INFLATION EFFECT ON UNEMPLOYMENT IN INDONESIA: A COMPARATIVE STUDIES BETWEEN SHARIA AND CONVENTIONAL ECONOMIC PERSPECTIVES

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ABSTRACT
This study discusses the effect of inflation on unemployment by comparing the perspective of Islam with capitalism. The purpose of this study is to identify the driving factors that cause inflation and unemployment. This research is conducted using descriptive analysis through linear regression analysis on Indonesia’s unemployment and inflation data from 2001 to 2019. This study found that inflation was not the main contributor to unemployment and only accounted for 18.6% of unemployment, whereas the remaining 80.4% was caused by other factors. This occurs because the increase in prices are not due to aggregate demand, but due to natural and man-made factors. To overcome inflation, the government should create policies to promoting a culture of saving, investing and discouraging wasteful and excessive spending from early age and improve the morale of officials and entrepreneurs. In addition to that, the government can also implement the law firmly and consistently to all parties who commit unethical behaviour; second, increasing the role of the community to observe and report corruption. To reduce the rate of unemployment, the government can implement several policies. Those are implementing policies that make it easier for startups to obtain capital, create investment security and facilitate licensing bureaucracy; second, providing more free and accessible work training courses, especially in urban areas; third, implement 12-year compulsory education consistently.

Keywords: Inflation, unemployment, natural factor, human factor, Islamic and Conventional Perspective.

I. INTRODUCTION
Inflation and unemployment are two major issues in the economy, when inflation increases, the prices of goods and wages do not move at the same pace. This deviation results in a redistribution of income and wealth between different groups and a deviation in output and employment (Paul A Samuelson W. D., 2001; Bach, 1975). High inflation can be another inducing factor of higher income and wealth gap between the rich and the poor. A.W. Phillips in his theory of the Phillips curve states that inflation and the high unemployment rate have a negative impact toward the economy and stability of the
country. He also stated that if the inflation is high, then unemployment will be low. This is based on the assumption that inflation is a reflection of an increase in aggregate demand, so the demand theory applies, namely when demand increases, prices will rise which causing inflation. To meet the increased demand, producers increase production capacity by hiring more labor. Thus causing a decrease in the level of unemployment (Gertler & Leahy, 2006).

Furthermore, according to some Muslim scholars such as M Umer Chapra, inflation increases the prices of goods, and in the long run it burdens the society and causes a decrease in employment (Chapra, 2000). Al-Maghrizi stated that inflation was caused by natural and human factors (Karim, 2010).

The rate of inflation and unemployment in Indonesia from 2001 to 2019 is depicted in the following graph on Figure 1.

**Figure 1. Inflation and Unemployment Rate of Indonesia 2001 - 2019**
Source: Central Bank of Indonesia and Statistics Indonesia

Figure 1 shows that inflation in Indonesia fluctuates throughout the year, but on average, Indonesia experiencing low inflation, which was indicated by the inflation rate that were only in the single digit. The the highest inflation rate was in 2005 at 17.11%. During this period, unemployment rate was decreased continuously, and in 2019 the unemployment rate was only 5.28%.

Previous research on the effect of inflation on unemployment has been carried out by Nadia Ika Purnama (2015), who found that the inflation rate has a negative and insignificant effect on unemployment in the city of Medan, it is likely that unemployment is influenced by other factors. Another study that has been done by Edyson Susanto and his friends found that inflation has a direct and significant effect on unemployment in the city of Samarinda (Edyson Susanto, 2017).

Despite there have been several related studies, the underlying problems of inflation and unemployment have never been resolved. This condition encourage the writer to conduct research on the effect of inflation toward the unemployment level in Indonesia. In this study, the author will compare the concepts of inflation and unemployment
through the conventional and Islamic perspectives. This research is expected to provide input to the government regarding policies that can be implemented to reduce inflation and unemployment.

This study only analyzes unemployment and inflation data from 2001 to 2019 which comes from the websites of the Central Statistics Agency (BPS) and Central Bank of Indonesia (Bank Indonesia). The research method in this study was descriptive analysis by conducting linear regression analysis on Indonesia’s unemployment and inflation data. This method was used to explain the relationship between variables.

II. LITERATURE REVIEW

Inflation

Inflation is a condition when prices increase continuously. Inflation in the short term is caused by several factors such as excessive circulation of money in the society, increase in interest rate, decrease in the production of goods. However, in the long term perspective, it can be said that inflation is only caused by economic growth and increasing supply of money to the society (Romer, 2012).

Inflation arises from an increase in the supply of money, which can be explained by the quantity theory of money. The theory describes the relationship of money in circulation with income as follows:

\[ M \times V = P \times T \]  

or

\[ M \times V = P \times Y \]

\( M = \text{Money} \)

\( V = \text{Velocity} \)

\( P = \text{Price of money} \)

\( T = \text{Transaction} \)

\( Y = \text{out put of the economy} \)

The equation above states that the circulation of money is influenced by the changes of value in money and the transaction frequency of the money during certain period. In conditions \( T \) (transaction frequency) is difficult to measure, in that case \( T \) can be replaced by \( Y \) which is the gross domestic gross value (GDP). Thus it can be concluded that inflation is caused by an increase in the money supply, which is influenced by changes in the value of money and GDP (Hussein askari, 2015; Elis Ratna Wulan, 2015).

The inflation rates that occurred in Indonesia from 2001 to 2019 shows on Table 1.

Inflation on Sharia Perspective

In the concept of Islamic economics as proposed by Al-Maqrizi, classifies the factors that cause inflation based on the aspects of the perpetrator, which are grouped into 2 things, namely inflation caused by natural and human factors. For the natural caused inflation, the supply of goods is reduced due to natural disasters, which results in decreased production and delayed distribution. While in the other hand, the example of inflation that is caused by human error are corruption, and improper policies that is contradictive toward the economic growth; high taxes that are burdensome to society and excessive circulation of money (Karim, 2010).

Natural inflation has occurred during the time of the Prophet Muhammad, prices have increased due to an imbalance in supply and demand, but the Prophet did not want to intervene to set prices as the Prophet's hadith narrated by Anas, he said; people said to Rasulullah SAW, "O Messenger of Allah, the prices of goods are going up (expensive), set the price for us". Rasulullah answered "Allah is the determinant of the price, the barrier, the provider, and the provider of sustenance. I hope that when I meet Allah, no one will ask me about the exploitation in matters of blood and wealth" (Syakir, 2016).
The hadith above, explains that the increase in price due to natural inflation is the destiny from Allah, so that Allah can solve it. Government interference will cause confusion in the market mechanism. The role of the government is to regulate the markets by supervising market players to hasten the distribution of the goods and forbid them to hoarding the goods.

Inflation caused by humans is an act that is against Islamic law. Corruption, nepotism and collusion committed by government officials violate the policies which create a detrimental effect to society. For example, by giving monopoly rights to a person or institution, and allowing a cartel to manipulate the market prices. Islamic law oblige the leaders to carry out their leadership responsibly and avoid moral hazard, as the following hadith of Rasulullah:

Ibn Umar r.a said: I have heard Rasullulah say: everyone is a leader and will be held accountable for his leadership. A head of government will be held accountable for the people he leads. A husband will be asked about the family he leads. A wife who looks after her husband's household will be asked about her responsibilities and duties. Even a servant / domestic worker who is in charge of maintaining the property of his employer will also be asked about what he leads. And you all leaders and will be asked (asked to take responsibility) of the things they lead (Az-Zabidi, 2002).

Honesty is the main requirement and basic asset for a leader, because without honesty, prosperity is not possible. An example is the country of Indonesia which is rich in natural resources, but its people are not prosperous. Most of its natural wealth is only enjoyed by a few people and some are even taken abroad. Therefore Islam emphasizes the importance of honesty that a leader must have.

The definition of inflation from a conventional or Islamic point of view is no different. Inflation is characterized by a continuous increase in prices, and a continuous decline in the value of the currency. Inflation is generally caused by 3 factors, namely: (1) An increase in need or demand. In such conditions, the law of supply and demand applies, when the demand of goods increases, prices will be rise; (2) The increase in production costs. This can be caused by distribution constraints and scarcity of raw materials. The increase in production costs also can occur due to an increase in employee wages according to government policies, an increase in taxes, and the price of imported materials increased due to a decrease in the value of the rupiah; (3) Printing more money.

If there is a lot of money in circulation, while the amount of goods produced is constant, it will cause an increase in prices (Totonchi, 2011).
Table 1. The inflation rates in Indonesia From 2001 to 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Inflation Target Rate</th>
<th>Realization Inflation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>4% -6%</td>
<td>12,55%</td>
</tr>
<tr>
<td>2002</td>
<td>9% -10%</td>
<td>10,03%</td>
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<tr>
<td>2003</td>
<td>9±1%</td>
<td>5,06%</td>
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<tr>
<td>2004</td>
<td>5,5±1%</td>
<td>6,40%</td>
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<tr>
<td>2005</td>
<td>6±1%</td>
<td>17,11%</td>
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<tr>
<td>2006</td>
<td>8±1%</td>
<td>6,60%</td>
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<tr>
<td>2007</td>
<td>6±1%</td>
<td>6,59%</td>
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<tr>
<td>2008</td>
<td>5±1%</td>
<td>11,06%</td>
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<tr>
<td>2009</td>
<td>4,5±1%</td>
<td>2,78%</td>
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<tr>
<td>2010</td>
<td>5±1%</td>
<td>6,96%</td>
</tr>
<tr>
<td>2011</td>
<td>5±1%</td>
<td>3,79%</td>
</tr>
<tr>
<td>2012</td>
<td>4,5±1%</td>
<td>4,30%</td>
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<tr>
<td>2013</td>
<td>4,5±1%</td>
<td>8,38%</td>
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<tr>
<td>2014</td>
<td>4,5±1%</td>
<td>8,36%</td>
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<tr>
<td>2015</td>
<td>4±1%</td>
<td>3,35%</td>
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<tr>
<td>2016</td>
<td>4±1%</td>
<td>3,02%</td>
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<tr>
<td>2017</td>
<td>4±1%</td>
<td>3,61%</td>
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<tr>
<td>2018</td>
<td>3,5±1%</td>
<td>3,13%</td>
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<tr>
<td>2019</td>
<td>3,5±1%</td>
<td>2,72%</td>
</tr>
</tbody>
</table>

Source: bi.go.id

Unemployment

Unemployment is a term for people that are around 15 - 65 years old or in their working age that do not have any work, are looking for jobs, or people who work for less than two days in a week. Generally, unemployment is caused by number of jobseekers that are larger than the number of jobs available. Unemployment is a problem in the economy, security, and stability of a country. It is because with higher rate of unemployment in certain area, a general productivity and income in certain area will decrease as well, which can lead to poverty, high crime rates and other social problems.

In Islam, unemployed people are a waste of resources, because they are unproductive and are not contributing to the economy. Unemployment has an impact on social, economic and legal issues. High unemployment rate have a high correlation with high number of crime rates in the society. Unemployment also decrease overall hapiness of certain society. Therefore, unemployment must be reduced as little as possible.

Based on the source and causes, unemployment can be divided into 3 types. Those are:

a. Cyclical unemployment, Cyclical, deficient-demand, or Keynesian unemployment occurs when there is not enough aggregate demand in the economy to provide jobs for everyone who wants to work (Paul Samuelson, 2010). Due to demand for most goods and services decrease, less production activity is needed and consequently fewer workers are needed
which then resulting in unemployment. Keynesian economists, on the other hand, see the lack of supply of jobs as potentially resolvable by government intervention. One suggested intervention involves increase government spending to boost the demand of goods and increase employment opportunities. Another intervention involves an expansionary monetary policy to increase the supply of money, which should reduce interest rates, which, in turn, should lead to an increase in employment opportunities and less government spending in boosting the economy.

b. Structural unemployment, this occurs when a labour market is unable to provide jobs because there is a mismatch between the skills of the unemployed workers and the skills needed for the available jobs. Structural unemployment is hard to differentiate from frictional unemployment except that it lasts longer. As with frictional unemployment, simple demand-side stimulus will not work to abolish this type of unemployment easily.

c. Frictional unemployment is the time period between jobs in which a worker searches for or transitions from one job to another. It is sometimes can be voluntary, based on the circumstances of the unemployed individual. Frictional unemployment exists because both jobs and workers are heterogeneous, and a mismatch can result between the characteristics of supply and demand. Such a mismatch can be related to skills, payment, work-time, location, seasonal industries, attitude, taste, and a multitude of other factors. New entrants (such as graduating students) and re-entrants (such as former homemakers) can also suffer a spell of frictional unemployment.

Generally, in the short run, inflation, unemployment, fluctuations in the business cycle, and economic recession are caused by the interaction of aggregate supply and demand, which cannot be responded too quickly. But in the long run unemployment is determined by the growth in potential output working through aggregate supply. Aggregate supply is basically determined by the potential or potential output of GDP and input costs. Potential GDP is the maximum level of output that can be produced without triggering inflation. Potential GDP is measured using the level of output to be produced which can measure the rate of unemployment that will occur, which is called non-accelerating inflation rate of unemployment (NAIRU) (Paul A Samuelson W. D., 2001).

Based on the statement above, it is classified into structural unemployment and seasonal unemployment. Structural unemployment arises when there is a mismatch between what business needs and what available workers offer. Seasonal unemployment occurs when people unemployed at particular time of the year when demand for labour is lower than usual (Ronald G Ehrenberg, 2012).

Unemployment in Indonesia is caused by several factors, such as (Dian Priastiwi, 2019): (1) population growth rate; (2) Industrial revolution 4.0; (3) The mismatch between supply and demand.

The concept of unemployment that applies in Indonesia is as follows:

a. Open unemployment (TPT) is the percentage of the total unemployed compared to the total workforce. consists of: (1) Those who are unemployed but are looking for work; (2) Those who are
unemployed and are preparing a business; (3) Those who are unemployed and are not looking for work, because they believe that they will not get a job; (4) Those who already have a job but have not started working.
b. Part-time workers who work less than 35 hours per week (Badan Pusat Statistik, 2019).

Open unemployment in Indonesia in February 2019 amounted to 5.28%, when viewed from the total workforce in February 2019 of 136.18 million people, the number of unemployed reached 7.19 million people (Badan Pusat Statistik, 2019). The open unemployment rate in Indonesia can be seen in Table 2.

The Table 2 slowly shows the decline in the unemployment rate in Indonesia, except from 2004 to 2006 unemployment has increased. Overall, the level of open unemployment in Indonesia in 2019 is still high, above 5% of the total workforce and above 5% of GDP.

<table>
<thead>
<tr>
<th>Table 2. National Open Unemployment Rate</th>
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<tbody>
<tr>
<td><strong>Years</strong></td>
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<td>2001</td>
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<td>2019</td>
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</tbody>
</table>

Source: Central Bureau of Statistics

The relationship between output growth and the unemployment rate, based on Okun's Law (Okun's Law) is negative, meaning that when growth is low, the unemployment rate is high, and causes the level of people’s income to fall, which is followed by decreasing in purchasing power. Such conditions will have an impact on slower economic growth. In this condition, the producers will respond by reducing the scale of production of goods and services. For every 2% reduction in potential GDP, this would result in unemployment
increasing by 1% (Blanchard, 2006).

Unemployment Through Islamic Perspective

The paragraph above is related to the concept of unemployment based on conventional thinking. The following concept will discuss the unemployment from Islamic perspective. Working from Islamic perspective is a form of worship to Allah, therefore work is obligatory, so unemployment is against Allah's orders. The command to work in the Koran, among others, is contained in Surah An Naba verse 11 and Surah Al A'raf verse 10, which states that: "and we have made time during the day to cultivate life (work)." (Surah Naba : 11), and "We have made for you all in the earth as a field to cultivate life (work); But very few of you are grateful." (QS. A'raf: 10).

Hadith rasullullah related to work narrated by Ibnu Abbas ra said, I heard Rasulullah SAW say, "Whoever feels tired in the afternoon, because of the work done by his two hands, then he will get his sins forgiven by Allah SWT that afternoon." (Narrated by Imam Tabrani). Another hadith is "Allah loves servants who work and are skilled. Whoever works hard to make a living for his family is like a mujahid in the way of Allah. " (Albani, 2002).

Based on the hadith above, work must be done seriously and professional. Therefore, Islam encourages humans to learn and develop their professionalism in accordance with technological developments. In the Islamic State system (Khilafah), the head of state (Khalifah) is obliged to provide jobs to his people who need work, as a realization of Islamic Political Economy. Therefore, the state is obliged to open the widest possible employment opportunities, by activating the real economic sector (agriculture, industry, etc.) (Ductor & Grechyna, 2015). Hadist Rasulullah SAW:” Imam/Caliph is the custodian of people's affairs; he will be held accountable for the affairs of his people" (Az-Zabidi, 2002).

III. METHOD

The study used a literature review method with data analysis using descriptive analytical methods and quantitative analysis. Analytical description is used to describe the phenomenon of the variables in this study. Quantitative analysis is used to analyze the effect of the independent variable, called inflation, and the dependent variable, called unemployment. Sources of data in this study are secondary data obtained from books, websites, journals and reports and other sources are relevant to the research.

Analysis of the effect of inflation on unemployment using simple linear regression:

\[ Y = \alpha + \beta X + \mu \]

Explanation of the notation:

- \( Y \) = Unemployment rate (percentage)
- \( X \) = inflation (percentage)
- \( \alpha \) = regression constant
- \( \beta \) = regression coefficient
- \( \mu \) = term error

IV. RESULT AND DISCUSSION

The results of data analysis using simple linear regression shows on Table 3-5. Based on the data analysis, it is known that the coefficient of termination is 18.6%, which means that inflation does not significantly affect unemployment, thus 80.4% of unemployment is influenced by other factors. The regression equation of \( Y = 6,370 + 0,185 \) X+ \( \mu \)
The regression equation above means that if inflation in 2019 is 2.72%, it will cause unemployment to increase by $Y = 6.370 + 0.185(2.72)$ and if there is no inflation (0) then unemployment will still increase by 6.370.

Many scholars state that inflation and unemployment are unrelated. The findings of this study are in line with the results of research conducted by the Biro Analisa Anggaran dan Pelaksanaan APBN (2014) and Dwi Wulandari et al. (2019) which found that inflation does not affect the level of unemployment because inflation in Indonesia is not driven by an increase in aggregate demand (Dwi Wulandari, 2019). This is due to the fact that inflation in Indonesia is caused more by natural and human factors. Natural factors that reduce production and hinder distribution, such as floods, drought, landslides, disease outbreaks (covid-19) and earthquake. Inflation caused by nature is temporary, when conditions return to normal, prices will return to normal. For example, when the new Covid outbreak spreads, masks and vitamins were scarce and prices went up, but when distribution and production returned to normal, prices returned to normal.

Human factors that cause inflation in Indonesia include: government policies, corruption, collusion, mal-administration, inefficiency, monopolies, cartels and so on which result in price increases, will lead to inflation. An example of a price increase by government for basic electricity and fuel tariff, as published by Detik Finance, which states that most fuel imports are carried out by Indonesia through cartels (Detik finance, 2014). The cartel controls the purchase price of the product, which results in an increase in the price of fuel on domestic market, thus triggering inflation. A common administration fraud is a price markup, which results in higher prices. Another example of inflation caused by human is when certain high government official and businessman formally agree to import meat and control the market, as published by Kompas.com (Maharani, 2014).

Humankind has the ability to cause destruction and harm to the environment. Therefore Allah warns people about the punishment for their bad deeds, as stated in Q.S. Ar Rum: 42: "We have seen firsthand the damage on land and sea caused by humankind; Allah wills that the consequence of what they have done that perhaps they will return to righteousness". Based on this, a leader is required to be wise and fair in making decisions in order to avoid mistakes that can harm him and the people. A leader will be held accountable for all his actions in the world before humans, and in the hereafter before God".

If addition to facts above, when inflation does not significantly affect the level of unemployment, then unemployment may be caused by other factors, such as population growth rate, education level, and technological changes. Based on data from Indonesia Central Bureau of Statistics in 2017, it states that the population growth rate in Indonesia is 1.36 and it is projected that by 2035 the total population of Indonesia will reach 305 million people, and is dominated by working age.

The growth of the working age population is like two sides of a coin, if it is utilized optimally it will increase GDP, but if it is not managed properly it will become a burden in the form of unemployment. Based on data from BPS, West Java and Banten are provinces with the highest unemployment rates in Indonesia, respectively 7.99% and 8.11%.

In the current industrial revolution era, companies are using technology to replace human labor, because it is more efficient and
easier to manage. This has resulted some types of workers may lose their jobs, but on the other hand, new business fields have emerged, for example professional youtubers and gamers. These technological changes have not been fully responded by Indonesian workers. This is due to the low level of education, based on BPS data, the population aged over 15 years, 64.06%, only attended junior high school and the school participation rate for residents aged 19-24 was only 23.28%. Event though Indonesia human development rate index has increased by 71.9. This might be the reason of mismatch for the job seeker in a job that does not qualified with his/her level education.

V. CONCLUSION AND IMPLICATION

This study found that inflation does not have a significant effect on unemployment, there are other factors that affect unemployment in Indonesia such as the rate of population growth, the industrial advancement that replacing humans with technology and low levels of education.

Conventional economic systems and Islamic economics have the same view toward the inflation, however Islamic economics has its own distinctive approaches in indentifying and solving the issue. In the conventional system, inflation is caused by the high circulation of money, so it is resolved by implementing monetary policy through the interest rate mechanism to reduce the quantity of money in circulation. In the Islamic economic system, inflation is caused by natural and human factors, therefore inflation can be resolved by improving the ethics or morals of the people which involved in the system, such as government officials, businessmen and the people in the society.

Inflation in Indonesia is mostly caused by human error, as a result of mistakes in policy making, collusion, nepotism and monopoly / oligopoly. The increase in prices in Indonesia did not occur due to the supply and demand mechanism, but the increase in prices was partly due to government policies and company / entrepreneur actions. This causes an imbalance of power in the society or lower bargaining position for the consumers on the demand side and higher bargaining position for entrepreneurs / government on the supply side.

Based on the findings above, the authors suggest the government to create bold action and strategy to improve the morale of officials and entrepreneurs. This can be done through implementing several policies such as: (1) carry out the law firmly and consistently to all parties who commit moral hazard and abuse their power/authority; (2) Increasing the role of society in monitoring the occurrence of economic / financial crimes; (3) Promote a culture of saving and investing and suppressing a consumptive culture from an early age through formal and informal education channels.

While in order to reduce the unemployment, government needs to take steps to improve workforce skill and encourage the creation of new entreprenuers among youth and college graduates. This can be done by implementing policies such as: (1) Making policies that make it easier for startups to obtain capital; (2) Create investment security and simplify licensing bureaucracy; (3) Provide more vocational training centers that are free and easily accessible, especially in urban areas; (4) Consistently support and implement the 12 years compulsory education policy.
VI. REFERENCES


