

**RELATIONSHIP (Bath) THAILAND AND (Idr) INDONESIA CURRENCY WITH
REGRESSION**

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Abstract

This study focuses on the exchange rates of two countries in Southeast Asia, namely Thailand and Indonesia against the exchange rate of US Dollar. The data in this study comprises the exchange rates of Thai and Indonesian currencies using the conversion of the two countries' currencies into US dollars. This study tested using a simple regression analysis to see the relationship between the two currencies. This research proposes 4 models of regression equations. From the results of research conducted there is a significant relationship between currency exchange rates Thailand and Indonesia.

Keywords; Multiple regressions, Currency rate, Thailand, Indonesia.

I. INTRODUCTION

The majority of Asian currencies slumped, led by the rupiah and the Thai baht which is nearing its weakest level a week due to the European financial crisis disrupting export demand from the region. Bank Negara Malaysia Governor Zeti Akhtar Aziz said there was no certainty related to Europe's debt crisis. During the week, borrowing costs in Spain rose more than 7%, compared with 5.11% at the start of the year, after the country followed Greece's search for a bailout. "Investors are still very worried about the situation in Spain and it has a negative impact on Asian currencies. We also look forward to the conclusion of the EU later this month," said Nalin Chutchotitham, an analyst at Kasikornbank Pcl based in Bangkok.

According to data compiled by Bloomberg, the baht depreciated 0.4% to 31.65 per US dollar at 9:57 pm Bangkok. The rupiah weakened 0.3% to 9,474 per dollar, the Malaysian ringgit dropped 0.4% to 3.1713 per US dollar and the Philippine peso fell 0.3% to 42.225 per US dollar. Bank of Thailand

director Songtham Pinto, in charge on macro issues, said the central bank cut its 2012 export growth forecast to 8% from 9% due to the crisis in Europe. The baht weakened for two straight days. Fed officials cut growth forecasts in the country with the largest economy to be between 1.9% -2.4% from 2.4% -2.9%, and extend the short-term bond replacement program with long-term debt worth US \$ 267 billion by the end of this year to lower borrowing costs and boost the economy. The US central bank said it was prepared to take further action.

This study focuses on looking at the relationship between the exchange rate of the Thai currency currency of the Thai nation with the rupiah currency of Indonesia, using a simple regression test.

II. THE CURRENCY VALUE THEORY

One of the factors influencing the flow of goods, services and capital between Indonesia and abroad is the exchange rate of Rupiah (Exchange Rate) to foreign currency. Exchange Rate is an exchange between two different currencies, which is a comparison of the value or price between the two currencies.

This value comparison is often called the exchange rate (exchange rate). The exchange rate is usually volatile; the exchange rate changes can be depreciation and appreciation. Depreciation of the rupiah against foreign currency means a decrease in the foreign currency price against the rupiah. The rupiah's appreciation of foreign currencies is the rise in rupiah against foreign currencies.

Exchange rate is the price of a currency of a country, measured or expressed in other currencies. Exchange rates play a very important role in spending decisions, since exchange rates allow us to translate prices from different countries into the same language.

If all other conditions remain, the depreciation of a country's currency against another currency (the increase in foreign exchange prices for the country concerned) causes its exports to be cheaper and its imports more expensive. While appreciation (decrease in foreign exchange prices in the country concerned) will make the prices of its export products more expensive and vice versa its import becomes cheaper. (Krugman, 2005).

According to Todaro (2004) the exchange rate is a benchmark for the Central Bank of a country to buy or sell the official domestic currency excessively against foreign currencies. The aim is to increase the price of export products and simultaneously to lower import prices as measured by the local currency exchange rates.

Meanwhile, according to Salvator (2008) rupiah exchange rate or also called the rupiah exchange rate is the comparison of the value or price of the rupiah currency with other currencies. Trade between countries where each country has its own means of exchange requires the comparative value of a currency with other currencies. The so-called foreign exchange rate or exchange rate.

The exchange rate of a country's currency is the number of domestic currency units that can be exchanged with one currency unit of another. This means that the exchange rate of a country's

currency indicates the international purchasing power of the country concerned, so that changes in the currency exchange rate indicate changes in the purchasing power of the country. Therefore, the rupiah exchange rate should be maintained in order to play an optimal role in supporting the national economy.

Causes of change in demand and supply of foreign exchange include:

1. Changes in people's appetite for foreign commodities - The more Indonesian people love and need foreign goods, then the need for foreign currency will be more and more also to get the goods from the outside.
2. Changes in investment climate and interest rate - An increasingly safe and attractive investment climate could lead to more and more foreign capital inflows, which means that foreign capital supply of dollars increases.
3. Changes in inflation rate - High inflation can cause our export commodities to be less competitive in the world market. Due to the high inflation, export prices will be expensive. As a result rarely will buy our export commodities. This is synonymous with the declining dollar offer to buy our exports.
4. Investment climate - The prospect and attractive investment climate (safe and high income level) in Indonesia will also influence the supply of dollars to Indonesia. The more interesting the value of the rupiah will be higher (appreciation).

III. RESEARCH METHODS

This research was conducted in July 2017 using variable data currency as Indonesia and Thailand, in this study using model as follows:

$$\text{Bath}_{it} = \alpha_0 + b_1 \text{IDR}_{it} + \varepsilon_{it} \quad (1)$$

$$\text{Bath}(-1)_{it} = \alpha_0 + b_1 \text{IDR}(-1)_{it} + \varepsilon_{it} \quad (2)$$

$$D(\text{Bath})_{it} = \alpha_0 + b_1 D(\text{IDR})_{it} + \varepsilon_{it} \quad (3)$$

$$D(D(\text{Bath}))_{it} = \alpha_0 + b_1 D(D(\text{IDR}))_{it} + \varepsilon_{it} \quad (4)$$

Bath is Thailand bath, IDR is indonsian rupiah.

IV. RESEARCH RESULT

In June 1997, Indonesia looked far from the crisis. Unlike Thailand, Indonesia has low inflation, surplus trade of more than 900 million dollars, large foreign currency inventories, more than 20 billion dollars, and a good bank sector.

Model 1

Table 1: Result for regression model 1

Dependent Variable: THAI_BAHT

Method: Least Squares

Date: 12/14/17 Time: 02:03

Sample: 1 2688

Included observations: 2688

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	37.67874	0.672784	56.00418	0.0000
IND_RUPIAH	-0.000352	6.91E-05	-5.092344	0.0000
R-squared	0.009562	Mean dependent var		34.27090
Adjusted R-squared	0.009193	S.D. dependent var		3.607433
S.E. of regression	3.590812	Akaike info criterion		5.395378
Sum squared resid	34633.10	Schwarz criterion		5.399765
Log likelihood	-7249.388	Hannan-Quinn criter.		5.396965
F-statistic	25.93197	Durbin-Watson stat		0.007423
Prob(F-statistic)	0.000000			

Source: Proceeds by author with software

Model 2

Table 2: Result for regression model 2

Dependent Variable: THAI_BAHT(-1)

Method: Least Squares

Date: 12/14/17 Time: 02:06

Sample (adjusted): 2 2688

Included observations: 2687 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	37.65760	0.672866	55.96599	0.0000
IND_RUPIAH(-1)	-0.000350	6.91E-05	-5.063043	0.0000
R-squared	0.009457	Mean dependent var		34.26895
Adjusted R-squared	0.009088	S.D. dependent var		3.606695
S.E. of regression	3.590269	Akaike info criterion		5.395075
Sum squared resid	34609.74	Schwarz criterion		5.399464
Log likelihood	-7246.284	Hannan-Quinn criter.		5.396663
F-statistic	25.63440	Durbin-Watson stat		0.007426
Prob(F-statistic)	0.000000			

Source: Proceeds by author with software

Model 3

Table 3: Result for regression model 3

Dependent Variable: D(THAI_BAHT)

Method: Least Squares

Date: 12/14/17 Time: 02:10

Sample (adjusted): 2 2688

Included observations: 2687 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.003106	0.005887	0.527656	0.5978
D(IND_RUPIAH)	0.000449	9.14E-05	4.914867	0.0000
R-squared	0.008916	Mean dependent var		0.002460
Adjusted R-squared	0.008547	S.D. dependent var		0.306397
S.E. of regression	0.305085	Akaike info criterion		0.464289
Sum squared resid	249.9108	Schwarz criterion		0.468678
Log likelihood	-621.7725	Hannan-Quinn criter.		0.465877
F-statistic	24.15592	Durbin-Watson stat		2.857357
Prob(F-statistic)	0.000001			

Source: Proceeds by author with software

Model 4

Table 4: Result for regression model 4

Dependent Variable: D(D(THAI_BAHT))

Method: Least Squares

Date: 12/14/17 Time: 02:11

Sample (adjusted): 3 2688

Included observations: 2686 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.95E-05	0.009952	-0.009994	0.9920
D(D(IND_RUPIAH))	0.000420	0.000106	3.982860	0.0001
R-squared	0.005876	Mean dependent var		-8.01E-05
Adjusted R-squared	0.005505	S.D. dependent var		0.517221
S.E. of regression	0.515795	Akaike info criterion		1.514531
Sum squared resid	714.0647	Schwarz criterion		1.518921
Log likelihood	-2032.016	Hannan-Quinn criter.		1.516119
F-statistic	15.86318	Durbin-Watson stat		3.223320
Prob(F-statistic)	0.000070			

Source: Proceeds by author with software

The results presented in Tables 1, 2, 3 and 4 for the simple regression of the proposed model, almost all the variables for currency exchange rates in some countries in Southeast Asia are significantly related, as seen from the resulting probability values are all significant for the model 1, 2, 3 and 4. Thus there is a significant relationship between Thailand exchange rates, Malaysia, Philippines, and Indonesia.

V. CONCLUSION

Although the rupiah crisis began in July and August 1997, the crisis strengthened in November when the effects of summer devaluations appeared on the company's balance sheet. Companies borrowing in dollars should face greater costs due to the rupiah depreciation. As a result, many people reacted by exchanging dollars with the US dollar, lowering the price of the rupiah even further.

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