The Effect of Macroeconomic Variables on the Amount of Zakat Receipts in Indonesia

Siti Zubaidah[*] and Ahmad Munawar

Universitas Airlangga, Indonesia.

Abstract

Purpose - *This study aims to explain the effect of macroeconomic variables on the number of zakat receipts in 2016-2020 at BAZNAS. Macroeconomic variables in this study consist of GDP per capita, inflation, and exchange rates.*

Methodology - *The method used in this research is the quantitative method with multiple regression analysis models. The data used are secondary data from BI, BPS, and zakat financial reports in BAZNAS.*

Findings - *This study indicates that the macroeconomic variables consisting of GDP per capita, inflation, and exchange rates do not affect the number of zakat receipts. The independent variables of GDP per capita, inflation, and the exchange rate can only explain their effect on the total zakat receipts of 36.91%. Other variables explain the remaining 63.09% outside of research.*

Keywords: *GDP Per Capita, Inflation, Exchange Rate, Zakat.*

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[*] Corresponding author: siti.zubaidah19@feb.unair.ac.id

1. INTRODUCTION

Zakat is one of the maaliyah ijtima'iyyah practices that has a crucial, strategic, and decisive position, both from the point of view of Islamic teachings and developing the welfare of the people. Paying Zakat is an obligation for every Muslim who has met the requirements to pay it (Hafidhuddin, 2008). Yusuf Qardawi in (Triantini, 2010) reveals that Zakat has an essential role in society and the state, including in the social, economic, political, moral, and religious dimensions. The spirit of Zakat is to eliminate social inequality in society.

In the context of the Indonesian state, the zakat management organization (OPZ) has a huge role in efforts to collect Zakat maximally (Baznas, 2020). The collection of Zakat both by Baznas and Laz from year to year continues to increase as stated in figure 1. It is noted that during the last ten years the increase has increased sharply:
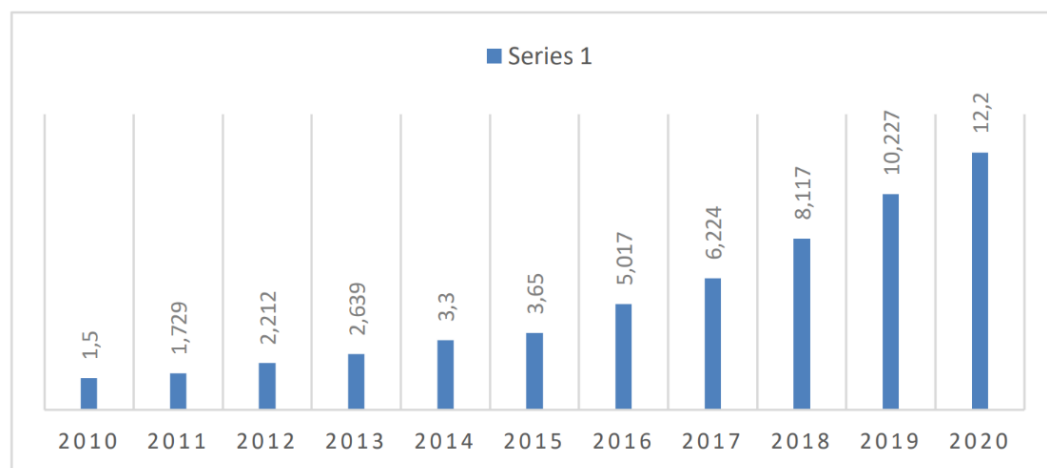

Figure 1. The Increase in The Amount of Zakat Receipts (2010 – 2020)
Source: Baznas (2020) (processed data)

Furthermore, the collection of Zakat is very dependent on macroeconomic variables. Among them is Gross Domestic Product (GDP). GDP is the amount of added value produced by all business units in a particular country or the sum of all economic units' final goods and services (see: https://www.bps.go.id/subject/11/produk-domestik-bruto--lapangan-usaha-.html). However, to describe the real regional and national development, GDP per capita is often used. GDP per capita is the amount of GDP divided by the number of residents in the country and the region concerned or can be referred to as average GDP (Mahendra, 2016). Natiq (2019), in his research, revealed that the GRDP (GDP) on Zakat has a positive effect. So that concludes that if GDP rises, zakat collection will increase.

Then what affects the amount of zakat collection is the inflation rate. In general, inflation increases the general price level of goods/commodities and services during a specific period (Sukirno, 2010). In research conducted by (Afendi, 2018), the effect of inflation on the number of zakat receipts is negative and significant. In line with Afendi, (Armina, 2020; Rio, 2016; Saadilah, Kusnendi, & Firmansyah, 2019). (Rio, 2016) and (Saadilah, Kusnendi, & Firmansyah, 2019) research are the same; namely, inflation on the number of zakat receipts is negative and significant.

Furthermore, the macroeconomic variable that affects the collection of Zakat is the exchange rate. According to (Mankiw, 2007), the currency exchange rate between two countries is the

currency's price used by residents of that country to trade with one another. In research conducted by (Armina, 2020), the exchange rate (dollar exchange rate) effect has a significant negative effect on Zakat.

Based on the above discussion, this study will examine the effect of macroeconomic variables (GDP per capita, inflation, and exchange rates) on the collection of zakat funds at Baznas further in the 2016-2020 period. Zakat collection is closely related to macroeconomic indicators because macroeconomics is an indicator of social welfare. The author chose this year because it is based on that year Baznas has a Strategic Plan (2016-2020) where the 2016-2020 Baznas Strategic Plan aims to unify the vision and mission of national zakat management to optimize existing resources both Baznas at the national level, Provincial Baznas, District Baznas / City, as well as Laz at various levels according to the potential in each region. Another reason that motivates the writer to carry out further research on the relationship of macroeconomic variables to Zakat is that at the end of 2019 and throughout 2020 as depicted in figure 2, Indonesia experienced the Covid-19 pandemic where economic conditions were experiencing a recession in that year. Recession conditions certainly have an impact on the welfare of the community, especially the lower economic class.
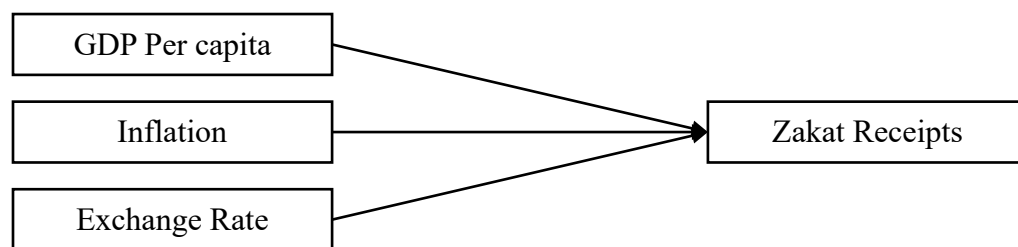

Figure 2. Illustration of Framework

2. LITERATURE REVIEW

2.1. THEORETICAL FOUNDATION

2.1.1. GDP Per Capita

GDP or Gross Domestic Product (GDP) is an indicator to measure total income in the economy or total expenditure of goods and services (Mankiw, 2013). According to Rahardja and Manurung in Natiq (2019), the value of final goods and services is based on market prices produced by the economy in a period by using production factors in the economy. In this definition, there are three things: final products and services, production factors, and market prices located in the country concerned.

However, to describe the real regional and national development used is GDP per capita. GDP per capita is the amount of GDP divided by the number of people in the country or region concerned, or it can be referred to as GDP. It is essential to measure the country's population's prosperity, GDP per capita periodically (periodically), usually one year.

The benefits of calculating GDP per capita include: first, to see the level of comparison of the welfare of country welfare from year to year; second, as a comparison of the welfare data of a country with other countries. From the GDP per capita of each country, it can be seen the level of welfare of each country; third, as a comparison of the standard level of a country with other countries by taking the basis of GDP per capita from year to year, it can be concluded whether the GDP per capita of a country is low (low), medium or high; fourth, as data to take policies in the economic sector (Mahendra, 2016).

2.1.2. Inflation

Another variable that affects macroeconomic conditions is inflation. In general, inflation can lead to reduced investment in a country, increase interest rates, encourage speculative investment, failure to implement development, economic instability, a deficit in the balance of payments, and a decline in the level of life and welfare of the people (Pangiuk, 2015). Meanwhile, according to (see: https://sirusa.bps.go.id/sirusa/index.php/indikator/570), the definition of inflation is an event that shows an increase in the price level in general and takes place continuously. Meanwhile, the use of calculating the value of inflation in one period is for indexation of wages and employee salary benefits (wage indexation), adjustment of contract value (contractual payment), escalation of project values (project escalation), determination of inflation targets (inflation targeting), indexation of income and expenditure budgets. Country (budget indexation), as a divider for GDP, GDP deflator, as a proxy for changes in the cost of living (proxy of cost of living), early indicators of interest rates, foreign exchange, and stock price index.

2.1.3. Exchange Rate

Then the variable that affects macroeconomic conditions is the exchange rate. The term exchange rate is commonly referred to as an exchange rate. According to (Mankiw, 2013), the currency exchange rate between two countries is the currency's price used by residents of that country to trade with one another. This exchange rate measurement is generally influenced by changes in the price level prevailing in a country compared to price levels in its partner countries. Exchange rates are significant because: first, international trade (exports and imports) can be done; second, payment of commercial and financial transactions between countries can be carried out; third, the payment traffic cooperation between world foreign exchange banks can be implemented; fourth, buying and selling foreign currency (foreign exchange) can be done, and fifth, people can travel between countries using exchange rates (Saleh, 2016).

The exchange rate becomes a variable that determines the value of the zakat collection. (Armina, 2020) reveals that it has a significant negative effect on Zakat. This is because someone who has an income in the form of rupiah when there is an increase in the dollar against the rupiah tends to reduce their purchasing power. After all, the price of goods is increasing, unlike the case with people who get income in dollars, so that Zakat is also spent more and more, although it is still rare that they get income in dollars.

2.1.4. Zakat Receipts

According to (Ridlo, 2014), Zakat in terminology is the level of certain assets, which are given to those who are entitled to receive them, with several conditions. Every Muslim is obliged to pay

Zakat if it fulfills the mandatory requirements of Zakat which is then submitted to the mustahiq. In the reform era after Law No. 38 of 1999, national Zakat underwent a significant transformation marked by three main phenomena: revitalization, innovation, and diversification of zakat utilization programs for the welfare of the people. The traditional zakat utilization program, which is solely charitable and distributing money, is no longer sufficient to free people from poverty. With development and empowerment programs, people will have the financial capital they need to seize opportunities and better income (Wibisono, 2016).

3. METHODOLOGY

This research uses quantitative methods. The type of data used in this study is secondary data. GDP per capita data is obtained from the Central Bureau of Statistics (see: www.bps.go.id). Then the inflation and exchange rate data were obtained from the official website of Bank Indonesia (see: www.bi.go.id). Meanwhile, data on zakat acceptance is obtained from the PPID Baznas RI Financial Report (see: www.pid.baznas.go.id). The data sample taken in this study is quarterly data during 2016 to 2020. The reason for taking this year comes from the BAZNAS Strategic Plan, which is supported by the rampant socialization, digitization, and innovation of its programs so that it affects the receipt of Zakat in BAZNAS.

This study uses multiple regression analysis models, which are used to see the effect of variables with the Ordinary Least Square equation. According to Gujarati (2003), the Ordinary Least Squares (OLS) method is used to estimate two-variable regression model parameters. The regression equation is as follows:

$$Y = a + b1X1 + b2X2 + b3X3 \quad (1)$$

Where:
Y = Receipt of zakat;
a = Constant;
b = Regression coefficient value;
X1 = GDP per capita;
X2 = Inflation;
X3 = Exchange Rate;
e = The term error.

4. RESULTS AND DISCUSSION

4.1. RESULTS

4.1.1. Classical Assumption Test Results

Based on the research results, the classical assumption test results are obtained, which will be explained as follows:
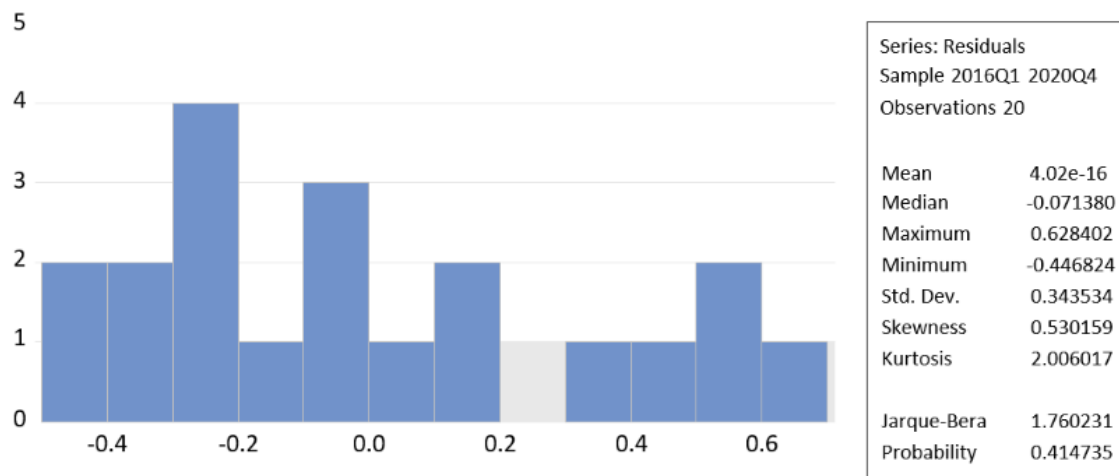
4.1.1.1. Normality Test

Series: Residuals
Sample 2016Q1 2020Q4
Observations 20

Mean	4.02e-16
Median	-0.071380
Maximum	0.628402
Minimum	-0.446824
Std. Dev.	0.343534
Skewness	0.530159
Kurtosis	2.006017
Jarque-Bera	1.760231
Probability	0.414735

Figure 3. Normality Test Results
Source: Processed Data 2021

The graph on the figure 3 above shows that the Jarque-Bera probability value is 1.7602> 0.05, so it can be concluded that the regression model is usually distributed.

4.1.1.2. Autocorrelation Test

Table 1. The Breusch-Godfrey Serial Correlation LM Test Autocorrelation Test Results

F-statistic	0.908115	Prob. F (2,14)	0.4258
Obs*R-squared	2.296665	Prob. Chi-Square (2)	0.3172

Source: Processed Data 2021

The table 1 above shows that the calculated F probability value (2.14) is 0.4258, which is greater than 0.05 so that the regression model does not occur autocorrelation.

4.1.1.3. Heteroscedasticity Test

Table 2. Heteroscedasticity Test Results

F-statistic	0.715396	Prob. F (8,11)	0.6758
Obs*R-squared	6.844600	Prob. Chi-Square (8)	0.5535
Scaled explained SS	2.203452	Prob. Chi-Square (8)	0.9741

Source: Processed Data 2021

Heteroscedasticity test in this study using the White test. The table 2 above shows that the calculated F probability value is 0.6758, which means it is greater than 0.05 so that the regression model does not occur heteroscedasticity.

4.1.1.4. Multicollinearity Test

Table 3. Multicollinearity Test Results

VARIABEL	ZAKAT	PDBPER	INF	KURS
ZAKAT	1.000000	0.662280	-0.534008	0.578926
PDBPER	0.662280	1.000000	-0.595758	0.800853
INF	-0.534008	-0.595758	1.000000	-0.697481
KURS	0.578926	0.800853	-0.697481	1.000000

Source: Processed Data 2021

The table 3 above illustrates the relationship between variables with each other. The table above shows that the value is less than 1, meaning that the variables do not influence each other.

4.1.1.5. Result of Multiple Linear Regression Analysis

Table 4. Results of Multiple Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.17611	34.98840	0.433747	0.6703
PDBPER	3.168160	1.820200	1.740556	0.1010
INF	-0.129348	0.153489	-0.842718	0.4118
KURS	0.036665	3.954326	0.009272	0.9927
R-squared	0.468763	Mean dependent var		23.37210
Adjusted R-squared	0.369156	S.D. dependent var		0.471330
S.E. of regression	0.374357	Akaike info criterion		1.049643
Sum squared resid	2.242291	Schwarz criterion		1.248789
Log-likelihood	-6.496428	Hannan-Quinn criteria.		1.088518
F-statistic	4.706134	Durbin-Watson stat		2.261936
Prob(F-statistic)	0.015366			

Source: Processed Data 2021

The table 4 above shows that the probability value of each variable is greater than 0.05. GDP per capita variable was 0.1010> 0.05, then the inflation variable was 0.4118> 0.05, then the dollar exchange rate (exchange rate) was 0.9927> 0.05. This means that each variable, GDP per capita, inflation, and exchange rate, does not significantly affect the number of zakat receipts. Meanwhile, the Adjusted R-Squared value is 0.3691 or 36.91%. This shows that the independent variables GDP per capita, inflation, and the exchange rate can only explain the effect on the amount of Zakat received by 36.91%.

4.2. DISCUSSION

This study aims to explain the effect of macroeconomic variables on the number of zakat receipts in 2016-2020. Macroeconomic variables in this study consist of GDP per capita, inflation, and exchange rates.

Multiple regression analysis shows that the H1 statement, GDP per capita, does not affect the amount of Zakat received. The results of this study differ from previous studies that GDP affects the number of zakat receipts. If GDP rises, aggregate income will increase so that the number of zakat receipts will increase (Aksar, 2019; Mankiw, 2007). However, this study explains that even though the GDP per capita in a country increase, it does not necessarily affect the number

of zakat receipts. While the H2 statement, inflation does not affect the number of zakat receipts. It is different from previous research, which states that if inflation rises, it will affect the level of one's consumption where income is consumed more for what is needed so that people's ability to pay zakat decreases and the amount of Zakat received will decrease (Afendi, 2018; Armina, 2020; Rio, 2016; Saadilah, Kusnendi, & Firmansyah, 2019).

Meanwhile, this study illustrates that, although inflation increases, the amount of zakat receipts rises. Then the H3 statement, the exchange rate does not affect the amount of Zakat received. This means that even though the rupiah exchange rate against the dollar increases, the number of zakat receipts will increase. This is in line with previous research, which states that the exchange rate has a positive effect on the amount of Zakat received. If the foreign exchange rate (dollar exchange rate) against the rupiah rises, it will have a good impact on someone who has income in dollars to increase zakat receipts (Afendi, 2018; Dwitama & Widiastuti, 2016).

The above statement explains that to influence the increase or decrease in the number of zakat receipts, one cannot just look at the influence of macroeconomic variables. However, in this case, the level of one's religiosity significantly affects compliance with paying Zakat (Abdullah & Sapiei, 2018; Farouk, Idris, & Saad, 2018; Idris, Bidin, & Saad, 2012). (Abdullah & Sapiei, 2018) stated that every Muslim with solid religious values is likely to comply with the obligation of Zakat. Meanwhile, (Farouk, Idris, & Saad, 2018) stated that religiosity is one of the main motivations and determinants of intention to carry out religious obligations such as Zakat.

Of all the hypotheses in this study, although the results do not affect, they can be a reference for the Zakat Institution to continue to strive to increase public understanding of the importance of paying Zakat to increase the amount of zakat receipt itself.

5. CONCLUSION

This study indicates that the macroeconomic variables consisting of GDP per capita, inflation, and exchange rates do not affect the number of zakat receipts. The independent variables of GDP per capita, inflation, and exchange rate can only explain the effect on the number of zakat receipts of 36.91%. Other variables explain the remaining 63.09% outside of research. This research contributes to a new theory that the macroeconomic variables that describe the decline in the economy will not always affect the number of zakat receipts, but what happens is the opposite. However, even though the results do not affect, it can be a reference for the Zakat Institution to continue to improve public understanding of the importance of paying Zakat to increase the amount of zakat receipt itself. Based on the findings in this study, there are several limitations in this study. First, data is taken only from 2016-2020. This means that the effects can be seen if the data is collected over a more extended period. Second, there are still few macroeconomic variables used. Thus, future research is expected to select a more extended period and add several macroeconomic variables such as the money supply, IPI, etc.

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