in seven stock markets and finally, April effects in six stock markets. These months provided positive and the highest returns. Maghayereh (2003) who found no evidence of monthly seasonality and January effect in ASE returns. On the other hand, Ariss, Rezvanian and Mehdian (2011) tested the calendar anomalies in the Gulf Cooperation Council (GCC) stock markets. They found that returns are positive and significant on Wednesday. In addition, their results show a significant positive December effect. Also, Wyème and Olfa (2011) examined the month of the year effect for Tunis Stock Exchange. Their findings show evidence of the month of the year effect specifically in April. Al-Khazali, Koumanakos, and Pyun (2010) found a strong day effect and weak week and January effects in Athens stock exchange. On the other hand, Floros (2008) used ordinary least squares (OLS) and found no January effect in Athens stock exchange. Dudzinska-Baryla and Michalska (2010) tested the month of the year effect in the Polish stock exchange and found the presence of April and December effects.

Onyuma (2009) examined the day of the week and the month of the year effects in the Kenyan stock market. He found that the largest positive returns are produced Friday and January, while Monday provided the lowest negative returns. On the other hand, Alagidede and Panagiotidis (2009) showed that Friday effect and April effect are found to be significant in Ghana stock exchange. Similarly, Agathee (2008) examined the month of the year effect for the stock exchange of Mauritius (SEM) using regression analysis. His findings indicate that, except for the month of January, returns are not dependent on the months of the year. On the other hand, Bundoo (2008) found that SEM exhibited a positive and significant Wednesday, Friday and Monday (smaller in magnitude) effects. He also found a significant positive September effect and no January effect.

Rezvanian, Turk and Mehdian (2008) analyzed the calendar anomalies in Chinese equity market. Their empirical results show the absence of Monday, day of the week, and January effects in all Chinese indices they studied, concluding that Chinese equity markets are efficient. Contrary results were obtained by Lingbo (2004) who empirically investigated the weekend effect, month of the year effect, and the week of the month effect in the Chinese equity fund market. The results show that average daily returns on Monday are higher, especially for open end funds than those of other days within the week. Also, the average monthly returns for closed ends funds reach the maximum and minimum in March and August respectively.

Fountas and Segredakis (2002) examined the January effect in eighteen emerging stock markets. They found that returns in January were significantly higher in stock markets of Chile, Greece, Korea, Taiwan, and Turkey. Choudhry (2001) examined the month of the year effect and January effect in the pre-WWI stock returns for Germany, the UK and the US utilizing a non-linear GARCH model. His results show evidence of the January effect and the month of the year effect on the UK and the US returns. On the other hand, the German returns exhibited the month of the year effect and no January effect.

Lakonishok and Smidt (1988) found evidence of anomalies related to returns around the turn of the week, the turn of the month and the turn of the year and holidays in the Dow Jones Industrial Average. On the other hand, the weekend affect only found in nine countries. In addition, many countries exhibited large December returns. Gultekin and Gultekin (1983) used parametric and non parametric tests for his sample and found seasonality presence in most industrialized countries. They also found that average returns in January were higher than those during the rest of the year.

Berges, McConnell and Schlarbaum (1983) examined the turn of the year effect in Canada stock market covering the period from 1951 to 1980. The results show that January returns in Canada were higher than other months even after introducing taxes on capital gains. Arsad and Coutts (1997) used a large sample of sixty years and found that London international stock exchange exhibited weekend, January, and holiday effects. Menyah (1999) also found that returns in January are higher in London stock exchange.

4. Methodology

This paper analyze the monthly Return of closing price to opening price of the Indonesia Stock Exchange (IDX) from January 1998 trough to December 2012, there are any 181 data to observations. First, we collect and grouping by the same month with different year, observe of Return close price to open price. Then calculating of negative and positive Return where negative are indicating losser month and positive are indicating winning month. We also calculate mean, maximum, minimum, average, standard deviation, skewness, and kurtosis of return every month. That indicated what the best month and the worst month for doing investment.

5. Data and Empirical Result

Figure 1: Chart Of Indonesia Stock Exchange (IDX) 1998 trough 2012

Table 1: Analysis descriptive statistics of Indonesia Stock Exchange Monthly Return: January 1998-December 2012

	Return (%)					
	Jan	Feb	March	April	May	June
Max	20.85	2.83	12.24	25.81	18.18	13.21
Min	-8.24	-9.46	-10.69	-15.28	-13.76	-4.86
Mean	3.03	0.02	3.43	6.49	0.45	3.20
Average	2.51	-0.57	2.68	4.41	0.91	3.41
Standard deviation	8.47	3.25	6.64	11.36	9.55	5.33
kurtosis	0.26	2.98	-0.24	-0.44	-1.04	-0.04
skewness	0.76	-1.53	-0.48	0.08	0.20	0.42

	Return (%)					
	July	Aug	Sept	Oct	Nov	Dec
Max	14.62	5.80	13.62	11.70	28.24	16.06
Min	-10.48	-28.92	-19.27	-28.88	-3.12	-2.79
Mean	4.17	-4.16	4.90	3.31	-0.16	4.89
Average	2.88	-4.18	-0.30	0.33	3.50	5.21
Standard deviation	6.80	8.14	10.30	10.05	8.34	4.74
kurtosis	-0.01	6.08	-1.06	4.62	5.16	0.88
skewness	-0.53	-2.07	-0.38	-1.93	2.15	0.79

6. Summary and Conclusion

We founded that December is the best month, average of return this month is the highest 5.21% with low risk where indicated with standard deviation 4.74% and low losses at -2.79%. Kurtosis 0.88% and skewness 0.79% told that December is closer to mean 4.89%. Mean in December is positive and highest. We conclusion are The December Effect causing positive return in Indonesia Stock Exchange. Investor is very likely to buy stock in December to get the positive return.

7. Future Scope

In the future we suggest studying and analyzing with different session like pre crisis and crisis session. Also can be study with daily or weekly data.

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