

# Domestic Foreign Exchange Market Reaction on Indonesian Presidential Elections in 2004, 2009 and 2014

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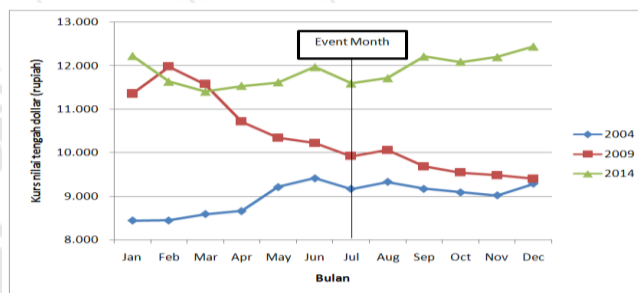
**Abstract:** *The foreign exchange market has an important role in the Indonesian economy and trading as the institution that manage the international funds transfers. Transfer of funds involving transactions between two or more states in a trade will cause movements or fluctuations in the state's currency against the currencies of other states as the results. Fluctuations in the value of a state's currency against the currencies of other states could be caused by extreme events. Those events are the variety of extreme economic issues and politics, such as the presidential election event. The purpose of this research is to analyze the existence of abnormal returns on foreign exchange-related events of the presidential elections in 2014; and to analyze the differences in return for foreign currency before and after the presidential elections of 2014. The results showed that there are differences in the average of the abnormal return before and after the presidential elections in the Indonesian foreign exchange market, especially for the foreign exchange of Singaporean dollar and the United States dollar. The political events of presidential election, based on the results obtained in this research, have the tendency to influence the foreign exchange market in Indonesia. Foreign currencies are stable and did not have a significant effect in the face of presidential election events; one of those foreign currencies is European's EURO.*

**Keywords:** foreign exchange market, foreign exchange, presidential election, average abnormal return

## 1. Introduction

Foreign exchange market has an important role for Indonesian economy and trade since the activities of exporting and importing used foreign currencies as their main currency for payments. Transfer of funds involving transactions between two or more states in a trading will make movements or fluctuations in the state's currency against the currencies of other states as the results. Fluctuations in the value of a state's currency against the currencies of other states could be caused by extreme events. Those events are the variety of extreme economic issues and politics, such as the presidential election event. Indonesian presidential election events that held with a democratic system is one of the events that has the greatest influence on the foreign exchange market movements. The concept of efficiency could be related with the foreign exchange market when all the available informations are reflected the exchange rates, in which the investors cannot gain abnormal returns [6].

Central Statistics Agency recorded economic growth in the first quarter of 2014 grew by 5.12%. Furthermore, based on the data obtained from Bank Indonesia (BI), there was a development of exchange value against the US dollar from the Indonesian rupiah throughout the 2004, 2009, and 2014's presidential elections, respectively, in the month where the event is held (Figure 1). It shows that Indonesian foreign exchange market is still able to provide an opportunity for investors to get returns. Increased return is the beneficial advantages that the investors targeted when they invests their money in the foreign exchange market, despite for its uncertainty, especially in period of the presidential election event.



**Figure 1:** The development of the exchange rate against the US dollar from the Indonesian rupiah in the 2004, 2009, and 2014

Source: Processed from Bank Indonesia

Foreign exchange market transactions in Indonesia have a different volume of trade. It can be seen from the Indonesian export and import transactions against the states in the Table 1. The import transactions in 2009 and 2014, can be seen in the Table 1.

**Table 1:** The value of imports based on the currency in 2009 and 2014

No	Currency	Year (USD)	
		2009	2014
1	USD	74,959,700	92,449,150
2	JPY	3,786,321	5,164,735
3	EUR	3,080,727	6,380,789
4	SGD	1,576,100	3,253,955
5	AUD	508,122	633,549
6	MYR	313,347	436,924

Source: Bank Indonesia

The highest import values are the US dollar currency in 2009 or 2014. The imports value of other currencies that active in the imports are the Japanese Yen, European Euro and Singaporean dollar. The export transactions based on the

currency in 2009 and 2014 are shown in the Table 2.

**Table 2:** The value of exports based on the currency in 2009 and 2014

No	Currency	Year (USD)	
		2009	2014
1	USD	111,694,065	164,185,024
2	EUR	1,779,324	2,043,437
3	SGD	1,638,348	2,003,010
4	JPY	1,489,930	1,372,999
5	CNY	-	1,015,236
6	AUD	187,525	174,028

Source: Bank Indonesia

The greatest export activity based on the currency are the US dollar in 2009 or 2014. The other currencies that active in the export are European EURO, Singaporean dollar, and Japanese Yen. Chinese yen in 2009 did not that active in the export activity, while Australian dollar is not very active either in 2009 or 2014. Based on the above explanation, the main study of this research is to test and to analyze the differences of return for foreign currency before and after the presidential elections in 2004, 2009, and 2014. The results of this study is expected to give suggestions for investors for investing in the Indonesian foreign exchange market.

## 2. Review of Related Literature

Foreign currency is a currency that functioned as a means of payment to finance transactions International financial economics and also has records on the central bank's official rate [7]. The foreign exchange market is a market that facilitates the exchange of foreign currency to a domestic currency of a state to ease the trading transactions and international finance [13].

Event study is a study of the market reaction to an event where an information is published as an announcement. In addition, the event study also can be used to test the content of the information or the announcement of an event. If an event or an announcement contains an information, the market will react when the announcement was welcomed by the market [10]. The market reaction indicated by the changes in the price of the concerned securities. This reaction is typically measured by using the concept of abnormal return [17].

The researcher will conducts an event study for the paired T-test sample to look for the abnormal returns in the stock market in the period of the presidential election [3] [7]. Investors buying and selling exchange rate influenced the future trend [10]. Political news convey important informations about investment climate of a state that led to the various currency exchange rate. It shows that Indonesian foreign exchange market is still able to provide an opportunity for investors to get returns. Leblang and William (2006), researched about 25 political election events in the world using the GARCH method. They found 14 political elections did not affect the increasing of the exchange rate volatility, but 11 political elections had an effect in the increasing of the exchange rate volatility [12].

## 3. Research Methods

### 3.1 Data Types and Sources

The secondary data used in this stage is the daily middle exchange rate data obtained from Bank Indonesia. The observational period in this research is the period of Indonesian presidential election in 2004, 2009, and 2014. The objects of this study are the abnormal return of foreign exchanges.

### 3.2 Data Analysis

The data processing technique and analysis are conducted in several stages. The first stage is to analyze the abnormal return by determining the event window. The date of the presidential election used in this research are: the presidential election on July 5, 2004; September 20, 2004; July 8, 2009; and July 9, 2014. The event date in which the presidential election day takes place is denoted by  $t=0$ . The estimated duration of period used in this research is 90 days. The test is conducted on 5 event windows, namely  $(-30,+30)$ ,  $(-15,+15)$ ,  $(-10,+10)$ ,  $(-7,+7)$ , and  $(-5,+5)$ .

The formula used to calculate the normal or actual return is as follows [9]:

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}} \quad (1)$$

Explanation:

- $R_{it}$  = actual return of the foreign exchange i on day t
- $P_{it}$  = actual return of the foreign exchange i on day t
- $P_{it-1}$  = actual return of the foreign exchange i on day t

Expected return is calculated by computing the past return on foreign exchange, the specific formula used is the moving average method as follows [16]:

$$E(R_{i,t}) = \frac{1}{n} \sum_{i=0}^{n-1} R_{it} \quad (2)$$

Explanation :

- $E(R_{i,t})$  = the expected return i on day t
- $\sum_{i=0}^{n-1} R_{it}$  = number of actual return during the event period
- n = number of the actual return during the event's moving average

To calculate the normal return, the formula used is as follows [3]:

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) \quad (3)$$

Explanation:

- $AR_{i,t}$  = the abnormal return of foreign exchange i on day t
- $R_{i,t}$  = the actual return of foreign exchange i on day t
- $E(R_{i,t})$  = the expected return i on day t

To calculate the average abnormal return, the formula used is as follows [2]:

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{it} \quad (4)$$

Explanation:

ARR<sub>t</sub> = the average abnormal return

$\sum_{i=1}^N AR_{it}$  = the number of the abnormal return during the event period

N = the number of the event

A difference test is used to find out whether there is an abnormal return or not in this event study research. It used SPSS 16 software on confidence interval 95% (alpha=5%) to find out the possible significant abnormal return.

#### 4. Results

The values of average abnormal return (AAR) in the testing of each currency pairs at the time of the events before and after the presidential election are different. The test results of AAR-related presidential election events on July 5, 2004 are described in the following table (Table 3):

**Table 3:** The test results paired t-test with the average abnormal return before and after the July 5, 2004 presidential election

Foreign Exchange	Event Window				
	I	II	III	IV	V
1. Singaporean dollar	+	TB	+	TB	TB
2. European EURO	+	TB	+	TB	TB
3. US dollar	+	TB	+	+	TB
4. Japanese Yen	+	TB	+	TB	TB

Information:

Positive mark (+) shows the significant difference between the before and after the presidential election period in the form of positive sentiment.

Negative mark (-) shows the significant difference between the before and after the presidential election period in the form of negative sentiment.

TB shows there is no significant differences founded before and after the presidential election period.

Event windows I, II, III, IV, V = event windows (-30,+ 30), (-15,+ 15), (-10, + 10), (-7, + 7), (-5, +5)

Based on Table 3 above, it is known that the US dollar experienced a real difference AAR before and after the presidential elections period, significantly in the third type of the event windows in the form of positive sentiment, while the Singaporean dollar, European Euro, and Japanese Yen only had two significant event windows, i.e. the (-30, +30) and (-10, + 10) event windows. In the event window (-15, + 15) and (-7, + 7), all foreign currencies did not indicates a difference results before and after the presidential election period. The foreign exchange of Singaporean dollar, European Euro, US dollar and Japanese yen showed significant differences before and after the presidential election period and the AAR in the event window (-30, +30) and (-10, + 10) are in the form of positive sentiment. In the first round of the presidential election events, the foreign exchange market reacted positively to the information. The test results of AAR-related presidential election events on July 5, 2004 are described in the following table (Table 4):

**Table 4:** The test results paired the t-test average abnormal return before and after the September 20, 2004 presidential election.

Foreign Exchange	Event Window				
	I	II	III	IV	V
1. Singaporean dollar	+	-	-	-	-
2. European EURO	TB	+	-	TB	TB
3. US dollar	+	TB	-	TB	TB
4. Japanese Yen	+	+	-	TB	-

Based on Table 4, at the foreign exchange of the Singaporean dollar, a significant differences in the average abnormal return before and after the presidential election period of 20 September 2004 is founded throughout the event windows. As for the two foreign currencies, namely European Euro and the US dollar, there are two significantly different event window before and after the presidential election periods, while the Japanese yen had three-event window that significantly different before and after the presidential election period. The event window (-30, + 30) of the Singaporean dollar, US dollar and Japanese yen's foreign exchange showed a significant difference before and after the presidential elections in the form of positive sentiment, while in the event window (-10, + 10) it showed a negative sentiment before and after the presidential elections for the fourth foreign exchanges. It is addressing that the market is susceptible to the information before and after the presidential elections in the form of negative sentiment. It could be caused because the investors taking precaution and choosing to wait and see the result of the presidential election [15]. The test results of AAR-related presidential election events on July 5, 2004 are described in the following table (Table 5):

**Table 5:** The test results paired the t-test average abnormal return before and after the presidential election of July 5, 2004

Foreign Exchange	Event Window				
	I	II	III	IV	V
1. Singaporean dollar	TB	+	-	+	-
2. European EURO	TB	+	TB	TB	TB
3. US dollar	+	+	-	+	TB
4. Japanese Yen	-	+	-	TB	TB

Based on Table 5 is known that there are significant differences in the average abnormal return before and after the presidential election of 2009 that occurred in the four-event windows of the Singapore dollar and the US dollar's foreign exchange, three-event windows for the Japanese yen, and one event window for the European EURO. The fourth event window (-15, + 15) of all the foreign currencies showed significant differences before and after the presidential elections period in the form of positive sentiment, while in the event window (-10, + 10), three foreign currencies, namely the Singapore dollar, the US dollar and Japanese Yen showed significant differences before and after the presidential elections period in the form of negative sentiment. A significant difference in the AAR before and after the election is caused by the negative sentiment of the three foreign currencies against the presidential election of July 8, 2009, as the result of the social and political conditions of Indonesia that is still unstable after the election finished. The results of this

research are contradict the ones that conducted by Andriana and Ivan [1] who did not find any differences before and after the presidential election period. The test results of AAR-related presidential election events on July 5, 2004 are described in the following table (Table 6):

**Table 6:** The test results paired the t-test average abnormal return before and after the presidential election of July 9, 2004

Foreign Exchange	Event Window				
	I	II	III	IV	V
1. Singaporean dollar	+	-	-	-	-
2. European EURO	+	+	TB	-	TB
3. US dollar	+	+	TB	-	TB
4. Japanese Yen	+	TB	TB	-	TB

Based on the Table 6 above, the foreign exchange of the Singapore dollar experienced a real significant difference to the average abnormal return before and after the events of the presidential election on the fifth event window period of observation. The real differences in the four event window in the form of negative sentiment as the responds to such information is not good unless the event window (-30, + 30) is in the form of negative sentiment. The results of the different test pairs of average abnormal return of the European EURO and the US dollar foreign currency before and after the presidential election of July 9, 2014 showed that there are real significant differences happened at the event window (-30, + 30), (-15, + 15), and (- 7 + 7); whereas, in the event window (-10, + 10) and (-5, + 5) there are no apparent significant differences founded before and after the presidential election period. Japanese yen addressing significant difference in the event window (-30, + 30) in the form of positive sentiment and event window (-7, + 7) in the form of negative sentiment. Abnormal return occurred in a state of uncertainty [14].

## 5. Conclusion and Suggestion

### 5.1 Conclusion

The results of average abnormal return before and after presidential election showed that it affects the returns of foreign exchange in Indonesia with a different response among foreign exchange. Political factors had a relative effect on Singapore dollar and US dollar but did not have a real effect for the foreign exchange of European EURO.

### 5.2 Suggestion

Investors can choose to invest in foreign exchange market of European EURO as the foreign exchange that is least affected by its own abnormal returns in the face of presidential election events. The foreign exchanges that are affected more by the presidential election are the Singaporean dollar and the US dollar.

The further researchs regarding this topic are recommended to use the mean-adjusted model to look at the foreign exchange market movements that related to the events of the presidential election and to conduct some research on the variety of other non-economic events that related to politics

to examine the information content and to see its reaction for the foreign exchange market.

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