

FLUCTUATION ANALYSIS OF RUPIAH EXCHANGE RATE OF DOLLAR UNITED STATES IN INDONESIA

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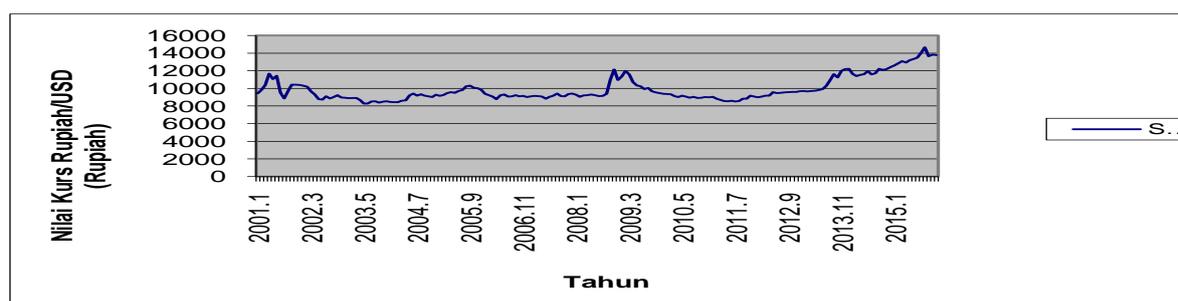
ABSTRACT: *This research is conducted to analyze the influence of interest rate, foreign exchange reserve and money supply to stability of rupiah exchange rate against US dollar in Indonesia both in long term and in short term. The data used are time series data, including foreign exchange reserves, interest rate, money supply and rupiah exchange rate against US dollar during 2001-2015 period. Data analysis was done by using ARDL approach (Auto Regressive Distruted Lag). The results showed that from the cointegration result ARDL obtained the result that there is cointegration between exchange rate variable as dependent variable with interest rate, foreign exchange reserve and money supply as independent variable. In the short-term analysis of interest rates have a significant and positive effect, foreign exchange reserves have a significant and negative impact, the money supply has a significant and positive impact on the value of the rupiah exchange rate in Indonesia. In the long-term analysis of interest rates have a significant and negative effect, foreign exchange reserves have an insignificant and positive effect, the money supply has a significant and negative impact on the value of the rupiah exchange rate in Indonesia. The results of the model stability test show that the model used is stable either by using CUSUM test or CUSUMQ test.*

KEYWORDS: Fluctuation, Rupiah Exchange Rate, US Dollar, ARDL Approach

INTRODUCTION

During the period of 1970-2016, the Government of Indonesia has implemented three exchange rate system. The first exchange rate system applied by the Indonesian government is a fixed exchange rate system (1970-1978) with an official rate of Rp250.00 / \$. In the period 1978-July 1997 the Government of Indonesia re-imposed a controlled floating exchange rate system with an average exchange rate of Rp2,000.00 / \$. However, the depreciative pressure has increased especially since early August 1997, where the rupiah broke through the figure of Rp2,650.00 / \$. In relation to that and in order to secure the ever-decreasing foreign exchange reserves, on August 14, 1997, the government decided to abolish the range of intervention and adopt a free floating exchange rate system (Bank Indonesia Report, 1998).

The weakening of the rupiah exchange rate against the US dollar causes the price of goods to increase. The rupiah continued to experience depreciation and high fluctuations until May 1998. The rupiah exchange rate recorded on the last day of the transaction in the month reached Rp11,550.00 / \$. The price of basic necessities soared, the economic downturn rampant, and there was an economic crisis. The development of the rupiah exchange rate against the US dollar 2001-2015 period can be seen in



Source: Indonesia Financial Statistics, (2016)

Figure 1. Fluctuation of Rupiah Exchange Rate Against US Dollar in Indonesia Period 2001-2015

Figure 1. shows the fluctuation of the rupiah exchange rate against the US dollar from 2001-2015 which is getting weaker. There has been a change in the rupiah exchange rate from Rp9,450.00 / \$ in January 2001 to Rp13,795.00 / \$ in December of 2015. The condition of the development of the rupiah exchange rate against the US dollar is increasingly unstable, both in the long term As well as the short term will have an adverse impact on the economic condition of Indonesia. Among them will cause high inflation, rising unemployment, high interest rates, low foreign exchange reserves, resulting in low economic activity and will ultimately impact on the decline of national economic growth.

Foreign exchange reserves become an important indicator to maintain exchange rate stability. Indonesia's experience during the economic crisis. Especially the real sectors hit by the problems of foreign debt are getting worse with the depletion of foreign exchange reserves, especially the US dollar. In addition, many companies, both exporters and importers, are forced to reduce or stop their activities entirely due to the high value of the US dollar in the domestic foreign exchange market. Another serious problem arising from the limitations of foreign exchange reserves is related to import dependency and high net transfer. This makes the Indonesian economy experiencing a very dangerous situation, namely the current account deficit and capital account. As a result, the reserves of foreign exchange become thinning and depleted, so inevitably the government must increase the debt. Foreign exchange reserves are no longer derived from export surplus but obtained from foreign loans. Most of the foreign loans used to cover the current account deficit and repay the principal installment of foreign debt. Under these conditions the addition of foreign exchange reserves will not be able to make the rupiah exchange rate against the US dollar stable.

Another important indicator for maintaining exchange rate stability is interest rates. Given the current economic condition of Indonesia, the interest rate indicator is theoretically one of the factors affecting the exchange rate changes. Changes in interest rates will affect investment in foreign securities. Investors who interact globally will look for countries with favorable interest rates (Situmeang, 2010: 51). If interest rates rise and foreign interest rates are relatively unchanged, Indonesian investors will reduce demand for the US dollar as Indonesia offers a more attractive rate of return, and overseas investors will offer US dollars to invest in dollars. This illustrates that the increase in interest rates will appreciate the value of the rupiah exchange rate against the US dollar, assuming other factors are considered fixed. Interest rates affect economic activity in general, both against the money supply, investment, the amount of foreign exchange reserves, the exchange rate and others.

Wenjen (2009) in his research in Indonesia said, the increase in interest rates turned out to cause the rupiah depreciated, let alone Indonesia to lower interest rates. The results of Wenjen's (2009) study are similar to those of Wilson, (2014) in Nambia, that there is no relationship between the interest rate and the exchange rate. Wenjen's (2009) findings are interesting to be researched in Indonesia using different models. Another study conducted by Fizari at all (2011) states that interest rates in the long term have a significant and negative impact on the exchange rate in Malaysia. Increased interest rates are more efficient in overcoming the volatility of exchange rate changes. Another study conducted in Turkey by Kayhan (2013) also mentions a two-way causality between the real exchange rate and the real interest rate in Turkey, while in China monetary policy by determining the interest rate is greater impact on economic stability caused by exchange rate fluctuations, Therefore Wenjen (2009) research will be tested again using ARDL model (Auto Regressive Distributed Lag).

In the study of the era of the 1980s there is also a debate theoretically the empirical relationship between the exchange rate and interest rates. Frenkel (1979), Sargent and Wallace (1981), Cumby and Obstfeld (1982) argue that the interest rate differential between countries strongly determines exchange rates. In another study, Hooper and Morton (1980), Woo 1985), Feldstein (1986) and Hakkio (1986) Campbell and Clarida (1987), Meese and Rogoff (1988), Edison and Paul (1991) Interest rates and exchange rates.

It is natural that research in Indonesia and some other countries in the world increase in interest rates causes the domestic currency to depreciate, let alone lower interest rates, and what about the results of research that says the increase in interest rates causes the domestic currency to appreciate, Become a possible thing. So there are two possible incidents of raising interest rates, the former may cause the domestic currency to depreciate and the second may cause the domestic currency to appreciate.

In addition to interest rates that affect the rupiah exchange rate, money supply (M1) in Indonesia also affects the rupiah exchange rate against the US dollar. The supply of money in a country often leads to inflationary turmoil, this condition is different from the US dollar offer, because the US dollar as a currency in world trade, the level of circulation is very wide that is to all corners of the world the possibility for inflation is very small compared with the domestic currency. In reality, domestic currency often happens depreciation becomes very common because the pressure of US dollar against domestic currency is always bigger.

The supply of money in Indonesia is always increasing faster than the increase in production that can guarantee price stability. The development of too high money supply in developing countries such as Indonesia will cause inflation, which can adversely affect the value of the rupiah. Therefore, if Bank Indonesia as the manager of the monetary authority can create a balance between the money supply in the community and the level of production produced, then the effect on the stability of the exchange rate will be better.

REVIEW OF LITERATURE AND FRAMEWORK FOR THINKING

Exchange Rate (Exchange Rate)

The exchange of a country's currency with other currencies is called foreign exchange transactions (Kuncoro, 2006). While the price of a currency against another currency is called the exchange rate or exchange rate / exchange rate. The exchange rate between the two

countries is the price level agreed by the people of both countries to trade each other (Mankiw, 2007). In international trade, the exchange of goods and services between countries no longer uses the currency concerned, but uses a currency acceptable to all countries. The price of a country's currency against another country's currency is called the exchange rate or exchange rate. Exchange rates play a central role in international trade, because exchange rates allow us to compare prices of all goods and services produced by different countries (Krugman and Maurice, 2011: 40).

Economic Fundamental Factors Affecting Exchange Rates

Kuncoro (2006: 18) mentions the concept of currency convertibility shows the degree of freedom of a currency to be converted / exchanged into other currencies. Although the conversion of a currency to another currency is not hampered by government regulations, but not every currency can be easily exchanged in the world foreign exchange market. So the concept of convertibility is closely related to the difference between strong currencies and hard currencies (hard and soft currencies).

Rivera (2004: 15), the exchange rate of domestic currency and foreign currency is defined as the amount of domestic currency required to purchase foreign currency. When the exchange rate increases, the domestic currency depreciates and the foreign currency appreciates. Conversely, the decline in exchange rates reflects the appreciation of the domestic currency and the depreciation of foreign currency.

Difference in Interest Rate

Mc Donald and Clark (1997: 1-53) based on a power purchase power approach and using economic fundamental factors to see long-term and short-term effects on the real US dollar exchange rate, Deutsche Mark (DM) and Japanese Yen. Variables used in the model are:

$$q_t = h(R, R^*, FBAL, LTOT, LTNT, NFA, LROIL)$$

Where :

Q_t = Real Exchange Rate

R, R^* = Interest Rate of Long Term Bonds

FBAL = Fiscal Balance

LTOT = Term of Trade

LTNT = Consumer Price Index Risk Against Large Merchant Price Index

NFA = Net Foreign Assets

LROIL = Oil Price

Money Supply (Money Supply)

Money supply (M1) in Indonesia is always increasing faster than production increase which can guarantee price stability. The development of too high money supply in developing countries such as Indonesia will cause inflation which could adversely affect the rupiah exchange rate. Therefore, if Bank Indonesia as the manager of the monetary authority can

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create a balance between money supply in the community and the level of production produced then the impact of inflation and deflation that could affect the exchange rate can be avoided.

In line with this Szakmary and Mathur (1997) developed a model of fundamental factors that affect the exchange rate (exchange rate), namely in the form of models:

$$ER = f \{GDP, I, Ms, FT (X-M), R, P\}$$

Where :

ER = Exchange Rate

GDP = Gross Domestic Product

I = Inflation Rate

Ms = Money Offers

FT = Foreign Trade

R = Interest Rate

P = Price of Goods

Foreign Reserves (Net Foreign Assets)

Foreign exchange is as a means of payment abroad which, among others, can be in the form of gold, foreign banknotes and other bills in foreign currency to foreign parties (Rachbini, 2000). On the other hand Tambunan (2001), foreign exchange reserves are a number of foreign exchange reserved by the central bank for development financing and foreign liabilities which include import financing and other payments to foreign parties. Foreign exchange reserves are the sum of capital transactions and net exports. Or it can be said foreign exchange reserves = Capital transactions + Net export. With the formula of foreign exchange reserves can be seen as follows: $CDV_t = CDV_{t-1} + TB_t + TM_t$

Where:

CDV_{t-1} = Previous foreign exchange reserves

TB_t = Current account

TM_t = Capital transactions

In line with this Kemre (2002: 1) using a model by using fundamental factors namely:

$$ER = f (CR, CF, IRD, CAB, RDF)$$

Where :

ER = Exchange Rate

CR = Reserve of Foreign Exchange

CF = Capital Flow

IRD = Difference in Interest Rate

CAB = Current Transaction Balance

RDF = Fiscal Deficit Ratio with industrial output.

Framework

Influence of Interest Rate with Exchange Rate

Karahan (2012), interest rates negatively affect the exchange rate, the higher the interest rate will be the lower the exchange rate (exchange rate strengthening) and conversely the lower the interest rate will be the higher the exchange rate (weakening exchange rate). And there is no causality relationship between interest rate and exchange rate. On the other hand Kayhan (2013), there is a two-way causality between the real exchange rate and the real interest rate in Turkey. The results of causality testing in China and India that there is only one-way relationship between interest rate variables with the exchange rate. So is the test results in Russia and Brazil. Nevertheless for Russia as a country, Russia's oil exports are bigger driven by oil prices than interest rates, while in China monetary policy by determining the interest rate is greater impact on economic stability caused by exchange rate fluctuations.

Another opinion expressed by Alimi (2013), there is a long-term relationship between nominal interest rates, inflation, foreign exchange rates and interest rates. The government should encourage and support the real sector through subsidies and investment and infrastructure as one way to limit inflation. By lowering interest rates and will have an impact on economic growth. Other opinions are added again by Zahid and Sajid (2011), changes in exchange rates affect the interest rate which in turn affects aggregate demand for goods and services through changes in the real interest rate. On supply-side, exchange rate depreciation has a negative effect as domestic firms adjust their prices in response to changes in the effective price of foreign firms.

Other opinions expressed by Fizari at all (2011) also provide the same meaning between the exchange rate and the interest rate that negatively affect the exchange rate. Increased interest rates are more efficient in overcoming exchange rate volatility. Based on the opinion, it can be concluded that there is a negative effect of interest rate on the exchange rate, where if the interest rate increases, the exchange rate will decrease (appreciation) and vice versa if the interest rate decreases the exchange rate will increase (depreciation).

Influence of Money Supply with Exchange Rate

Szakmary and Mathur (1997), inflation, money supply and imports have a positive effect on the exchange rate. If inflation, money supply and imports increase then the exchange rate increases (depreciation). Other opinion is expressed by Agustin (2009), the money supply (M2) has a unidirectional relationship with the exchange rate, meaning growth in the money supply variable causes growth in the rupiah exchange rate in the same direction (exchange rate depreciates) assuming other variables are constant. This condition is in accordance with the theory of money supply because between money supply and exchange rate has a positive relationship (direct), the increase in domestic money supply resulted in domestic currency, depreciated. This variable of money supply has a dominant influence among other independent variables.

Agustin (2009) and Vidyamukti (2013), the money supply can affect the exchange rate, the higher the money supply will weaken the exchange rate, and the lower the money supply will further strengthen the exchange rate.) Dorothy (2014), There is a variation between the money supply and the naira exchange rate. Increase in the money supply has negatively impacted the economy in Nigeria as it increases inflation and affects the weakening of the exchange

rate. Krugman (2003: 111), the increase in money supply lowers the domestic interest rate, Domestic currency depreciates. Other opinions are expressed by Clemens and Alex (2002), there is a positive relationship between exchange rates and inflation, as well as Mishkin (2008: 130), the higher the domestic money supply causes the domestic currency to depreciate. Others put forward by Akinbobola (2012), there is a T-shirt relationship The amount of money in circulation and the exchange rate.

Based on some opinions can be concluded, the money supply has a positive effect on the exchange rate, meaning that the higher the money supply will weaken the exchange rate (depreciated) and the lower the money supply will increase the appreciation rate.

Pengaruh Cadangan Devisa dengan Kurs.

Kemre (2002), economic fundamental factor is an indicator of exchange rate crisis in economic transition in Indonesia. Seeing this condition can not be denied, the addition of Indonesian foreign exchange will remain sourced from the flow of foreign capital, both from the government sector and the private sector. Since the crisis began and export activity has declined, the addition of foreign exchange has been made possible by new loan disbursements and standby loan drawdowns. In line with this Kemre (2002: 1), the greater the foreign exchange reserve then the exchange rate will be more strengthened and stable.

Then added again by the opinion Agustin (2009), the increase in the amount of foreign exchange reserves can strengthen the exchange rate (exchange rate appreciated). Foreign exchange reserves and exchange rates have a negative relationship. The greater the amount of foreign exchange reserves that are owned then the confidence abroad on the ability of our country to overcome external shocks will increase so as to suppress speculation over the domestic currency so that the exchange rate will strengthen. Another opinion explaining the effect of foreign exchange reserves on exchange rates is stated by Emre and Ismail (2001), any increase in foreign exchange reserves will cause Turkey's currency to appreciate. Based on the above opinion can be described in the framework of thought in this study are as follows:

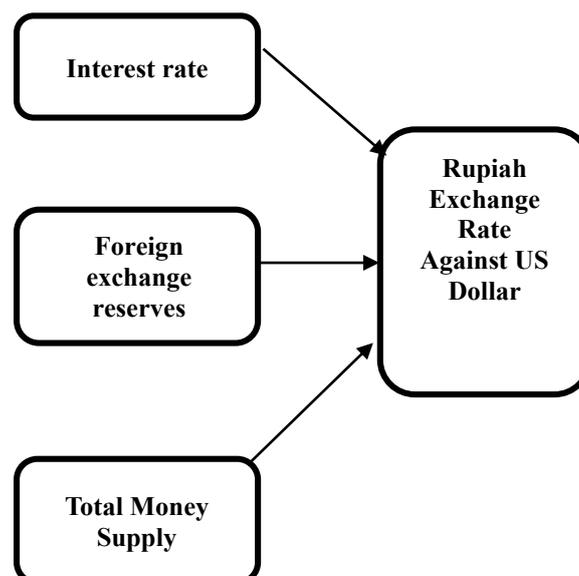


Figure 2. Framework for Thinking

RESEARCH METHODS

To analyze how much interest rate influence, foreign exchange reserve and money supply to stability of rupiah exchange rate against US dollar in Indonesia both in long term and in short term analyzed by using ARDL model (Auto Regressive Distruted Lag).

The general ARDL equation is as follows:

$$\Delta KURS_t = \alpha_{0i} + \sum_{i=1}^n \alpha_{1i} \Delta KURS_{t-i} + \sum_{i=1}^n \alpha_{2i} \Delta Sb_{t-i} +$$

$$\sum_{i=1}^n \alpha_{3i} \Delta Cdv_{t-i} + \sum_{i=1}^n \alpha_{4i} \Delta Jub_{t-i} + \beta_{11} KURS_{t-1} + \beta_{21} Sb_{t-1} + \beta_{31} Cdv_{t-1} + \beta_{41} Jub_{t-1} + \epsilon_{1t}$$

The short-term ARDL equation is as follows:

$$\Delta KURS_t = \alpha_{0i} + \sum_{i=1}^n \alpha_{1i} \Delta KURS_{t-i} + \sum_{i=1}^n \alpha_{2i} \Delta Sb_{t-i} +$$

$$\sum_{i=1}^n \alpha_{3i} \Delta Cdv_{t-i} + \sum_{i=1}^n \alpha_{4i} \Delta Jub_{t-i} + \alpha_{5i} \Delta Ect_{t-1} + \epsilon_{1t}$$

The long-term ARDL equation is as follows:

$$\Delta KURS_t = \beta_{0i} + \beta_{11} KURS_{t-1} + \beta_{21} Sb_{t-1} + \beta_{31} Cdv_{t-1} + \beta_{41} Jub_{t-1} + \epsilon_{1t}$$

Where β_{1i} β_{2i} β_{3i} and β_{4i} are long-term dynamic coefficients.

Where :

Exchange Rate = Rupiah Exchange Rate to US Dollar

Sb = Interest Rate

Jub = Total Money Supply

Cdv = Foreign Exchange Reserves

DISCUSSION

Test Stationarity

The results of KURS, SB, and CDV variables on station are first different I (1) because they have a PP probability value smaller than the 5 percent alpha testing level, so the Auto Regressive Distributed Lagged (ARDL) model is a suitable method used in this study.

Table 1: Unit Root Test with Phillips-Perron

Variabel	1th	
	Level	Difference
	Prob.	Prob.
KURS	0.8435	0.0000
SB	0.4947	0.0000
CDV	0.8775	0.0000
JUB	1.0000	0.0000

Source: Data Processing Results, 2017

Optimal Lag Determination

The optimum lag length selected can be shown in Table 2.

Table 2: Optimal Lag Lag Based on Multiple Criteria

Lag	LR	FPE	AIC	SC	HQ
0	NA	1.07e+26	71.28	71.35	71.31
1	2615.02	2.23e+19	55.90	56.26	56.05
2	130.13	1.21e+19	55.29	55.95*	55.56*
3	46.30*	1.09e+19*	55.18*	56.13	55.57

Source: Data Processing Results, 2017

Based on Table 2, LR, FPE and AIC criteria choose lag order 3 while SC and HQ criteria choose order 2. In this research the optimal lag length used is lag order 3.

Cointegration Test

The result of cointegration test by using bounds test method can be seen in Table 3.

Table 3: Cointegration Test Results (Bounds Test)

Variabel Dependen/ Independen	F- Statistik	Nilai Batas Bawah	Nilai Batas Atas	Keterangan
KURS / SB, CDV, JUB	5.488	3.23	4.35	Terima Ha

Trust Level 5%

Source: Data Processing Results, 2017

From Table 3 the result of cointegration testing using bound test method at 5% confidence level is cointegration in long term because it has F-Statistic value below the critical value of the lower bound.

Estimated Short Term and Long Term Model with ARDL

The results of long-term coefficient estimates and short-term dynamics using the selected ARDL model can be seen in Table 4.

Table 4: Estimated Short and Long Term Model Results

Variabel Dependen KURS	Selected Model: ARDL (1, 1, 1, 1) Coefficient	Prob,
D(SB)	398,1911	0,0038
D(CDV)	-0,029522	0,0033
D(JUB)	0,002883	0,0002
CointEq(-1)	-0,207518	0,0000
C	1.653,431*	3,834
KURS	0,792482*	17,334

SB	-386,3210*	-2,906
CDV	0,016887*	1,636
JUB	-0,002367*	-3,058

Diagnostik Uji

Statistik

R2	0,944912
R2-adj	0,942656
D-W	1,854087
F-statistic	419,0138
Prob	0,000000

Source: Data Processing Results, 2017

Based on the results of short-term model testing with ARDL in Table 4 shows, in the short term interest rates have a positive effect on the exchange rate. The result of this test is in accordance with the opinion put forward by Wenjen (2009), the increase of interest rate in Indonesia period 1997-2007 only cause exchange rate depreciate in the short term. In long-term interest rates have a negative and significant effect on the stability of the rupiah against the US dollar in Indonesia. The results of this analysis are in line with the opinions expressed by Szakmary and Mathur (1997), Fizari at all (2011), Alimi (2013), Kayhan (2013), Scott and Kristofer (2014), Frenkel (1979), Sargent and Wallace (1981) And Cumby and Obstfeld (1982), interest rates determine the exchange rate.

Foreign exchange reserves in the short term have a significant and negative effect on the rupiah exchange rate. The test results are in line with Agustin (2009), Emre and Ismail (2001). In the long term, foreign exchange reserves have positive and insignificant effect on rupiah exchange rate in Indonesia. This condition in the long run foreign exchange reserves do not give effect to the strengthening of the rupiah exchange rate, meaning that although foreign exchange reserves increase the exchange rate continues to weaken in the long term. The test results are in line with Kemre (2002) that since the crisis and export activities have declined, the additional foreign exchange has been made possible by new loan disbursements and standby loan drawdowns.

The money supply in the short term has a positive effect on the rupiah exchange rate. This test is in accordance with the opinion of Szakmary and Mathur (1997), Agustin (2009), Vidyamukti (2013) and Dorothy (2014). Different in the long run, the addition of money supply in the long term gives a significant influence on the strengthening of the rupiah exchange rate, meaning that long-term money supply negatively affects the rupiah exchange rate, because in the long run the money supply takes time to adjust the short-term imbalances to long-term. This finding is in line with Seoud's opinion, (2014). Given these conditions, the Indonesian government should manage the money supply as well as possible because the money supply can not weaken the rupiah exchange rate itself in the short term or long term. This can be done by setting the interest rate, controlling inflation so that the exchange rate remains stable or even strengthened

The value of R2-adj 0,942 illustrates that variations of interest rate, money supply and foreign exchange variable can explain the variation of exchange rate variable in Indonesia by 94.2 percent and the rest of 5.8 influenced by other variables outside this research model.

The value of ECT is negative and significant means that if there is shock to the interest rate variable, foreign exchange reserve and money supply then the exchange rate variable takes

between (1 month) to (3 months) for adjustment of short term imbalance to balance in term long.

Model Stability Test

After the optimal lag value is known then the next step is to test the structural stability model. This test can be differentiated into two, CUSUM (Cumulative Sum of Recursive Residual) and CUSUMQ (Cumulative Sum of Square of Recursive Residual). Recursive residuals are the standard residues of a group of regresses where the number of samples increases from the smallest to the whole sample. Figure 3 Below is the result of the cusum test with the exchange rate variable as the dependent variable.

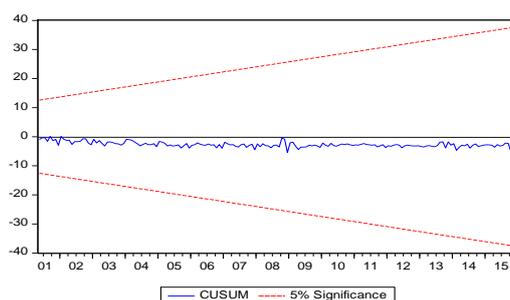


Figure 3 Testing CUSUM Test with KURS as the dependent variable

Based on Figure 3 the CUSUM test results can be explained that the plot of quantity Wr is not above the border at a significant level of 5%, the plot forms a linear line.

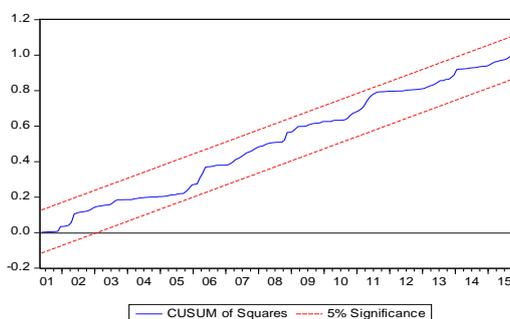


Figure 4. Testing CUSUMQ Test with KURS as the dependent variable

Figure 4. CUSUMQ test results can be explained that the plot of Sr quantity is not above the boundary at a significant level of 5%, the plot is forming a linear line. Based on the result of both model stability test above can be concluded that the regression result coefficient is stable.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

From the results of research that has been done then it can be taken conclusion that is:

1. The result of cointegration of ARDL obtained result that there is cointegration between exchange rate variable as dependent variable with interest rate, foreign exchange reserve and money supply as independent variable.

2. In the short-term analysis of interest rates have a significant and positive effect, foreign exchange reserves have a significant and negative impact, the money supply has a significant and positive impact on the value of the rupiah exchange rate in Indonesia. In the long-term analysis of interest rates have a significant and negative effect, foreign exchange reserves have an insignificant and positive effect, the money supply has a significant and negative impact on the value of the rupiah exchange rate in Indonesia.
3. Model stability test results show that the model used is stable either by using CUSUM test or CUSUMQ test.

SUGGESTION

1. The need for effective and pure monetary policy implementation, and to use the perfect interest rate indicators as a means of controlling the economy to maintain exchange rate stability, regulate the money supply, and create a source of foreign exchange reserves, and the government should avoid as much as possible the creation of new money Can eliminate the function or role of interest rates as the control of the economy.
2. The government should pay more attention to monetary policy policies, in which case Bank Indonesia should concentrate on determining the interest rate, the money supply, the source of foreign exchange reserves as a factor that greatly influences the stability of the rupiah exchange rate.
3. To the policy maker is expected that in conducting various policies should really pay attention to the concept of economic theory, because if this is ignored the policies taken do not give the maximum effect or even no effect at all on the target in target.

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