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ANALISIS PENGARUH INFLASI DAN TINGKAT BUNGA INVESTASI DI INDONESIA

ANALYSIS OF INFLATION EFFECT AND INTEREST RATE LEVEL OF INVESTMENT IN INDONESIA

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Abstrak

Tujuan dari penelitian ini adalah untuk mengetahui dan menganalisis pengaruh inflasi terhadap investasi dan suku bunga terhadap investasi di Indonesia dari tahun 2006 hingga 2015. Jenis penelitian ini adalah deskriptif kuantitatif dan pengambilan sumber data dengan teknik studi literatur. Metode analisis yang digunakan dalam penelitian ini adalah analisis time lag regresi. Berdasarkan data yang dianalisis dalam penelitian ini terdapat beberapa kesimpulan yaitu inflasi berpengaruh signifikan terhadap investasi demikian juga suku bunga berpengaruh signifikan terhadap investasi.

Kata kunci: inflasi, suku bunga, investasi

Abstract

The purpose of this study was to find out and analyze the effect of inflation on investment and interest rates on investment in Indonesia from 2006 to 2015. This type of research is quantitative descriptive and data source retrieval with literature study techniques. The analytical method used in this study is regression time lag analysis. Based on the data analyzed in this study there are several conclusions as follows: 1) inflation has a significant effect on investment 2) interest rates have a significant effect on investment.

Keywords: Inflation,Iinterest rate, Investation

INTRODUCTION

Economic policies sometimes contradict each other (trade-offs), in the sense that if an economic policy is applied to achieve one of the targets, the result of this policy is to keep other targets away. For example, to encourage economic growth, it can increase general prices or cause inflation.

The reasons a country uses an IT (inflation targeting) framework are: first, inflation is the only economic variable that can be affected by monetary policy in the long run. Second, the belief that low and stable inflation in the long term is very important for the achievement of other macroeconomic targets, including in this case is economic growth (Barro, 1995). This is following the results of research by Maknun (1995), Satria (2012), and Asnawi and Fitria (2018) which state that inflation harms economic growth.

Theoretically, the relationship between inflation and economic growth in economic development theory can be outlined as follows. In developing countries, inflation occurs as a result of policies to reduce the unemployment rate and the creation of effective demand in the economy. Because the economic output of developing countries is not able to respond to the increase in employment rate and effective demand, inflation will occur. In other words, based on this view, inflation in developing countries is more of an aggregate supply phenomenon (Basu, 2000). Based on the theory of economic development, inflation is the result of problems in economic development that cause the output to be unable to respond to increases in effective demand. Currently, Indonesia is one of the developing countries that apply inflation targeting as a framework for monetary policy. On the other hand, Indonesia is a developing country that has supply-side problems. As a consequence, efforts to achieve the inflation target in the application of the Inflation Targeting framework in Indonesia may become ineffective due to the phenomenon of structural inflation in the economy. This condition becomes interesting for further analysis, especially for the case of Indonesia. This is following the results of Andreado's research (2018) which states that inflation harms investment, but this is contrary to the results of research by Dewi and Cahyono (2016) which state that inflation does not affect investment.

One of the economic problems that concern economic thinkers is inflation because inflation is used to measure or view economic stability in a country. One of the factors that cause economic turmoil which is important and feared by the government is inflation because it can adversely affect the structure of production costs and the level of welfare. One of the basic causes of inflation is the gap between excess aggregate demand in an economy that cannot be balanced by the aggregate supply in that economy. For Indonesia, high inflation must be avoided so that the momentum for healthy development and enthusiasm in the business world can be maintained (Boediono, 2013).

Monetary policy is one of the government policies that can affect economic activity. If the government views that the objectives of economic development are not as expected, for example, there is high unemployment, inflation, or deficits in the balance of payments, then there is a need for stabilization measures to eliminate and reduce unemployment, reduce inflation and the balance of payments deficit. One of the economic policy tools is the easy money policy, which is expected to create convenience in obtaining bank credit for investment. Then what is created will result in an increase in demand for investment goods and also consumer goods. This increase in demand will result in a tendency to increase in general prices or lead to inflation. Likewise, the policy to reduce the inflation rate can cause a delay in the growth rate, by implementing a tight money policy. This tight monetary policy will be marked by a fairly high increase in bank interest rates. Interest rates that are high enough will reduce investment and weaken the rate of economic growth. This is in accordance with the research results of Iswardono (1999) and Dewi and Cahyono (2016) which state that interest rates have a negative effect on investment, but contrary to the research results of Andreano et al. (2018) which state that interest rates have no effect on investment.

Investment can provide employment opportunities for the community so that unemployment decreases. The country will develop dynamically if the investment spent is greater than the depreciation of production factors if the opposite happens then the country will experience stagnation. In developing countries where population levels are high have a relatively smaller investment to population ratio.

In macroeconomic investment is a component of national income so that the influence of a country's investment can be viewed from national income. The investment itself is influenced by several factors including the return of capital and interest rates. High-interest rates make investments not attractive or profitable because some of the capital for investment will be reduced. An understanding of interest rates by investors can help the accuracy of investment returns because the interest rate has consequences for the number of funds used in investment projects.

Minister of Finance Bambang Brodjonegoro (2016) states at detik that Indonesian economy must still be aware of several global economic challenges. Risks of the global economy that have a direct impact on Indonesia: 1) China's slowing economy is predicted to grow by only 7%. This is because China is a trading partner that makes the demand for raw commodities weaker and influences other countries 2) low commodity prices which disrupt the performance of Indonesian exports 3) capital inflows into Indonesia are influenced by the decision of the Fed (Central Bank of the United States) which will raise the level of interest rate this year.

In line with the Fed's decision to maintain interest rates as a result of monetary policy easing due to the global economy which is not yet stable, Bank Indonesia noted that credit and deposit rates have decreased. Because the decline in interest rates on deposits causes more people to hold money than investing, especially lending which has decreased. This will increase the money supply, especially during Ramadan and Eid. The money supply will affect the investment interests of investors who will encourage investment. The amount of investment will increase economic growth due to increased output and rising interest rates on deposits that make people prefer to save money rather than to make transactions. This is following the theory of supply of money (supply money) according to Keynes. Changes in interest rates affect the amount of investment in a country, especially on portfolio investment. Changes in interest rates also affect the demand and supply of money. The interest rate set by Bank Indonesia is the benchmark for deposit and loan interest rates.

Increased investment for a country can form capital that can not only increase production factors but also provide new jobs for the community so that it can reduce unemployment rates. A country will develop dynamically if the investment spent is greaterthan the value of depreciation of production factors. In the short term, an investment can affect the welfare of the country's economy. If the opposite happens, then the country will stagnate. These conditions can cause unemployment in relatively large amounts.

In addition to creating new jobs, an investment can also develop the import substitution industry to save foreign exchange, encourage the development of the non-oil export goods industry to obtain foreign exchange, and help develop underdeveloped regions as financing used to improve infrastructure.

If a country's investment is weak, it will reduce the inflow of funds that can reduce factors of production in various sectors, thereby reducing the country's total production capacity. This will cause a problem, namely the large number of unemployed people due to reduced production targets so that there can be a reduction in the number of workers as another factor of production.

Interest rates significantly affect economic growth. This is due to lower interest rates which will reduce the level of business risk and increase credit so that the real sector increases and economic growth also increases.

Not only related to the amount of money in circulation, but interest rates are also factors that influence changes in inflation. That is because the interest rate set by Bank Indonesia is a signal for banks to set interest rates on savings, deposits, and credit. Bank Indonesia will generally raise interest rates if future inflation is expected to exceed the target set. Inflation is a condition where the circulation of money is greater than the circulation of goods. Generally, this is triggered by rising prices of goods, decreasing levels of real income, weakening of aggregate consumption, and the disrupted export-import process.

From the background description of the problem that has been described, the researcher will analyze inflation effect and interest rate level of investment in Indonesia.

LITERATURE REVIEW

Investment

According to Murni (2013: 57) investment is defined as expenditures made by the business sector or private entrepreneurs (RTP) and can also be by the government (RTN) to purchase capital goods or production equipment. The aim is to replace or add capital goods in the economy that will be used to maintain or increase the amount of production in the future.

According to Noor (2009: 4) investment is the activity of allocating or investing resources (resources) now (now) in the hope of getting benefits in the future (future). Meanwhile, according to Orugman and Obsteild (2005) in Ahmad's (2011: 47) investment is part of the output used by private companies to produce output in the future.

Based on the above understanding, it can be concluded that investment is an activity of investing some funds for activities that produce goods or services in the hope of earning a profit.

Marginal Efficiency of Capital Theory

The marginal efficiency of the capital theory is used to decide on an investment done or not depends on the comparison between the expected amount of profit and the cost of using the funds (interest rate). If the expected profit is greater than the interest rate, then the investment is carried out. If the expected profit is less than the interest rate, then the investment cannot be carried out. And if the expected profit is the same as the interest rate, the investment may be carried out and may not be under investor decisions.

Inflation

According to Sukirno (2000: 232) inflation as a percentage of the speed of price increases in a certain year, it is usually used as a measure to show the extent of the economic problems faced. In industrialized countries where inflation is generally sourced from one of the two combined data problems, namely 1) the level of aggregate expenditure that exceeds the ability of companies to produce goods or services 2) workers in various economic activities ask for wage increases.

Based on the above understanding, it can be concluded that inflation is the gap between the amount of money in circulation and the goods causing the increase in prices are influenced by various factors in economic activity.

Fisher's Theory

Fisher's theory suggests that an increase in excessive money supply can drive price increases. A large amount of money circulating in the community has triggered the consumptive nature of society. If this is not matched by an increase in the number of goods produced, this will lead to a scarcity of goods. The scarcity will cause price increases (inflation rises). So the money supply has a positive effect on inflation, in this case, inflation is caused by many demands (demand for full inflation) (Akbar, 2012: 5).

Interest rate

The interest rate is the price that the borrower must bear for the funds that have been used. Interest rates are divided into two, namely:

1. Nominal interest rates
   This interest rate represents a number of rupiah for every one invested. This interest rate is a value that can be read in general.
2. Real interest rates
   This interest rate has experienced a correction due to inflation. This interest rate is the nominal interest rate minus the inflation rate.

The Effect of Interest Rates on Investment

Investment is influenced by the interest rate. If the interest rate is higher than the rate of return on capital, the planned investment is not profitable. Therefore, the company's plan to invest will be canceled. The accelerator theory states that when aggregate output increases, the net investment becomes positive (Immamudin, 2008) in Widarjono (2013: 226). Changes in interest rates will affect the level of investment and consumption which has an impact on the amount of money held by the public (Pohan, 2008) in Nopirin (2014: 50).

The Effect of Inflation on Investment

Inflation has good or bad effects depending on the severity of inflation or not. Low inflation can stimulate the economy because it can increase national income, people are more enthusiastic about working, saving, and investing. High inflation will cause people to be discouraged from working because their fixed wages cannot keep up with their needs due to rising prices for goods and services so that their lives are getting worse from time to time. Not only that, but high inflation will also decrease people's desire to invest due to the decreasing value of the currency. Inflation will cause an increase in interest rates, resulting in reduced investment in a country.

Research Variables and Operational Definitions

To reduce and avoid confusion in the discussion, it is necessary to provide an operational definition or definition of each of the variables discussed, these variables are:

1. Interest Rate (INTEREST) is the annual interest rate (BI Rate) from 2000-2015 of SBI in percent.
2. Inflation (INF) is the annual inflation rate from 2000-2015 in percentage units.
3. Investment (INV) is the annual investment rate from 2000-2015 in rupiah units.

RESEARCH METHODS

The study was conducted using a literature study. This literature study method is collecting data by conducting a theoretical study of the books, literature, notes, and reports of Bank Indonesia SEKI that has to do with the problem to be solved.

Time Lag Regression

As a consequence of using dynamic models with periodic data (time series), the effect of unit changes in explanatory variables is felt over several periods (Gujarati, 2007). In other words, the effect of a change in a possible explanatory variable can only be felt after a certain period (time lag). This lag (time difference) can occur for several main reasons (Gujarati, 2007), as follows:

1. Psychological reasons, where people do not immediately change their habits when there is a change in something else. For example: when prices increase, people do not immediately reduce their consumption because this consumption is related to their consumption patterns.
2. The reason technology encourages people to hold back or postpone current consumption, to obtain goods at a lower price as a result of the emergence of new output products.
3. Institutional reasons, which involve administrative and contractual matters, cause new people to make decisions after the end of the contract or agreement period.

Time lag regression analysis is used to determine the effect between the money supply and the current and previous year interest rates on inflation and investment. The time lag regression formula is:

$Y = \alpha + b1Xt + b2Xt\text{-}1 + e$

(Iskandar, 2010: 140)

Where, Y = dependent variable

α = constant

Xt = Current period independent variable

Xt-1= The independent variable for the previous period

e= error term

RESULTS AND DISCUSSION

Influence of Inflation on Investment

Based on the calculations that have been done, the normality test results obtained with Kolmogorov Smirnov (K-S) show results> 0.05 which is 0.457, which means that the data is normally distributed.

For the heteroskedasticity test showed sig> 0.05 which is equal to 0.465 then the data is not heteroscedasticity or the data used in this study is similar. Whereas the autocorrelation test showed that the results were around -2 and 2 which was equal to 0.316, meaning there was no autocorrelation. As for the F test, it showed a significant result of 0.038.

In the time lag regression analysis, the results shown in the form of a formula are as follows:

INV = -0.039 - 0,184Xt + 0,878 Xt-1 + 0,05

with a significance of 0.038 and 0.047 <0.05, it means that there is a significant influence of inflation on an investment.

Effect of Interest Rates on Investment

Based on the calculations that have been done, the normality test results obtained with Kolmogorov Smirnov (K-S) show results> 0.05 which is 0.694 means that the data is normally distributed.

For the heteroskedasticity test showed sig> 0.05 which is equal to 0.092 then the data is not heteroskedasticity or the data used in this study is similar. As for the autocorrelation test, the results are around -2 and 2, which is equal to 0.263, meaning there is no autocorrelation. As for the F test, it showed a significant result of 0.09.

In the time lag regression analysis, the results shown in the form of a formula are as follows:

$INV = -0,62 - 0,257Xt + 0.74Xt\text{-}1 + 0,05$

with a significance level showing results of 0.043 and 0.047 <0.05, it means that there is a significant influence of the interest rate on investment.

Conclusion

Based on the results of the analysis and discussion it can be concluded that:

1) The results of calculations that have been done show that interest rates harm investment. This result is following the research results of Iswardono (1999) and Dewi and Cahyono (2016) which state that the minimum wage affects the absorption of labor in the manufacturing sector. Investment is influenced by the interest rate. If the interest rate is higher than the rate of return on capital, the planned investment is not profitable. Therefore, the company's plan to invest will be canceled. The accelerator theory states that when aggregate output increases, net investment becomes positive. In raising and lowering interest rates, one must side with and prioritize the welfare of the domestic people (Kurniasari, 2011). Monetary policy is one of the government policies that can affect economic activity. If the government views that the objectives of economic development are not as expected, for example, there is high unemployment, inflation, or deficits in the balance of payments, then there is a need for stabilization measures to eliminate and reduce unemployment, reduce inflation and the balance of payments deficit. One of the economic policy tools is the easy money policy, which is expected to create convenience in obtaining bank credit for investment. Then what is created will result in an increase in demand for investment goods and also consumer goods. This increase in demand will result in a tendency to increase in general prices or lead to inflation. Likewise, the policy to suppress the inflation rate can cause a delay in the growth rate, by implementing a tight money policy. This tight monetary policy will be marked by a fairly high increase in bank interest rates. Interest rates that are high enough will lead to lower investment.

2) The results of calculations that have been done show that investment is influenced by the interest rate. If the interest rate is higher than the rate of return on capital, the planned investment is not profitable. Therefore, careful planning is needed when you want to invest.

Suggestion

Based on the results of research and discussion, the suggestions that can be given are:

1. Bank Indonesia is expected to be aware of the emergence of global risks that can affect inflationary pressures and macroeconomic stability. For this reason, Bank Indonesia must coordinate with the government in observing and observing developments and economic prospects globally, regionally and domestically to maintain economic stability in the medium term.
2. Bank Indonesia is expected to know global economic developments to anticipate the increase in interest rates. The government

is expected to be able to reduce interest rates so that there is no decline in the value of the investment that can support the macroeconomy.

3. The Government in this case Bank Indonesia which has a monetary authority is expected to maintain the stability of the money supply and the interest rate in the community. Thus, each period remains stable because both are very important monetary instruments in controlling economic stability.

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