

# Snowball effect of interest rate as a control instrument on inflation targeting framework in Indonesia

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## ABSTRACT

The purpose of this study was to determine whether interest rate solely affects inflation or even has a greater impact on the monetary variables. It is very important to know the impact, by analyzing the impact on avoiding unwanted conditions. Data of research were collected during 1970 to 2013. The hypothesis testing was done using an econometric model. The main advantages of econometric models are for being able to handle the mutual dependence (interdependence). Besides that, an econometric model is an invaluable tool for understanding the workings of the economic system and so to test and evaluate policy alternatives and hypothesis testing using multiple regressions. The result of this study showed that the interest rate turns out not only as an instrument of control of Inflation Targeting Framework but cause a snowball other monetary variables further strengthen the mechanism on Inflation Targeting Framework.

## ABSTRAK

Penelitian ini bertujuan untuk menentukan apakah suku bunga mempengaruhi inflasi atau bahkan memiliki dampak yang lebih besar terhadap variabel moneter lain. Hal ini sangat penting untuk mengetahui dampak, dengan menganalisis dampak untuk menghindari kondisi yang tidak diinginkan. Data penelitian dikumpulkan selama tahun 1970 sampai 2013. Pengujian hipotesis dilakukan dengan menggunakan model ekonometrik. Keuntungan utama dari model ekonometrik adalah karena mampu menangani saling ketergantungan (interdependensi). Selain itu, model ekonometrik merupakan alat bantu untuk memahami cara kerja sistem ekonomi dan untuk menguji dan mengevaluasi alternatif kebijakan dan pengujian hipotesis menggunakan beberapa hasil regression. The dari penelitian ini menunjukkan bahwa rateturns bunga keluar tidak hanya sebagai instrumen kontrol Kerangka Target Inflasi tetapi menyebabkan bola salju variabel moneter lainnya lebih memperkuat mekanisme di Inflation Targeting Framework.

## 1. INTRODUCTION

Monetary policy made by the Monetary Authority is intended to address the issue of the economy in addition to another fiscal policy. Based on the experience, when the monetary crisis in 1998, it proved that monetary management has an important role in anticipating the impact of monetary globalization. Therefore, understanding the monetary policy and the monetary transmission mechanism and the consequences to the economy that exists in the country becomes very important.

Monetary policy by a central bank or monetary authority is intended to affect real economic activity and price transmission mechanism through the

case therefore; monetary authorities must have a clear understanding of the mechanism of transmission of the country. The transmission mechanism of monetary policy can work through a variety of channels, such as interest rates, monetary aggregates, credit, asset prices, exchange rates, and expectations (Warjiyo and Agung 2002).

The control of monetary policy is not just an easy way because it has some impacts. The trouble has been going on since the period before the crisis and negatively affected the fundamental conditions of macroeconomic policy. It accommodated various policy targets simultaneously and did not focus on one goal; Therefore, monetary policy changes re-

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quired new paradigm (Budiono 1998).

This new paradigm has been defined in law No. 23 of 1999 and Amendment 3 in 2004 as the application framework of inflation targeting framework in Indonesia. The framework States that the ultimate goal of monetary policy is to achieve the stability of the value of the IDR. Inflation target is related to the conditions of macroeconomic projection, the direction of movement and the consideration of social harm (social welfare) as the result of a policy that has already been done.

The framework of inflation is expected to create the levels of low inflation and a stable support economic growth in the short term, while in the long run economic growth influenced by technology, the level of productivity, the growth of the labor force and a conducive climate (Hutabarat 2000). Inflation targeting monetary policy in many countries has been able to lower inflation and maintain price stability at the level specified, but in Indonesia its application still not satisfying the performance (Ismail 2006).

The control of inflation targeting uses the interest rate instrument (Haryono et al. 2000), by controlling interest rates to control inflation being targeted. The mechanism of transmission occur in several possibilities such as whether by using the instrument of interest rates will only control inflation or there are other mechanisms that may occur, which will eventually weaken the mechanism or instead provide a snowball effect towards the mechanism. Monetary policy strategy is a part of the macro policies that aim to control the stability of the currency value. When the stability of the currency value is compromised, then it can be used to recover a monetary policy with a series of actions of stabilization.

According to Sriyono (2014) for 10 years after the monetary crisis, the monetary policy is set by the Government using the IFT > but, it was not quite satisfactory because the results have not been fulfilled. To understand the results, Sriyono (2014) advanced a research on the mechanism of the transmission mechanism of the IFT. The results of the study mentioned that the use of interest rate as instrument control IFT.

According to Muhammadiyah (2011) interest rates could affect exchange rates. Besides that, it can affect the exchange rate of a currency. The exchange rate can be changed if there is a change in appetite, changes in the price of imported goods and export goods, the onset of inflation, interest rate changes and the rate of return on investment as well as economic growth. In addition to, the exchange rates affect the inflation (Dewayany 2012).

Other studies also suggest that interest rates directly affect inflation (Calvo 1999).

## 2. THEORETICAL FRAMEWORK AND HYPOTHESES

The goal of monetary policy is to achieve macroeconomic stability, as well as price stability, economic growths and the job availability. All these targets are very difficult because the incidence of trade off between these variables. In order to achieve the final goal of monetary policy, Bank Indonesia implements monetary policy framework through control of interest rates (interest rate target), mirrored by the determination of interest rate (BI Rate).

Basically, there are several policy frameworks that can be used in achieving monetary policy, each monetary policy framework has characteristics in accordance with the indicators of nominal anchor that is used as a base or target between in achieving goals. The monetary policy framework has an anchor there is some transmission through exchange rate targeting, targeting monetary quantities, targeting inflation and without any clear anchors (Warjiyo and Solikin 2003).

The mechanism works changes the BI Rate until affect inflation is often referred to as the transmission mechanism of monetary policy (see Figure 1). This mechanism describes the actions the Bank Indonesia through changes to its operational target and monetary instruments affecting various economic and financial variables before ultimately influential to the end goal of inflation. The mechanism takes place through interaction between central banks, the banking and financial sector, as well as the real sector. The BI Rate changes affect inflation through various channels, including the path of interest rates, credit lines, the exchange rate, the price of an asset, and line expectations (Warjiyo 2004).

Monetary policy is based on the relationship between interest rates in the economy (which is the price of borrowing money) with the money supply to influence economic development goals, such as the control of prices (inflation and exchange rates), economic growth, and the rate of unemployment.

Meanwhile, inflation targeting regime, explicitly maintain a specific inflation rate (e.g. inflation the consumer price index) in a certain range, became popular since the early 1990s and more and more adopted by developed countries or developing countries (see Table 1).

Inflation targeting regime is one monetary policy when the central bank tried to keep inflation within the target range is announced, usually with instruments of interest rate policy. According to

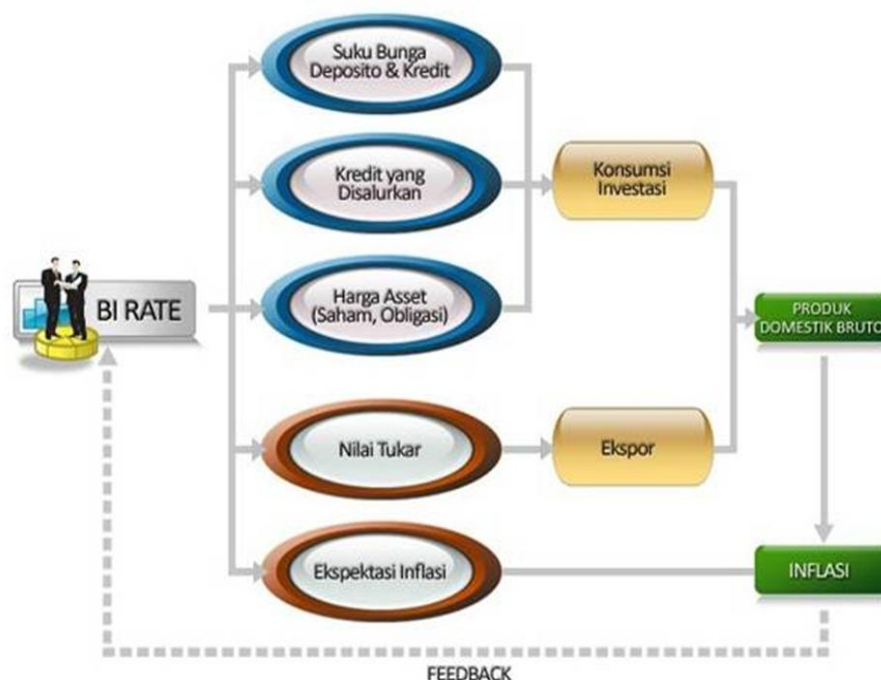


Figure 1  
Transmission Mechanism of Monetary Policy

Alamsyah and Masyhuri (2000) inflation targeting is primarily a framework (framework) in monetary policy that seeks to abolish the inflation bias of monetary policy implementation based on the discretion but within the framework of the planning target inflation to the transparent front. By their very nature are such that inflation targeting is a reflection of constrained discretion in monetary policy.

### Transmission Mechanism

The transmission mechanism of monetary policy basically describes how monetary policy is a central bank to influence a wide range of financial and economic activity so that it can eventually reach the end goal.

The transmission of monetary policy from the perspective of conventional lines through lines of credit, interest rates, the exchange rate, the price of an asset, and line expectations. The use of the instrument of interest rates in monetary inflation targeting regimes, transmission of monetary policy through the interest rate (interest rate pass-through) became one of the topics of discussion is important.

Model of interest rate pass-through has been developed since a long time, such as marginal cost pricing model that States that the change in interest rates the bank's cost of funds will be forwarded in the form of a change in bank rates to its customers, since it reflects changes in the marginal cost of banks. This model is still considered the best model to explain interest-rate pass through of interest rate

policy to the banking interest rates (Crespo-Cuaresma et al. 2006).

General equation is as follows:

$$BRN, t = \gamma + \text{of } \gamma 0 \text{ } m r n, t \quad (1)$$

When the Government decided on the policy through the interest rates it will be forwarded to the aggregate demand through three channels of transmission. First, the real interest rates affect consumption through substitution and income effects. Second, the real interest rate that determines the cost of acquiring capital goods, which affects demand for investment. Third, the policy interest rates have an effect on the nominal exchange rate and then transmitted to the real exchange rate as a determinant of foreign demand for domestic goods. These are also referred to as the monetary transmission through pass-through effects not directly from Exchange rates (Warjiyo 2004).

There are some models that can be used for the basis in determining the inflation target, including :

### Non Conservative Central Bank and Conservative Central Bank

Barro and Gordon (1983) suggested a model Non Conservative Central Bank. In the model the Barro & Gordon gives a more or less proportionate weight against the stability of inflation and output stability. Meanwhile, Rogoff (1985) suggested a model Conservative Central Bank by giving weight or more attention to stability of inflation on output stability.

**Table 1**  
**Monetary Regimes in Various Countries**

Developed Countries	Regime Monetary	Developing Countries	Regime Monetary
United States	Mixed Policy	Indonesia	Inflation Targeting
United Kingdom	Inflation Targeting+ target secondary output & employment	Malaysia	Inflation Targeting
Euro zone	Inflation Targeting	Thailand	Inflation Targeting
Australia	Inflation Targeting	India	Inflation Targeting
New Zealand	Inflation Targeting		
Canada	Inflation Targeting		
Singapore	Exchange Rate Targeting		
America Latin			
Brazil	Inflation Targeting	Korea	Inflation Targeting
Chile	Inflation Targeting	Turkey	Inflation Targeting
		China	Monetary Targeting & target basket currency
		Hong Kong	Currency Board – fixed to US\$

Source : Ascarya (2012).

**Table 2**  
**Policy Alternative**

	Non Conservative	Conservative	Accountable Model
Inflation Variance	$(x/(1+x))$	$(x/(1+x+e))$	Null
Output Variance	$(1/(1+x))^2$	$(1/(1+x+e))^2$	$(1/(1+x))$

Each of the models in question are:

The Non Conservative Central Bank:

$$Z_t = (1/2) (\pi_t - \pi^*) + (x/2) (Y_t - Y^*)^2 \quad (2)$$

The Conservative Central Bank:

$$Z_t = ((1+e)/2) (\pi_t - \pi^*) + (x/2) (Y_t - Y^*)^2 \quad (3)$$

Where

$$Y_t = \pi_e + \pi_t - \mu_t \text{ (Taylor Model)}$$

Description:

$\pi_t$  = Inflation actual,

$\pi^*$  = desired Inflation (target),

$Y_t$  = actual output,

$Y^*$  = desired Output,  $x$  = portion of weights for output stabilization,

$e$  = Extra weights for inflation,  $mt$  = other factors influencing output

From the explanation above, the comparison between the third model of inflation targeting in general are shown in Table 2.

### Relationship between Variables

#### The Relationship between Interest Rate with GDP

According to Mishkin (2008) the stability of interest rates is highly expected, because the stability of interest rates also encourage the occurrence of financial market stability so that the ability of financial markets to channel funds from people who have investment opportunities can run smoothly and productive activities of the economy also re-

main stable

In General, when interest rates are low, then more and more fund flows resulting in economic growth has also increased. So also when the interest rate is high, then the little funding that flows would result in lower economic growth (Sundjaja and Barlian 2003).

### The Relationship between GDP and Inflation

At the time of a fast growing economy, high employment opportunities created a high level of income and further raises the expenditure that exceeds the ability of issuing economic goods and services. This excessive spending will cause inflation. If the society continues to add to its expenditure then aggregate demand will come back up. To meet the growing demand, companies will increase production and cause a real national income (GDP) to rise anyway. The increase in national production exceeds the full-employment opportunities will result in a faster increase in prices (causing inflation) (Sukirno 2006).

Based on previous research, obtained that the factors that influence the formation of inflation in many countries, including Indonesia, comes from domestic and external variables are variables. These variables include gross domestic product, currency exchange rates, interest rates, money supply and economic shocks or changes in other countries (So-

likin and Suseno 2002).

Research conducted by Chetty (2006) concluded that the influence of interest rates against the investment are negative, meaning that if there is a rise in the interest rates it will decline in value of investment.

### **The Relationship between Interest Rates against the Investment**

Economists studying the investment to understand fluctuations in the output of goods and services the economy better. The Model is based on the LM – functions of simple investment associate investment with real interest rate:  $I = I(r)$ . This function asserts that the real interest rate increase lowers the investment.

Research conducted by (Chetty 2006) concluded that the influence of interest rates against the investment are negative, meaning that if there is a rise in the interest rates it will decline in value of investment.

### **Investment Relationship with Inflation**

Controlled inflation conditions will benefit create entrepreneurs, corporate profits will encourage the expansion of investment in future capacity additions both on the company or on the company's development and will ultimately speed up the creation of economic growth. Instead of a high inflation rate would have a negative impact on the economy can further destabilize social and political.

Inflation is a State of wherein oversubscribed (excess demand) of goods and services as a whole. In addition to inflation is a process of rising prices that apply generally within an economy (Sukirno 1998) in addition to inflation is also an indication of improvement in the whole price level (Mankiw 2003). According to the view of the monetarist, a major cause of inflation is excess supply of money than requested by the community. Whereas the non monetarist, i.e., Keynesian, excess aggregate demand can only occur if there is a rise in spending on consumption, investment, government spending or net exports (Gunawan 1995).

### **The Relationship of Interest Rate to the Exchange Rate of Money**

The relative interest rate changes affect investments in foreign securities that would affect the supply and demand of foreign exchange. This will affect to currency exchange rates. The perfect relationship between the relative interest rates and the exchange rate between two countries is explained by the theory of the impact Fisher International (the Inter-

national Fisher Effect-IFE). Berlianta (2005) suggests that the theory of the International Fisher Effect indicates the movement of the value of one currency compared to other countries country caused by nominal interest rate differentials that exist in the two countries.

One of the lines that are used in the transmission of monetary exchange rate line is, argues that the monetary tightening that encourages an increase in interest rates will lead to exchange rate appreciation due to the inflow of capital from abroad (Arifin 1998) two factors cause changes in exchange rates.

### **The Relationship Exchange Rates with Inflation**

United States Dollar exchange rate variables have a significant positive relationship against inflation in Indonesia. The weakening of the value of the IDR against foreign currencies caused by the debt of foreign Governments and the private sector which is bloated, result in a decrease in the price of our export goods outside the country, so that we become more export goods cheaper compared with goods from other countries.

According to the theory of relative version of the PPP said that the fluctuation of the exchange rate within a certain period will be proportional or a comparable magnitude to changes in the price level prevailing in both countries during the same period. The formulation of the theory of purchasing power Parity (Purchasing Power Parity) is formulated as follows can be relative (Yuliadi 2008).

$$R_{ab1} = \frac{(P_{a1}/P_{a0})}{(P_{b1}/P_{b0})} R_{abo} \quad (4)$$

Where:

Rab1 = exchange rate during the period 1.

Rabo = exchange rate on a period basis.

### **Framework for Thinking**

This research analyzed using Structural Equation Modeling (SEM) to find out the truth concept of theories about the factors that approach that allows the relationship between an independent variable toward dependent variable influenced other latent variables (Ghozali and Fuad 2005). The framework of this research is shown in Figure 2.

### **Equation Model**

$$Y_1 = \alpha_0 + \alpha_1 X_1 + e \quad (5)$$

$$Y_2 = \beta_0 + \beta_1 X_2 + e \quad (6)$$

$$Y_3 = \gamma_0 + \gamma_1 X_3 + e \quad (7)$$

$$Y_4 = \pi_0 + \pi_1 Y_1 + \pi_2 Y_2 + \pi_3 Y_3 + e \quad (8)$$

### **Hypothesis**

Based on the Foundation of theory and equations

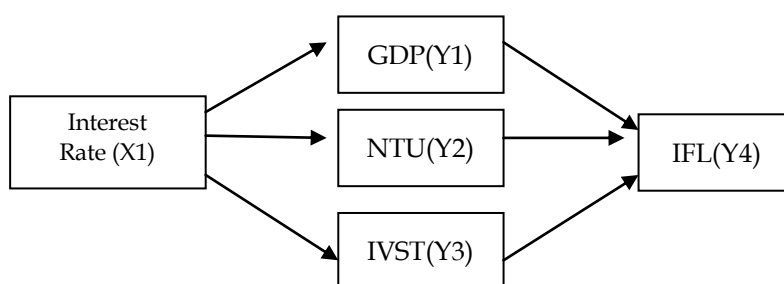


Figure 2  
Framework

Table 3  
Multicollinearity Test

Model	t	Sig.	Collinearity Statistics	
			Tolerance	VIF
1 (Constant)	4.174	.000		
ECON	-3.083	.004	.129	7.778
IVSTM	2.132	.039	.214	4.672
EXCRT	3.001	.005	.331	3.020

models are used then the hypothesis proposed is:

1.  $H_1$  = The GDP effect significantly to Inflation.
2.  $H_2$  = The Exchange Rate effect significantly to the Inflation.
3.  $H_3$  = The Investment effect significantly to the inflation.
4.  $H_4$  = The GDP, Exchange Rate and Investment effect significantly to the inflation.

### 3. RESEARCH METHOD

#### Design of Study

Based on the approach used, this study belongs to the type of quantitative research, because research departs from theory to analyze the influence between variables that are observed through a deductive approach. Therefore, this study also wants to analyze and examine the relationship between variables exogenous with endogenous variables in the regression model of structural equation so this study also classified in this type of research explanatory (Sarmanu 2009) and including a role in the type of research causality (Kuncoro 2007).

#### Research Data

The data will be used in this study is a secondary data collected from several agencies, institutions, agencies and official institutions, such as the Central Bureau of Statistics, Bank Indonesia and from IFS (international financial statistics. The data used are annual data, from the period of 1970 to the 2013.

#### Variables and Measurements

##### 1. SBI interest rate

SBI is securities issued by Bank Indonesia, and one of the components that are used by the Government to control the amount of money in circulation. The data used in this study is the annual interest rate reported by Bank Indonesia and IFS began in January 1970 – December 2013 in units of percent (%).

##### 2. Economic growth

Economic growth is an increase in the ability of an economy to produce goods and services. Economic growth is usually measured using data on gross domestic product (GDP) or per capita income. The data used in this study to find out the economic growth is the annual GDP data released by the Central Bureau of statistics (BPS) from January 1970 – December 2013 in units of percent (%).

##### 3. The exchange rate of IDR

Exchange rates (exchange rate) is the exchange rate of the currency of a country with the currency of other countries. Exchange rate data in this study is the currency exchange rate Indonesia (IDR) against the United States (dollar) by using a direct quote was stated by IDR/USD (Indonesia IDR/Dollar U.S.). The data used is the Middle exchange rate (the rate that it was concluded based on the results of the data exchange buy and sell rates) in annual foreign exchange trading recorded by Bank Indonesia and the BPS as of January 1970 – December 2013 with a unit of IDR per Dollar.

##### 4. Investment

The data used was investment sum of the invest-

**Table 4**  
**Autocorrelation Test**

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.471 <sup>a</sup>	.221	.163	11.14907	1.748

a. Predictors: (Constant), EXCRT, IVSTM, ECON

b. Dependent Variable: IFLTIN

**Table 5**  
**Heterocedasticity Test**

Correlations

			EXCRT	IVSTM	ECON	ABS_RES
Spearman's rho	EXCRT	Correlation Coefficient	1.000	.668**	.698**	-.180
		Sig. (2-tailed)	.	.000	.000	.242
		N	44	44	44	44
	IVSTM	Correlation Coefficient	.668**	1.000	.946**	-.055
		Sig. (2-tailed)	.000	.	.000	.722
		N	44	44	44	44
	ECON	Correlation Coefficient	.698**	.946**	1.000	-.124
		Sig. (2-tailed)	.000	.000	.	.423
		N	44	44	44	44
	ABS_RES	Correlation Coefficient	-.180	-.055	-.124	1.000
		Sig. (2-tailed)	.242	.722	.423	.
		N	44	44	44	44

\*\* Correlation is significant at the 0.01 level (2-tailed).

ments which have been realized and PMDN Investment Foreign Direct Investment that has been realized. PMA investment modified used to be denominated in IDR after it recently added. The data used is the yearly data issued by the BPS and the Bank began a period of annual Indonesia January 1970 – December 2013 with units of the IDR.

#### 5. Inflation rates

Inflation is the rate of increase in the price of public goods that occur on an ongoing basis. Inflation rate data used in this research is the inflation rate based on the consumer price index (CPI) issued by IFS, BPS and Bank Indonesia's yearly from January 1970 – December 2013 in units of percent (%).

#### Data Analysis Techniques

Research studies using time series data often arises the problem of the data stationary used in the study. Stationary test required for macroeconomic variables are generally non-stationary, the data time series supposedly has an average and high variant, when the stationery test was not done that it will affect the behavior of actual economic variables (Widarjono 2007).

The purpose of this test is that the mean stationary stable and random error = 0, so that the ob-

tained regression models with predictive power that is reliable and no spurious (Maddala 1992).

## 4. DATA ANALYSIS AND DISCUSSION

### Analysis of Results

#### Classical Assumptions Test Results

##### Multicollinearity Test

The results of the analysis in Table 3 shows that VIF Exchange rate and Investment less than 5 not the case multicollinearity, while for the variable Economy Growth has VIF more than 5, so then the conceptual research of the multicollinearity does not occur.

##### Autocorrelation Test

Analysis of the results obtained in Table 4 values Durbin Watson 1622, according to Table Durbin Watson Standard that for n = 44 and k = 3 and value dl = 1.3749 and du = 1.6647. because the value is larger than the Standard Table Durbin=Watson, so the research data used in areas not yet definitely.

##### Heterocedasticity Test

Based on the results of the analysis of Table 5, indicates that all variables have the value of sig > 0.05, this indicates that the variables examined are not going heterocedasticity.

**Table 6**  
**Stationary Test Results**

**Interest Rate**

Lag	Autocorrelation	Std. error	Box-Ljung Statistic		
			Value	Df	Sig
1	-0.317	0.158	4.019	1	0.045
2	-0.437	0.156	11.895	2	0.003

**Economic Growth**

Lag	Autocorrelation	Std. error	Box-Ljung Statistic		
			Value	df	Sig
1	-0.495	0.158	9.811	1	0.002
2	0.021	0.156	0.021	2	0.007

**Exchange Rate**

Lag	Autocorrelation	Std. error	Box-Ljung Statistic		
			Value	Df	Sig
1	-0.595	0.158	14.173	1	0.000
2	-0.020	0.156	14.190	2	0.001

**Investment**

Lag	Autocorrelation	Std. error	Box-Ljung Statistic		
			Value	Df	Sig
1	-0.549	0.158	12.103	1	0.001
2	0.093	0.156	12.460	2	0.002

**Inflation**

Lag	Autocorrelation	Std. error	Box-Ljung Statistic		
			Value	Df	Sig
1	-0.549	0.158	12.103	1	0.001
2	0.093	0.156	12.460	2	0.002

**Stationary test****Interest Rate**

Based on the results of the analysis of Stationary test for all variables in Table 6, indicating that the data are stationary after the lag 2.

**Results Analysis of Research inter-Variable****The Relationship between the Interest Rate and Economic Growth**

Based on the results of the analysis in Table 6 shows that economic growth is influenced by interest rates, the results of this research supported by (Udoka and Anyingang 2012).

**The relationship between the Interest Rate and Exchange Rate**

Based on the results of the analysis in Table 6 shows that influential interest rates do not significantly to exchange rates, these results are in contrast to research Arifin (1998), he argues that the monetary tightening that encourages an increase in interest rates will lead to exchange rate appreciation due to the inflow of capital from abroad. These results show that there is interest in Indonesia is not interesting enough for foreign investors so that foreign investors do not invest in the financial sector or the real sector.

**The relationship between the Interest Rate and Investment**

Analysis results in Table 6 shows that the relationship between interest rate and investment is a significant and negative it indicates that the greater the interest then the investment value will go down and vice versa.

**Discussion.**

The problem of inflation experienced by each country, because of the impact of the rise in inflation can affect to all sectors. The problem of how to reduce inflation has been a central issue among policy makers since the 1970s. Although available data show that the Nigerian economy has on the average experienced moderate inflation in the pre-SAP period; the unfavorable consequences of inflation have since assumed an intolerable dimension (Afolabi and Efunwoye 1995).

This research is different from the research by (B Imimole and Enoma 2011) that exchange rate depreciation may not directly control inflation, but it helps to restructure the price mechanism of both import and export, such that Naira depreciation subtly tends to moderate prices in Nigeria, especially imported price inflation. It is therefore suggested that policy makers should not totally rely on this instru-



ment to control inflation, but should use it to complement other macro-economic policies. More so, policies should be put in place to increase domestic production of export commodities, which are currently short-supplied. This proves that each country had different policies depending on the characteristics of the fundamental conditions of the country

Based on previous results, best done by Sriyono (2014) suggest that the determination of the interest rate as an instrument in the inflation Targeting Frames is in compliance because of significant direct and positive effect against inflation. In this study indicated that interest rates were also significantly influential directly and positively towards the next stage of the exchange rate, the exchange rate effect is significant and positive against inflation. On the other variables, also have direct interest rates significantly and positively towards the next stage of economic growth and economic growth significant direct and positive effect.

Based on these results it turns out that the use of interest rates as inflation in the control of inflation targeting frames produce a snowball effect, other than interest rates affect directly against inflation also affect exchange rates and economic growth. And in the end Exchange rates and economic growth direct effect against inflation. This mechanism also gives one the findings that policy bank central is using interest rate as control on the Inflation Frame Targeting have a huge significance because it give a snowball effect on mechanism Inflation Frame Targeting.

This research is different from the research by Imimole (2011) that exchange rate depreciation may not directly control inflation, but it helps to restructure the price mechanism of both import and export, such that Nigeria depreciation subtly tends to moderate prices in Nigeria, especially imported price inflation. It is therefore suggested that policy makers should not totally rely on this instrument to control inflation, but should use it to complement other macro-economic policies. More so, policies should be put in place to increase domestic production of export commodities, which are currently short-supplied. This proves that each country had different policies depending on the characteristics of the fundamental conditions of the country.

Similar studies have also been conducted by Rusdiana (2011) using the SBI interest rate as the independent variable and prove influential SBI interest rates significantly to exchange rates. According to Imimole (2011) BI rate a negative and significant effect against the movement of the ex-

change rate USD/IDR, which means that if the level of the BI rate increase then the direction of movement of the exchange rate USD/IDR will decrease (Dauda 2011).

The phenomenon of inflation in Indonesia is not a short-term phenomenon and that happens by circumstantial only, but as regards its common in other developing countries, inflation in Indonesia is more on long-term inflation problem because there are still structural barriers in the economy of the country. This shows that the existing inflation in Indonesia is not absolutely fully caused by hereditary just monetary but also the non-monetary.

The weakening IDR exchange rates made the price of imported goods is increasing due to the required number of dollars more to get the import of goods, as is the case with the goods with the production of the imported raw materials. It will also raise the price of domestic production that could culminate in the onset of inflation. Depreciation of the exchange rate of IDR against foreign currencies also resulted in a rise in the value of exports. The price of domestic goods cheaper overseas parties interest to increase the number of requests going to the item so that the price will go up slowly and cause inflation. (Endri 2008).

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Based on the results of previous studies and current research then discovered that using interest rates as a policy control on Inflation Frame Targeting turns out not only has a single goal but cause a snowball effect that ultimately the more reinforcing mechanism of use interest rates as a policy controls on Inflation Frame Targeting.

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