The Influence of Inflation towards Unemployment in Indonesia

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Abstract
The purpose of this research is to know the level of significance of inflation against unemployment in Indonesia year of 2003-2015. This study used a Simple Linear regression analysis method. The research results reveal that the value of F is 1.771. The conclusions of these studies mentions that variable inflation do not have significant influence of unemployment in theory Curve Phillips as indicated by higher levels of probability values are compared with the level of significance (α = 0.05). In addition, the impact of which is demonstrated by the dependent variables independent of the variable indicated by the value of R2 at the rate of 0.372 representing 37.2%, 62.9% leaving from the impact is affected by external factors of this research

Keywords: Inflation, Unemployment, Phillips theory

Introduction
In macro-economic indicators there are three main things that became a staple of economic problems of the country, among others, namely economic growth, inflation and unemployment. In economic growth can be seen, if the growth rate is positive it can be said that the economy of the country concerned is quite good, but conversely, if the number of negative economic growth then the economy of the country in question in a State that is not good enough.

Basically inflation is not always not expected, if a country can ' manipulate ' inflation well then any profit can also be obtained, for a country with an inflation rate of less than 4% are able to trigger the growth of aggregate supply, because rising prices would encourage producers to increase output. But if inflation is allowed to casually then some problems will emerge, among others, slowing economic growth, dwindling passion for investors in these countries invest in real income, the income distribution gap slumped, and others.

Unemployment is often a problem of the economy because of the existence of unemployment, productivity and people's income will be reduced so that it can cause the incidence of poverty and other social problems. As for the cause of unemployment in general it occurs, such as the number of labor force or job seekers are not proportional to the number of jobs that exist which are able to subjugate them.

A scientist, A. W. Pallips said that there was a link between the two indicators of macroeconomic issues, namely inflation and unemployment. And between the two principal problems these macroeconomic, thinks there is a correlation between
negative, meaning a State of being trade off against the victim, or where to be able to maintain economic stability, the country must choose, namely high inflation with low or otherwise unemployed.

Research conducted by Nando on 2005 researching on the influence of inflation against the unemployment rate. The variables used of this study are inflation and unemployment. The model used the coefficient correlation Pearson product moment or simply called the coefficient of correlation. This study completely utilizing the statistical data obtained from 1987 to 1996 period BPS. In this study tried to observe the influence on inflation rate for the level of unemployment in Indonesian at the time before and after the crisis. The existence of the relationship of inflation with unemployment i.e. curve Phillips where the existence of the relationship upside down (trade-offs) between the inflation with unemployment levels. When inflation is high, then the unemployment rate is low. And vice versa, when inflation is low, then the unemployment rated high. From the results of the research of the relationship between inflation with unemployment levels of the test statistic Z count is greater than the Z table then Ho accepted. That is, there is not relationship between the inflation rates for the level of unemployment. Thus, in the period before and during the economic crisis the inflation rate does not affect the level of unemployment in Indonesian.

**Literature Review**

**Inflation**

Inflation is the trend of rising prices of goods and services in general are taking place continuously. If inflation increases then prices of goods in the country are experiencing increases. The rise in the price of goods is equal to the fall in the value of the currency. Thus inflation can be defined as a decline in the value of the currency against the value of the goods and services in General.

Inflation is usually caused by 3 things: Pull request (excess liquidity, money or Exchange), the second is the insistence (pressure) production and distribution (the lack of production and including a lack of distribution) and the third is a mix of inflation (Inflation Mix).

**Quantity Theory**

This is the theory of classical theory. According to this theory because the rise in the price of goods in general is likely will lead to inflation, there are three: the circulation of money or the speed of the transfer of money from one hand to the other so quickly (too consumptive society), too much money is printed and released to the public, and the fall in the number of national production.

**The Theory of Keynes**

This theory States that inflation caused the community living outside the limits of the ability of economic. Inflation occurs because aggregate spending is too large. Therefore, a solution that should be taken is to reduce the number of road expenditure aggregates (reduces government spending or by raising taxes and tight money policies).

**The Theory of Structural**

This theory sheds light on the causes of the inflation that comes from the stiffness structure of the economy, in particular the power to supply foodstuffs and goods exports. Because of the structural reasons for the increase in the production of goods is too slowly compared to its economic growth, so as to raise the price of food ingredients and the scarcity of foreign exchange. Due to the next is the increase in the prices of other goods, so a relatively prolonged inflation occurs when the
construction sector producing foodstuffs and industrial goods exports are not addressed or added.

**Unemployment**

Sukirno, unemployment is among the situation where someone who belongs in the work force wants to get a job yet but in achieving it. According to Payman J. Simanjuntak, unemployment is a person who is not employed aged workforce not working at all or working less than two days during the week prior to enumeration and try to get a job.

There are two theories that posited about unemployment reduction are different, Classical Theory with the theory of Keynes. The classic theory, he explains there are two reasons that cause the onset of unemployment:

1. Wage levels of Rigidity. States-unions are not willing to accept a lower wage level, when they are willing to accept a lower wage rate, then the demand for labor will increase, so that unemployment can be lowered.
2. The rigidity of both parties emerged from the large employers, which increase the power of a monopoly, so they are more freely determine the level of market prices.

**Relationship Inflation and Unemployment with the Theory of Phillips**

A.W. Phillips describes how the relationship between the distributions of inflation with the unemployment rate is based on the assumption that inflation is a reflection of increased in aggregate demand. With soaring demand aggregate, then in accordance with the theory of demand, if demand goes up then the price will go up. With the high prices (inflation) then the request to meet the manufacturers increase production capacity by adding manpower (manpower is the only input that can increase output). The result of the increased demand for labor then with rising prices (inflation) then, unemployment reduced.

**Research Method**

In this study, researchers use quantitative data, in accordance with its name, many are required to use the numbers, ranging from data collection, interpretation of the data, as well as the appearance of the result is (Arikunto, 2002:10). This research uses a variable that is composed as follows:

1. The dependent Variables: unemployment
2. Independent Variables: inflation.

In this study data collected using secondary data where data are secondary data obtained from the other party (already available) data obtained in the form of so and has been processed by other parties, which are usually in the form of publications. The data type used is the time series (runtun time) from 2003-2015. Source data obtained from the Central Bureau of statistics (BPS) and Bank Indonesia (BI). Such data include the following:

1. Inflation
2. Unemployment

**Results and Discussion**

**Simple Regression Analysis**

Simple regression is based on a functional or causal relationship of one independent variable with a single dependent variable (Sugiyono, 2011:261). Based on the processing of data with the help of the program SPSS Statistics 17.0 simple regression results are obtained as follows:
The data processing results in a simple linear regression model are as follows:

\[ Y = 7,568 + 0,042 \times X \]

**Description:**
- **Y**: Unemployment
- **a**: Constant
- **b**: Regression Coefficients
- **X**: Inflation

The interpretation of the model:
- a. **Constant** (a) = 7.568 indicates prices constant, where if the value of the variable X = 0, then the unemployment of 7.568.
- b. **Inflation Coefficient** (X) of 0.042 stated that any increase in inflation then unemployment will also increase of 0.042.

**F-Test**
According to Ghozali (2011; 98) test statistic F basically indicated whether all non-independent or variable are included in the model have the same influence together-dependent variables against/bound. The results of the calculation of the test F in this research are:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>5.448</td>
<td>1.771</td>
<td>.210a</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>11</td>
<td>3.076</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12</td>
<td>39.280</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table above shows that the value of F is calculated with a significant rate of 0.210 1.771. While \( F_{table} \) on a confidence level of 95% (α = 0.05) was 4.84. Because both the calculation of \( F_{table} \) then count < H0 are received and based on significant, visible on a significant column namely 0.210. 0.210 probabilities it will mean more than 0.05 so Ho accepted. This means that there is not positive and significant influence of free variables inflation against unemployment.

**T-Test**
According to Ghozali (2011; 98) statistical T test basically shows how much influence one explanatory variable/independent individually in the dependent variable explained. T test results of this research are:
Table 3. T-test results.

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>7.568</td>
<td>.609</td>
<td>12.432</td>
<td>.000</td>
</tr>
<tr>
<td>X1</td>
<td></td>
<td>.042</td>
<td>.032</td>
<td>.372</td>
<td>1.331</td>
</tr>
</tbody>
</table>

* Denotes dependent variable: Y

Partially influence can also be known by comparing the significance probability value in the table research with (α)-5%. Non-influential variables significantly if the value is sig. smaller 0.05 table.

Based on the inflation variables $t_{\text{count}}(X)$ is 1.331 $t_{\text{table}}$ 1.812 value and then $t_{\text{count}} < t_{\text{table}}$ (1.331 < 1.812) and significant value 0.210 > 0.05 then $H_0$ accepted, so that it can be concluded that partially there is no significant influence of the independent variables inflation against unemployment.

**Determination Test**

According to Arikunto (2010; 239) influence the determination of the coefficients reflected the magnitude of the change in the independent variable on the dependent variable changes run jointly, with the aim to measure truth and goodness of the relationships between variables in the model used. The determination of the test results of this research is:

Table 4. The result of Determination Test.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.372a</td>
<td>.139</td>
<td>.060</td>
<td>1.75375</td>
<td>.139</td>
<td>1.771</td>
<td>1</td>
<td>11</td>
<td>.210</td>
</tr>
</tbody>
</table>

* a. Predictors: (Constant), X1

Based on the above table it can be seen that:

1. $R = 0.372$ means the relationship between a variable inflation (X) against unemployment of 37.20%.
2. R Square of 0.139 13.90% variable mean unemployment can be explained to inflation. While the rest can be explained by other variables not examined by this study.

Standard errors of estimated mean (standard deviation) to measure the variation of the value predictable. In this research the standard deviation of 1.75375. The smaller the standard deviation means the better the model.

**The Influence of Inflation Against Unemployment in Indonesian 2003-2015**

A.W. Phillips describes how the relationship between the distributions of inflation with the unemployment rate is based on the assumption that inflation is a reflection of increase in aggregate demand. With soaring demand aggre-Gath, then in accordance with the theory of demand, if demand goes up then the price will go up. With the high prices (inflation) then the request to meet the manufacturers increase production capacity by adding manpower (manpower is the only input that can increase output). The result of the increased demand for labor then with rising prices (inflation) then, unemployment reduced.
Using the approach of A.W. Phillips by connecting between unemployment with inflation rates in the case of Indonesia is less precise. It is based on the results of the analysis of the levels of unemployment and inflation in Indonesian from 2003 until the year 2015, it turns out that statistically or graphically no significant influence between inflation with unemployment rate (see the results of the statistical analysis below).

In contrast to Indonesia, the rising prices or inflation is generally caused due to rising production costs such as soaring Fuel oil (FUEL), not because of rising demand. With this reason, then it is not right when you change unemployment rate in Indonesia is linked to inflation. Therefore, changes in the unemployment rate are more appropriate when associated with the level of economic growth. Because economic growth is a result of the existence of increased production capacity which is derived from the increased investment.

**Conclusions**

Based on the results of research on earlier research on the influence of Inflation against unemployment in Indonesian 2003-2015 period, then a conclusion can be drawn as follows:

Upon the results of the regression analysis showed that the independent variables namely variables inflation had no significant effects of unemployment in Indonesia during the period 2003-2015. That inflation at a low level would serve encourage growth, while the high rate of inflation will hamper the development of the economy. According to the discussion on scientific papers above, after the author comparing with the pattern of the relationship between inflation and unemployment in Indonesia with the theory of Phillips expressed by A. W. Phillips, the result cannot be associated or linked with the theory. That is, the theory of Phillips does not apply to developing countries especially to Indonesia. This is because Phillips used the assumption of the theory that inflation was heavily influenced by the aggregate demand or aggregate to demand, whereas in countries – developing countries, primarily Indonesian inflation more influenced by cost of the production. If according to Phillips when occurred inflation, the company will strive to improve the output to meet the needs of the market, assuming the aggregate demand, so the company will strive to increase the resources or the manpower to meet the needs of the community, consequently increasing unemployment to decline, because it is considered in the short-term nominal value is paid to the enterprise the workforce even though remains but the real value of wages such decline spent.

But in contrast to Indonesian, as mentioned above, inflation due to rising production costs, so that indirectly the price of materials to meet the market demand or output also increased, so that the company will attempt to depress production cost to the efficiency of the company, as a result for the sake of maintaining the efficiency of one of the steps that can be taken by the company is reducing its workforce and replace with engines budgeted, so the cost is also reduced, in the sense that the company must reduce the workforce by way of termination of employment relationships. But this does not mean that in Indonesian the relationship between unemployment and inflation is positive, because in reality in Indonesian there is no definite relationship between inflation and unemployment.

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