The effects of investment, monetary policy, and ZIS on economic growth in Indonesia.

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**ARTICLE INFO**

<table>
<thead>
<tr>
<th>Article history:</th>
<th>ABSTRACT</th>
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<tr>
<td>Received 12-Mar-20</td>
<td>This study's background is an effort from the government to implement economic stabilization from economic growth instruments. Economic growth is influenced by economic factors such as investment, monetary policy, zakat, infaq, and sadaqah (ZIS). This study analyses investments, monetary policy, and ZIS (Zakat, Infaq, Sadaqah) on economic growth in the Indonesia period of 2013-2018. The Data collection method is done through data retrieval from the Statistical Center (BPS), Financial Services Authority (OJK), Bank Indonesia (BI), the National Amil Zakat Agency (BAZNAS). This study uses the linear regression method. The results of this research show that mutual fund (investment) has a negative effect, the exchange rate (monetary policy) has not significant, and ZIS (Zakat, Infaq, Sedekah) has not signed on economic growth in Indonesia.</td>
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**Keywords:**
Investation; Monetary policy; ZIS; Economic growth

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1. Introduction

Every country must have goals in economic development, including Indonesia. Economic development is a series of business activities aimed at developing or growing the economy. This is illustrated by the availability of infrastructure, which will grow companies and education and technology. With hope, if economic growth is good, it will reduce the level of poverty and other inequality problems (Ahmad, Alyas, & Amir, 2018). The indicator used to calculate the rate of economic growth is the growth rate of national products, such as Gross Domestic Product (GDP) at the national level and Gross Regional Domestic Product (GRDP) for provinces and districts/cities (Hosen et al., 2016).

Based on a report from the Central Statistics Agency (BPS), economic growth in the third quarter of 2018 was 5.17 percent annually, up 0.11 percent compared to the same period the previous year. This is because various factors drive economic growth in the third quarter of 2018. In terms of business fields, economic growth was contributed by the manufacturing industry by 0.91 percent. Meanwhile, the trade factor contributed 0.69 percent, the construction sector of 0.57 percent and the agricultural sector at 0.49 percent. Meanwhile, in terms of consumption expenditure, non-profit institutions, household consumption remained the highest with a contribution of 2.69 percent. Meanwhile, Gross Fixed Capital Formation (PMTB) is 2.24 percent, government consumption is 0.48 percent, and others are 0.86 percent. The export was minus 1.10 percent (Badan Pusat Statistik, 2018).

One of the high and low levels of economic growth can be seen from the dynamics of investment, reflecting high and low development levels. One of the investment indicators is investment (Sari, Syechalad, & Sabri, 2016). Investment in an Islamic economy is the act of saving, a person's effort to prepare, implement, and plan plans used to face unexpected circumstances or obstacles (Purnamasari, 2017). As research conducted by (Putri, 2014), the variables of domestic investment, capital expenditures, labour, and infrastructure positively affect Java's economic growth. Meanwhile, in the research conducted (Sari et al., 2016), the investment returns were negative but not significantly affecting Indonesia's economic growth in 2006-2010.

Apart from investment, the things that affect economic growth are the government's fiscal and monetary policies. Monetary is a vital part of an economy; economic growth cannot be analyzed without monetary problems. Several domestic economic indicators affect economic growth in Indonesia, including interest rates, exchange rates (exchange rates), inflation, exports and consumption of fuel oil or BBM (Warjiyo & Solikin, 2003). In this regard, Bank Indonesia is an institution that has the authority to regulate monetary and fiscal policies, including maintaining the stability of the exchange rate and the money supply (JUB). An excessive increase in the money supply (JUB) can push the price increase beyond the expected level so that in the long run it can disrupt economic growth (Warjiyo & Solikin, 2003). As research conducted by (Salim, 2017) shows, the exchange rate positively affects Indonesia's economic growth, meaning that the greater the nominal exchange rate will cause economic growth to increase significantly.

Apart from investment and monetary policy, there are Islamic public instruments, namely Zakat, Infaq and Alms (ZIS), currently under the government's spotlight to help overcome inequality and poverty. In the context of Indonesia, which is a country with the immense Muslim majority in the world, the potential for ZIS that can be collected is, of course, very large. Today, the national zakat collection is still very positive, where the total ZIS collected in 2011 reached Rp. 1.729 trillion when compared to the previous year, it increased by 15.3 and increased 25 times compared to 2002. Average ZIS growth from 2005-2015 then ZIS collection growth reached 39.28 per cent. This indicates a fairly high increase in public awareness of zakat through zakat management organizations (OPS) (Pusat Kajian Strategis_BAZNAS, 2017).
However, the ZIS data collection portrait above is still very far away compared to the huge potential of ZIS itself. These funds do not reach five percent of the total potential of ZIS, which is IDR 217 trillion / year. One of the factors causing ZIS collection's low realization is still weak coordination and synergy between zakat institutions (Kompasiana.com, 2018). As research conducted by (Khasandy & Badrudin, 2019; Mohamed, Ibrahim, Zaidi, & Kamaruzaman, 2019). Meanwhile, another study by (Fatimatuz & Mafraini, 2017) shows the partial results of the Human Development Index (HDI) and Poverty variables influence economic growth. Meanwhile, Zakat, Infaq, Almsgiving does not influence the rate of economic growth.

Based on this description, this research is interesting to study more deeply, hoping that this study's results can add information and mapping problems to contribute to policymaking to address existing economic growth imbalances. For this reason, researchers try to carry out further research with the title: "Analysis of the Influence of Investment, Monetary Policy, and ZIS (Zakat, Infaq, Sadaqah) on Economic Growth in Indonesia for the 2013-2018 Period.

**Economic growth**

Economic growth as a description of people's activities in earning income through production activities, besides being an instrument used to reduce poverty levels and other inequality problems (Pangiuk, 2018). In general, economic growth can be seen from the movement of the gross domestic product (GDP) of each economic level in a country, which has differences from one country to another (Nwakanma & Ibe, 2014). In this study, the indicator used to measure economic growth is gross domestic product (GDP) (Hosen et al., 2016).

If the level of economic growth is good and economic stability is achieved, it will reduce poverty. Creating growth in economics is influenced by several economic factors such as; large investment, economic policies that favour the welfare and justice of society as a whole, and so on. In this study, the measuring instrument for economic growth uses the mechanism of gross domestic product (GDP).

**Investment**

Investment is a commitment to retaining assets owned to obtain several benefits in the future by using Islamic capital market instruments or opening a business (Pardiyanasyah, 2017). A large amount of investment, both on a national and national scale in a country, will make it easier to achieve economic stability. This is because the amount of investment will affect the smooth running of a community's economic activity, increasing per capita income and affecting national economic growth (Sari et al., 2016). In this study, the instrument of measuring investment uses mutual funds instruments.

**Monetary policy**

Monetary policy is used to maintain the exchange rate stabilization and keep inflation below the minimum limit. In this case, the instruments used to achieve this control the money supply (JUB), money supply and interest rates. Monetary policy depends on the relationship between interest rates and the money supply (JUB) in the economy (Lut & Moolio, 2015). The monetary policy implemented by the government will greatly affect economic activity. Monetary policy that is clean from bureaucratic problems and irresponsible parties will facilitate national economic activities, significantly affecting economic growth or negatively depending on the current economic situation (Salim, 2017). In this study, the monetary policy measurement tool uses the exchange rate instrument.

**Zakat, Infaq and Sadaqah**

Zakat is etymologically derived from the word zaka yazku, which means growth (nama”), holiness (thaharah), blessings (barakah), and virtue (ash-salahu). As for zakat in terms of terminology,
although the scholars provide a different perspective from one editor to another, the principle is the same: that zakat is part of the property with certain conditions that Allah Ta'ala requires owner, to be submitted to the rightful. Accept it, with certain conditions (Muthohar, 2016). In law number 23 of 2001 regarding zakat management, infaq is the giving or donation of assets outside zakat for good purposes. Infaq can also be interpreted as the act of removing assets by a person or business entity for the general benefit other than zakat (Nasution, 2018). Meanwhile, almsgiving means removing some of the assets that are owned for the interests taught by Islam (Sumadi, 2017).

In Islam, zakat, infaq, and sadaqoh (ZIS) instruments are instruments used to help realize good economic growth. Seeing the huge potential of ZIS funds in Indonesia, if they can be collected as a whole, of course, it will significantly affect economic growth, especially in helping reduce the amount of poverty. As stated in his research, ZIS funds influence economic growth, depending on the number of funds raised (Suprayitno, 2020).

2. Research Method

This research is a quantitative research that takes data indirectly (secondary data). The method of collecting data by taking data comes from the Central Statistics Agency (BPS), the Financial Services Authority (OJK), Bank Indonesia (BI), the National Zakat Agency (BAZNAS) for the period 2013-2018. Henceforth, the data will be processed statistically using the multiple linear test method, with the following equation

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_2 + \epsilon \]

Note:
Y: Gross domestic product (PDB)
X1: Mutual funds
X2: Exchange rate
X3: Zakat Infaq Sadaqah

3. Result and Discussion

Stationarity test

The stationarity test is a test used to determine the situation if the generation process becomes the basis for a periodic series which is based on a constant mean value and a constant variance value. Data can be said to be stationary if the process does not change over time (Akbar & Rizal, 2015). In this study, the augmented-Dickey-Fuler (ADF) unit root test was used. The results of the stationarity test are as follows.

<table>
<thead>
<tr>
<th>No</th>
<th>Variabel</th>
<th>Prob. Unit Root Test</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mutual Funds (X1)</td>
<td>0.0001</td>
<td>Stationarity test of root 2nd difference</td>
</tr>
<tr>
<td>2</td>
<td>Exchange Rate (X2)</td>
<td>0.0000</td>
<td>Stationarity test of root 2nd difference</td>
</tr>
<tr>
<td>3</td>
<td>ZIS (X3)</td>
<td>0.0000</td>
<td>Stationarity test of root 2nd difference</td>
</tr>
<tr>
<td>4</td>
<td>PDB (Y)</td>
<td>0.0001</td>
<td>Stationarity test of root 2nd difference</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on Table 1, the processed data shows the output with a probability value <0.05. Thus the independent and dependent variables meet the stationarity test requirements and are feasible to continue with further data testing.
Uji Regresi

Table 2. The result of the regression test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(Mutual Fund)(X₁-2)</td>
<td>-0.99</td>
<td>-2.95</td>
<td>0.0043</td>
</tr>
<tr>
<td>D(Rate Exchange)(X₂-2)</td>
<td>62.01</td>
<td>0.09</td>
<td>0.9271</td>
</tr>
<tr>
<td>D(ZIS)(X₃-2)</td>
<td>-2.15</td>
<td>-0.48</td>
<td>0.6302</td>
</tr>
<tr>
<td>Dependent variable: D(PDB)(Y-2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

The regression model obtained from the test results can be written as follows:

\[ Y = 1424099 - 0.994127 X_1 + 62.01892 X_2 - 0.000000215 X_3 \]

Normality Test

The normality test is carried out to determine whether, in the regression model, there are confounding or residual variables that have a normal distribution (Sadjab, 2016).

Figure 1. The result of the normality test

Figure 1 it is known that the probability value of the first equation is 0.142798. This value shows that it is greater than 0.05; the data is normally distributed.

Multicollinearity Test

Multicollinearity test is performed to determine whether there is a perfect or definite linear relationship between some or all of the independent variables of the multiple regression model. In another sense, there is a high correlation between the independent variables (Bawono & Sina, 2018). In this study, the multicollinearity test was carried out with auxiliary regression by looking at the R² of each variable.

Table 3. Multicollinearity Test Results

<table>
<thead>
<tr>
<th>No</th>
<th>R-Square</th>
<th>R Squared: 0.124050</th>
<th>Note</th>
<th>Note</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mutual Fund = 0.03</td>
<td>Smaller</td>
<td>There is no multicollinearity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Exchange Rate = 0.04</td>
<td>Smaller</td>
<td>There is no multicollinearity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ZIS = 0.01</td>
<td>Smaller</td>
<td>There is no multicollinearity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on Table 3, it can be seen that there is no relationship between the independent variables and the R² value in the main regression value. So it can be concluded that the variable data in this study does not have multicollinearity.
**Autocorrelation Test**

Testing autocorrelation in a model aims to determine whether there is a correlation between confounding variables in a certain period and the previous variable. For time-series data, autocorrelation often occurs. But for the sample data, cross-sections rarely occur because the confounding variables are different from one another (Sujarweni, 2015). In detecting the presence or absence of autocorrelation, it can be done with the Durbin-Watson test (DW test) with the criteria $\text{dw} < 4 - \text{du}$ (Bawono & Sina, 2018).

<table>
<thead>
<tr>
<th>Table 4 The result of autocorrelation test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prob (F-statistic)</td>
</tr>
<tr>
<td>0.000004</td>
</tr>
</tbody>
</table>

Source: Secondary data processed, 2020

Based on Table 4, to get a normal autocorrelation test, the regression value must be between DU and 4-DU, where the values of DU = 1.7504 and DL = 1.5323, 4-DU = 2.2496 and 4-DL = 2.4677. In the table above, the Durbin Watson value is 1.967228. So it can be concluded that the data does not contain autocorrelation.

**Heteroscedasticity Test**

The heteroscedasticity test variates the residual variable that is not the same in all observations in the regression model (Romdhoni & Ratnasari, 2017). To determine the presence or absence of heteroscedasticity symptoms in this study is to perform the Glejser test. If the significance of the probability <0.05 means the model contains heteroscedasticity. If the significance of the probability > 0.05 then the model does not contain heteroscedasticity (Lapopo, 2012).

<table>
<thead>
<tr>
<th>Table 5 Heteroscedasticity Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>0.782490</td>
</tr>
<tr>
<td>Prob. F (3.67)</td>
</tr>
<tr>
<td>0.5079</td>
</tr>
</tbody>
</table>

Based on Table 5, it can be concluded that this study does not have heteroscedasticity. Because the probability is 0.507873 or greater than 0.05, the model does not contain heteroscedasticity.

**The effect of investment on economic growth**

The mutual fund variable coefficient's value is 0.994127 with a negative coefficient direction and a probability value of 0.0043. The probability value is smaller than 0.05, so mutual funds (investment) have a negative effect on the gross domestic product (economic growth). This study's results are not in line with the results of research (Tambunan, 2016), which states that Islamic mutual funds have a positive sign but are not significant to Indonesia's GDP. Likewise, research conducted by (Sari et al., 2016) states that investment is not significant and has a negative relationship to provincial economic growth in Indonesia.

Several reasons why mutual funds negatively affect economic growth in Indonesia include market risk, namely the risk of price fluctuations caused by changes in market factors. This risk is also called the risk of reducing the Net Asset Value per Mutual Fund Participation Unit. These market factors include the publication of financial reports and macroeconomic data (exchange rates, economic growth, etc.), indicating a decline in performance or performance below expectations. This decline in performance could also be due to negative sentiment from foreign investment, which impacts investment in Indonesia (Rudiyanto, 2016).
The effect of monetary policy on economic growth

The coefficient value of the exchange rate variable was obtained at 62.01892 with a positive coefficient direction and a probability value of 0.9271 because the probability value was greater than 0.05, the exchange rate had no positive effect on gross domestic product. This study's results are not in line with research (Salim, 2017), which states that an increase in the money supply and the depreciation of the exchange rate against the USD affect Indonesia's inflation conditions. However, it is in line with research by (Hidayatullah, 2017), that the exchange rate that depends on the exchange rate system (Kurs * Dummy) on Indonesia's economic growth is positive but not significant the 0.05 significance level.

Several reasons for the insignificant effect of the exchange rate on Indonesia's economic growth, among others, is that the more open the Indonesian economy is, the more vulnerable it will be to external shocks, especially in exchange rate movements. The pressure on the Rupiah was also a result of investors' attitude who began to be vigilant in anticipation of the Fed's rate hike plan. China's policy to evaluate the Yuan caused a global reaction, causing almost all currencies to experience depreciation (Faisal & Irfani, 2015).

The influence of zakat, infaq & sadaqoh on economic growth

The zakat's coefficient value, infaq, sadaqah variable is -0.0000000215 with a negative coefficient direction and a probability value of 0.6302. The probability value is greater than 0.05 zakat, infaq, sadaqoh does not affect the gross domestic product. This study's results are not in line with research (Anggraini, 2016), which states that zakat, infaq and sadaqoh positively affect Indonesia's economic growth. However, this research is in line with research (Fatimatuz & Mafraini, 2017), which states that zakat, infaq, sadaqoh does not affect the rate of economic growth.

The causes of the zakat variables, infaq, and sadaqah that are negative and insignificant to Indonesia's economic growth are partly because zakat management in Indonesia is not optimal even though the government has issued a law zakat management. One of the contributing factors is a system and institutional factors. The law has not fully disciplined the real management of zakat, such as the absence of a deterrent effect on muzakki who neglects to pay zakat or a form of punishment for the late payment of zakat (Mufidah, 2016)

4. Conclusion

Based on the test results, the following results were obtained: (1) The mutual funds (investment) variable was negative and significant to economic growth (GDP), (2) the monetary policy variable (rupiah exchange rate) was positive and insignificant towards economic growth (GDP)., (3) the ZIS variable is negative and insignificant on economic growth (GDP), and (4) the independent variable consisting of investment, monetary policy, and zakat, infaq, sadaqah simultaneously affects Indonesia's economic growth. In the next research, it is equalized using variables that significantly affect economic growth, such as stocks, bonds, micro and small businesses and so on, to get better research results. If the next researcher is interested in carrying out similar research, the researcher should use a greater number of observations to produce better conclusions. The limitations of this study include the results of the hypothesis that are not in accordance with the results of statistical tests, the number of observations is still small, only 6 years in panel data

5. Acknowledgement

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6. References


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