# FOREIGN EXCHANGE IN ASEAN: PREDICTION OF FUTURE SPOT RATE

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**Abstract:** The purpose of this research is to analyze the effect of Spot Rate and Forward Rate affects Future Spot Rate at foreign exchange market in Asean. The variables used in this study are spot, forward and future spot. This research used data from Bank Indonesia for spot rate in the period of January-March 2013 and future spot rate in the period of April-June 2013. The Forward rate is from www.forexpros.com in the period of January-March 2013. Based on the result of Regression Estimation applied in hypothesis on foreign currencies exchange which done simultaneously are proven able to predict future spot. The investor and international economic actor could use spot exchange rate and forward exchange rate as a short terms predictor for the next trimester in 2013.

***Keyword*** **: spot rate, forward rate, future spot and market efficient**

## 1. Introduction

Foreign exchange activity related to the development of international trade and the increasing movement of money and international capital. International economic development is rapidly increasing cause of economic relations between countries will be interlinked and lead to increased trade flows of goods and money and capital between countries. Changes in macro indicators in other countries, will indirectly impact on the indicators of a country. Multinational companies that has a cross-border transactions is necessary foresee foreign exchange rates, because the company's operations are affected by changes in exchange rates. Each state imposes a fixed exchange rate of its currency against the US Dollar. Since then the economies of Europe and America began to grow rapidly. More than, the Euro Dollar market and Asian Currency Unit is to offset the circulation of the US dollar increasingly numerous. Symptoms strengthening of the US dollar in early 2013 triggered by the European Central Bank policy (European Central Bank) to stop the interest rate up to 0.5%. In addition, due to the strengthening Dollar also fundamental performance of the American economy beginning in 2013 experienced a positive change, in which the higher capital flows back into the American country is around USD $ 10 trillion.

Economy in developed countries the United States and Europe, in addition to affecting the world economy, it is also strongly influenced by the economic conditions in developing countries in the ASEAN. Sukirno (2004), the higher of economic growth (relative to other countries), the

greater of ability to import and led to the demand for foreign exchange is likely to increase due to foreign exchange needed for payments abroad (imports). Foreign exchange market is a dynamic market, where prices are constantly changing to reflect changes in supply and demand (Faisal, 2001)

Indonesia, Philippines and Thailand are major countries in the ASEAN region which recorded lower economic growth in 2013, while Malaysia, Singapore and Vietnam are the main countries that managed to record better economic growth. States that the rate of growth experienced the most significant decline in 2013 was Thailand (2.2% to 1.3%), Philippines (7.5% to 7.0%) and Indonesia (5.8% to 5.6%). Meanwhile, the main countries in the ASEAN region showed improved economic growth are Singapore (3.8% to 5.1%), Malaysia (4.4% to 5.0%) and Vietnam (5.0% to 5.5% ).

Analysis of exchange rate movements to predict future prices, Fama (1984) on the financial market, in the development of analysis is applied also in commodity markets are known in two models hypothesis that raises research gap, the expectation theory of forward that the forward rate will reflect the exchange rate expectations in the future. Another approach is to state that the spot price will describe the information that determines the future exchange rate. Chiang (1986) proved that the spot rate and the forward exchange rate empirically significant in predicting future spot rates (future spot). Buser (1996) "Adjusted Forward Rates as Predictors of Future Spot Rates", saying that the forward rate is not a predictor of the future spot. Wesso (1999), proving that the forward price significantly positive effect on the price of futures, which through arbitration activities carried out by market participants, forward rate reflect the expectation that determine the futures exchange rate.

Dewi (2007), using regression analysis and F test that empirical evidence shows spot rates positively and significantly was the best predictor for future spots. Kumar (2007), with significant research conducted Dewi, where the forward exchange rate is the best predictor in making a prediction of the future spot rate. Reichling (2011) prove that the forward exchange rate is not significant in predicting future spot in the future.

Based on the problems that have been described can be formulated problems in this study as follows:

1. What is the spot rate and the forward rate in the first quarter of 2013 partially influential in predicting Future Spot the second quarter of 2013?
2. What is the Spot Rate and Forward Rate in the first quarter of 2013 simultaneously influential in predicting Future Spot the second quarter of 2013?

## 2 Theory and Hypothesis

### 2.1. Foreign Exchange Market

The foreign exchange market is a market or a place where individuals, various multinational companies and banks hold a sale and purchase of various currencies from different countries or foreign exchange. The function of Foreign exchange markets is as a place to transfer the purchasing power of a country and currency, to the state and other currencies. Foreign exchange transactions conducted to reduce the risk and also seek short-term gains from foreign exchange. Exchange rate or the exchange rate is defined as the price of foreign currency in the domestic currency price of a unit (Salvatore, 1997).

## 2.2. Spot Rate

The spot rate (the spot exchange rate) is the nominal exchange rate of the day / foreign currency exchange rates against certain domestic currency in the event of a transaction. Spot transactions are foreign exchange transactions with delivery (delivery) at that time also (theoretically, although in practice spot transactions completed within two or three days) (Faisal, 2001).

## 2.3. Forward Rate

Forward exchange rate is exchange rates at the time the transaction to be completed/ submitted later. Due to economic actors do not know how the spot rate in 1 week, month, year or other future. Forward exchange rate for a specific date in the future is usually used as an estimate of future spot rates. Forward exchange rate is usually easily accessible so that it can be used as a predictor easy and free of charge. Nobody was always convinced that the forward exchange rate of the currency provides forecasts are more accurate than the spot rate (Madura, 2006).

## 2.4. Future Spot

Future Spot is the spot exchange rate that will apply in the future, in other words, foreign currency exchange rates against domestic exchange rate in the next period. The aim of predicting future spot is to facilitate the anticipation of changes in the foreign exchange rate risk (Salvatore, 1997). Future Spot is a reflection of the efficiency of the foreign exchange market. Market efficiency (market efficiency) is the market where new information has been reflected in the price of securities traded.

## 2.5. Market efficient

Predicted the foreign exchange is an important strategy for successful international business. The error of forecasting or projected foreign exchange can diminish the benefits of international transactions. Thus, the foreign exchange predicts is key to decision-making involving the transfer of funds from one currency to another currency within a certain time period. With foreign exchange predict the company or investor can do hedging (hedging) to anticipate the risks associated with foreign exchange fluctuations (Kuncoro, 2001). Efficient markets if foreign exchange rates reflect all available and relevant information. Market efficiency is a combination of spot rate and the forward exchange rate to predict future spot. This relationship teaches that expectations of future spot rates (future spot) is a weighted average of the current spot rate and the forward exchange rate in an efficient market

## 2.6. Spot Rate and Future Spot

Madura (2006), future spot can use the spot rate because the exchange rate reflects the estimated market or the spot rate at the end of the forecast period. The spot rate (the spot exchange rate) is the nominal exchange rate of the day / foreign currency exchange rate of the domestic currency against certain at the time of the transaction.

Chiang (1986), the current spot rate is significant in predicting future spot rates. Dewi (2007), using a regression model to prove that the spot rate significant in predicting future spot for EURO, Yen and Australian Dollar. This research was also supported by Yunanto (2009), the spot price is the best predictor of future CPO price is based on market-based approach to forecasting.

$H_1$: spot rate in the first quarter of 2013 influential in predicting future spot the second quarter of 2013

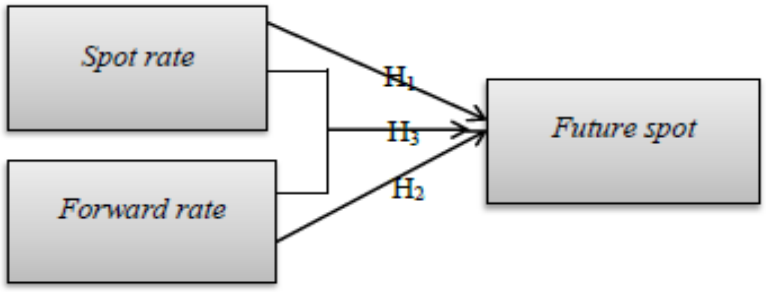
### 2.7. Forward Rate and Future Spot

Alternative to measure the foreign exchange rate expectations is to use the information reflected in the forward exchange rate. Forward exchange rate for a specific date in the future is usually used as an estimate of future spot rates.

Dewi (2007) in his research, that the forward exchange rate is significant in predicting future spot for the Euro, Japanese Yen and Australian Dollar. Kumar (2007), forward rate is not significant in predicting future spot. Yunanto (2009), proves that by using regression model forward price is the best predictor of future price of CPO.

$H_2$: forward rate in the first quarter of 2013 influential in predicting Future Spot the second quarter of 2013

**2.1. Research Model**




## 3. Research Design

### 3.1. Sample Selection

In this research, technique used is purposive sampling method. Purposive sampling method is the selection of samples whose information is obtained by using certain considerations, which are generally adapted to the purpose or research issues (Walpole, 1995). The spot rate and the futures spot obtained from www.bi.gi.id and forward exchange rate obtained from www.forexpros.com. The sample is selected according to certain criteria:

1. The sample includes currency exchange rate Rupiah (IDR), Ringgit (MYR), Singapore dollar (SGD), Bath (THB), Peso (PHP), and Brunei Dollars (BND). Samples are based on the main countries of ASEAN
2. The price rate is sampled daily data during the first two quarters in 2013 were held on the same day in each country.
3. The research that the daily data for the first quarter of 2013 (January –March 2013) the spot rate and the forward exchange rate, while the futures spot taken from daily data quarter of 2013 (April-June 2013)

**Table 1. Samples**

| Variable | | Jan | Feb | Mar | Apr | May | june | samples |
|---|---|---|---|---|---|---|---|---|
| Spot Rate | IDR | 21 | 20 | 19 | | | | 60 |
| | MYR | 21 | 20 | 19 | | | | 60 |
| | SGD | 21 | 20 | 19 | | | | 60 |
| | THB | 21 | 20 | 19 | | | | 60 |
| | PHP | 21 | 20 | 19 | | | | 60 |
| | BND | 21 | 20 | 19 | | | | 60 |
| Forward Rate | IDR | 21 | 20 | 19 | | | | 60 |
| | MYR | 21 | 20 | 19 | | | | 60 |
| | SGD | 21 | 20 | 19 | | | | 60 |
| | THB | 21 | 20 | 19 | | | | 60 |
| | PHP | 21 | 20 | 19 | | | | 60 |
| | BND | 21 | 20 | 19 | | | | 60 |
| Future Spot | IDR | | | | 21 | 20 | 19 | 60 |
| | MYR | | | | 21 | 20 | 19 | 60 |
| | SGD | | | | 21 | 20 | 19 | 60 |
| | THB | | | | 21 | 20 | 19 | 60 |
| | PHP | | | | 21 | 20 | 19 | 60 |
| | BND | | | | 21 | 20 | 19 | 60 |

## 3.2. Measurement of variables

**Table 2. Measurement of Variables**

| Variabel | Definition | Measurement | Scale |
|---|---|---|---|
| *Spot rate* | The nominal exchange rate of the day / value of the domestic currency exchange rate specified at the time of the transaction | The spot rate is taken from the middle exchange rate of Bank Indonesia at the time of the observation that the first quarter of 2013 (January, February, March) | Nominal |
| *Forward rate* | Exchange rate agreed upon by the seller and the buyer at the time of the transaction to be paid in the future | Forward exchange rate obtained on the Futures Exchange in the first quarter of 2013 (January, February, March) | Nominal |
| *Future spot* | The spot exchange rate in the future (the next period) | Exchange rate which will come in the next period is taken from the middle rate of Bank Indonesia in the second quarter 2013 (April, May, June) | Nominal |

### 3.3. Analysis Method

This study uses a simple regression analysis and multiple regression analysis. The equation used is:

$Y = \alpha + \beta S_t + e_{t+1}$ .....(3.1)

$Y = \alpha + \gamma F_t + e_{t+1}$ .....(3.2)

$Y = \alpha + \beta S_t + \gamma F_t + e_{t+1}$ .....(3.3)

Y = *Future Spot*

$\alpha$ = constant

$\beta$, $\gamma$ = coefficient

$S_t$ = *Kurs Spot*

Ft = *Kurs Forward*

$e_{t+1}$ = *error*

## 4. Result of Research

### 4.1. $R^2$ test (coefficient of determination)

**Table 3. $R^2$- test**

| variable | $R^2$ | | |
|---|---|---|---|
| | Spot | Forward | composite |
| IDR | 0.375 | 0.463 | 0.484 |
| MYR | 0.219 | 0.02 | 0.122 |
| SGD | 0.04 | 0.01 | 0.292 |
| THB | 0.113 | 0.91 | 0.454 |
| PHP | 0.03 | 0.036 | 0.10 |
| BND | 0.10 | 0.071 | 0.326 |

Based on the test results of the coefficient of determination shows that the six foreign exchange are concluded as follows:

1. Rupiah (Rp)
   a. Spot market efficiency
      $R^2$ value is 0.375, the meaning is 37.5% variable spot futures can be explained by the variable spot rate. While the rest (100% -37.5% = 62.5%) caused by other variables
   b. Forward market efficiency
      $R^2$ value is 0.463, the meaning is 46.3% variable spot futures can be explained by the variable forward exchange rate. While the rest (100% - 46.3% = 53.7%) caused by other variables
   c. Composites market efficiency
      $R^2$ value is 0.484, the meaning is 48.4% variable spot futures can be explained by the variable spot rate and the forward exchange rate. While the rest (100% - 48.4% = 51.6%) caused by other variables
2. Ringgit (MYR)
   a. Spot market efficiency

$R^2$ value is 0.219, the meaning is 21.9% variable spot futures can be explained by variations in the spot rate. While the rest (100% - 21.9% = 78.1%) caused by other variables,

b. Forward market efficiency

$R^2$ value is 0.02, this means that 2% spot future variables can be explained by variations in the forward exchange rate. While the rest (100% - 2% = 98%) are caused by other variables

c. Composites market efficiency

$R^2$ value is 0.122, meaning 12.2% variable spot futures can be explained by the variable spot rate and the forward exchange rate. While the rest (100% - 12.2% = 87.8%) caused by other variables

3. Singapore Dollar (SGD)

a. Spot market efficiency

$R^2$ value is 0.04, this means that 4% variable spot futures can be explained by the variable spot rate. While the rest (100% - 4% = 96%) are caused by other variables

b. Forward market Efficiency

$R^2$ value is 0.01, this means that 1% variable spot futures can be explained by the variable forward exchange rate. While the rest (100% - 1% = 99%) are caused by other variables

c. Composites market efficiency

$R^2$ value is 0.292, meaning is 29.2% variable spot futures can be explained by variations in the spot rate and the forward exchange rate. While the rest (100% - 29.2% = 70.8%) caused by other variables

4. Bath (THB)

a. Spot market efficiency

$R^2$ value is 0.113, meaning is 13.3% variable spot futures can be explained by the variable spot rate. While the rest (100% - 13.3% = 86.7%) caused by other variables

b. Forward market efficiency

$R^2$ value is 0.91, this means that 91% variable spot futures can be explained by the variable forward exchange rate. While the rest (100% - 91% = 9%) caused by other

c. Composites market efficiency

$R^2$ value is 0.454, meaning is 45.4% variable spot futures can be explained by the variable spot rate and the forward exchange rate. While the rest (100% - 45.4% = 54.6%) caused by other variables

5. PESO (PHP)

a. Spot market efficiency

$R^2$ value is 0.03, this means that 3% variable spot futures can be explained by the variable spot rate. While the rest (100% - 3% = 97%) are caused by other variables

b. Forward market efficiency

$R^2$ value is 0.036, meaning 3.6% variable spot futures can be explained by the variable forward exchange rate. While the rest (100% - 3.6% = 96.4%) caused by other variables

c. Composites market efficiency

$R^2$ value is 0.10, this means that 10% variable spot futures can be explained by the variable spot rate and the forward exchange rate. While the rest (100% - 10% = 90%) are caused by other variables.

6. Brunei Dollar (BND)

a. Spot market efficiency

$R^2$ value is 0.10, this means that 10% variable spot futures can be explained by the variable spot rate. While the rest (100% - 10% = 90%) are caused by other variables

b. Forward market efficiency

$R^2$ value is 0.071, this means that 7.1% of the variable spot futures can be explained by the variable forward exchange rate. While the rest (100% - 7.1% = 92.9%) caused by other variables

c. Composites market Efficiency

$R^2$ value is 0.326, meaning is 32.6% of the variable spot futures can be explained by the variable spot rate and the forward exchange rate. While the rest (100% - 32.6% = 67.4%) caused by other variables.

## 4.2. T-test Hypothesis to the Foreign Exchange of Market Efficiency

Table 4.T- test

| Kurs | | Spot | | | Forward | | | Komposit | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Koefisien | t-value | signifikansi | Koefisien | t-value | signifikansi | Koefisien | t-value | signifikansi |
| IDR | α | -3.765,58 | -1,616 | 0,111 | 1.590,85 | 1,374 | 0,175 | -1.962,36 | -0,744 | 0,46 |
| | β | 1,417 | 5,896 | 0,00 | | | | 0,503 | 1,497 | 0,14 |
| | γ | | | | 0,822 | 7,076 | 0,00 | 0,689 | 4,739 | 0,00 |
| MYR | α | 0,26 | 0,351 | 0,727 | 2.666 | 7,137 | 0,00 | 1,107 | 1,577 | 0,12 |
| | β | 0,969 | 4,031 | 0,00 | | | | 0,664 | 2,58 | 0,012 |
| | γ | | | | 0,125 | 1,083 | 0,283 | 0,025 | -0,204 | 0,839 |
| SGD | α | 1,126 | 2,721 | 0,009 | 1.226 | 11,856 | 0,00 | 0,23 | 1,027 | 0,309 |
| | β | 0,126 | 0,458 | 0,648 | | | | 0,825 | 4,841 | 0,00 |
| | γ | | | | 0,017 | 0,217 | 0,829 | -0,02 | -0,036 | 0,971 |
| THB | α | 7,041 | 0,778 | 0,44 | 39,456 | 9,905 | 0,00 | 79,673 | 11,013 | 0,00 |
| | β | 0,825 | 2,72 | 0,009 | | | | -1,578 | -0,159 | 0,00 |
| | γ | | | | -0,303 | -2,411 | 0,019 | -0,087 | -0,833 | 0,408 |
| PHP | α | 9,468 | 0,389 | 0,699 | 60,21 | 4,775 | 0,00 | -47,839 | -0,874 | 0,386 |
| | β | 0,807 | 1,35 | 0,182 | | | | 2,763 | 2,026 | 0,047 |
| | γ | | | | -0,435 | -1,461 | -1,461 | -0,54 | -1,831 | 0,072 |
| BND | α | 0,327 | 0,847 | 0,401 | 1,039 | 10,48 | 0,00 | 0,18 | 0,883 | 0,381 |
| | β | 0,792 | 2,534 | 0,014 | | | | 0,801 | 4,64 | 0,00 |
| | γ | | | | 0,16 | 2,108 | 0,039 | 0,059 | 0,862 | 0,392 |

1. The spot market efficiency hypothesis (3.1), cannot be rejected at the 5% for foreign exchange is Rupiah (IDR), Ringgit (MYR), Bath (THB), and Brunei Dollars (BND), meaning that the spot rate significant explanatory for future spots. Singapore Dollar (SGD) and Peso (PHP) was not significant and the efficiency of the spot market was rejected, meaning that the spot rate is not a significant explanatory for future spots.

2. The forward market efficiency hypothesis (3.2), cannot be rejected at the 5% for foreign exchange is Rupiah (IDR), Bath (THB), Peso (PHP) and Brunei Dollars (BND). The forward exchange rate is an explanatory significant for future spots. Ringgit (MYR) and Singapore Dollar (SGD) was not significant and forward market efficiency means the forward exchange rate declined is not a significant explanatory for future spots.
3. The composite market efficiency hypothesis (3.3), not significant at the 5% for all foreign exchange that is Rupiah (IDR), Ringgit (MYR), Singapore dollar (SGD), Bath (THB), Peso (PHP), and Brunei Dollars (BND), meaning is forward spot rate and the exchange rate is not a significant explanatory for future spots.

### 4.3. F –Test

**Table 5. F-test**

| Variable | | F-Value | Significant |
|---|---|---|---|
| IDR | Spot | 34.759 | 0.000 |
| | Forward | 50.071 | 0.000 |
| | Composite | 26.691 | 0.000 |
| MYR | Spot | 16.248 | 0.000 |
| | Forward | 1.173 | 0.283 |
| | Composite | 3.972 | 0.024 |
| SGD | Spot | 0.21 | 0.648 |
| | Forward | 0.047 | 0.829 |
| | Composite | 11.750 | 0.000 |
| THB | Spot | 7.396 | 0.009 |
| | Forward | 5.812 | 0.019 |
| | Composite | 23.721 | 0.000 |
| PHP | Spot | 1.821 | 0.182 |
| | Forward | 2.136 | 0.149 |
| | Composite | 3.178 | 0.049 |
| BND | Spot | 6.424 | 0.014 |
| | Forward | 4.442 | 0.039 |
| | Composite | 13.771 | 0.000 |

1. $H_0$ of spot market efficiency (3.1), cannot be rejected at significant of 5% for Rupiah (IDR), Ringgit (MYR), Bath (THB) and Brunei Dollars (BND), meaning that the regression model(3.1) is used to predict future significant spot on the Rupiah (IDR), Ringgit (MYR), Bath (THB) and Brunei Dollars (BND). Singapore Dollar (SGD) and Peso (PHP) was not significant, meaning that the regression model (3.1) cannot be used to predict future spot.
2. $H_0$ of market efficiency forward (3.2), cannot be rejected at significant of 5% for foreign exchange is Rupiah (IDR), Bath (THB) and Brunei Dollars (BND), meaning that the regression model (3.2) significant is used to predict future spot in Rupiah (IDR), Bath (THB) and Brunei Dollars (BND). Ringgit (MYR), Singapore dollar (SGD), Peso (PHP) was not significant, meaning regression model (3.2) cannot be used to predict future spot.
3. $H_0$of market efficiency composite (3.3), cannot be rejected at significant of 5% for foreign exchange is Rupiah (IDR), Ringgit (MYR), Bath (THB), Peso (PHP) and Brunei Dollars (BND) means regression model (3.3) is used to significantly to Rupiah (IDR), Ringgit (MYR), Bath (THB), Peso (PHP) and Brunei Dollars (BND). Singapore Dollar

(SGD) was not significant, meaning that the regression model (3.3) cannot be used to predict future spot.

### 4.4. The result of Hypothesis

H1: The spot rate in the first quarter of 2013 were significantly positive affect Future Spot the second quarter of 2013 for each of the Rupiah (IDR), Ringgit (MYR), Bath (THB) and Brunei Dollars (BND) to US Dollar ( USD). Singapore Dollar (SGD) and Peso (PHP) was not significant, meaning that the spot rate in the first quarter of 2013 did not significantly affect the Future Spot the second quarter of 2013.

H2: The forward exchange rate in the first quarter of 2013 were significantly positive effect on Future Spot the second quarter of 2013 for each of the Rupiah (IDR), Bath (THB), Peso (PHP) and Brunei Dollars (BND) to US Dollar ( USD). To exchange Ringgit (MYR) and Singapore Dollar (SGD) was not significant, meaning that the forward exchange rate in the first quarter of 2013 did not significantly affect the Future Spot the second quarter of 2013.

H3: Spot rate and Forward rate in the first quarter of 2013 influence significantly positively to the Future Spot the second quarter of 2013 for each of the Rupiah (IDR), Ringgit (MYR), Bath (THB), Peso ( PHP) and Brunei Dollars (BND) to US Dollar (USD). Singapore Dollar (SGD) was not significant, meaning that the spot rate and the forward exchange rate in the first quarter of 2013 did not significantly affect the future spot the second quarter of 2013.

### 4.5. Evaluation of Performance Prediction

Performance of prediction is used to assess the results of accurate forecasting for each foreign exchange rates. Forecasting the performance is to compare the results of forecasting with forecasting realizable value, the required measurement forecasting error. Forecast error is calculated as a percentage of the value of the realization of the foreign exchange rate. (Madura,2006). Madura (2006), the measurement of forecasting error is as follows:

$$\text{Forcasting Error} = \frac{Value\ of\ prediction - actual\ values}{actual\ values}$$

**Table 6. Forecasting Performance**

| | Value of Prediction | Actual Values | Difference of Percentage |
|---|---|---|---|
| IDR | -3.765,58 | 9.785,33 | 138% |
| MYR | 0,26 | 3,07 | 92% |
| THB | 7.041 | 29,86 | 76% |
| BND | 0,327 | 1,26 | 74% |

Prediction of value is constant coefficient partial results of the test (t-test). While the realizable value is the mean value of the data futures spot the second quarter of 2013. In this

study, the percentage of difference forecasting Brunei Dollar (BND) rate the lowest among the others, it can be said that the prediction Brunei Dollar (BND) is more accurate with a percentage error 74%. Percentage difference realizable value against most major forecasts in this study is Rupiah (IDR) 138%, Ringgit (MYR) 92% and Bath (THB) 76%. This difference is caused by other factors not included in the study variables.

## 5. Conclusion

This study aims to examine the effect of the spot rate and the forward exchange rate in predicting future spot. Prediction of future spot for the investors and international economic can anticipate fluctuations in foreign currency exchange rates in this study is the Rupiah (IDR), Ringgit (MYR), Singapore dollar (SGD), Bath (THB), Peso (PHP) and Brunei Dollar (BND) to US Dollar (USD) resulting in a foreign exchange transaction minimize the risk of exchange rate.

In this study proved that the spot rate and the forward exchange rate together in a positive and significant effect in predicting future spot for Rupiah (IDR), Ringgit (MYR), Singapore dollar (SGD), Bath (THB), Peso (PHP) and Brunei Dollars (BND) to US Dollar (USD).

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