

# Sekolah Tinggi Ilmu Ekonomi Indonesia

## Template Naskah Publikasi Karya Ilmiah

### Skripsi dan Tesis

#### Tahun Akademik 2019/2020

#### Ketentuan Umum:

1. Naskah Publikasi dibuat dalam dua Bahasa (Bahasa Indonesia dan Bahasa Inggris)
2. Naskah Publikasi wajib diunggah ke <http://repository.stei.ac.id>
3. Naskah Publikasi wajib dibuat sesuai dengan template yang berlaku dan diunggah ke repository STEI dalam format PDF file.
4. Format nama file skripsi/tesis/laporan tugas akhir:  
**NPM\_NAMA\_BIDANG KAJIAN\_TAHUN**
5. Format Nama file naskah publikasi
  - a. **NPM\_Artikel Indonesia\_Tahun**
  - b. **NPM\_Artikel Inggris\_Tahun**
6. Isi naskah publikasi diketik dengan Times New Roman fonts 11, 1 spasi, sekitar 15-25 halaman (A4 paper) termasuk daftar referensi.
7. Gunakan nomor halaman di pojok kanan bawah
8. Komposisi penulis pada naskah publikasi:
  - a. Penulis pertama: Mahasiswa STEI
  - b. Penulis kedua dst: Dosen Pembimbing
  - c. Email dosen yang dicantumkan di naskah publikasi, menggunakan email stei.ac.id

Template naskah publikasi ini diadaptasi dan disesuaikan dari <https://ejournal.stei.ac.id/>

## **INFLATION RATE, RUPIAH EXCHANGE RATE AND INTEREST RATE ON INCOME TAX RECEIPTS (PPh) AT THE DIRECTORATE GENERAL OF TAX**

**Rahmah Intan Syahputri, Merliyana**

Accounting Department

Indonesia College of Economics

Jakarta, Indonesia

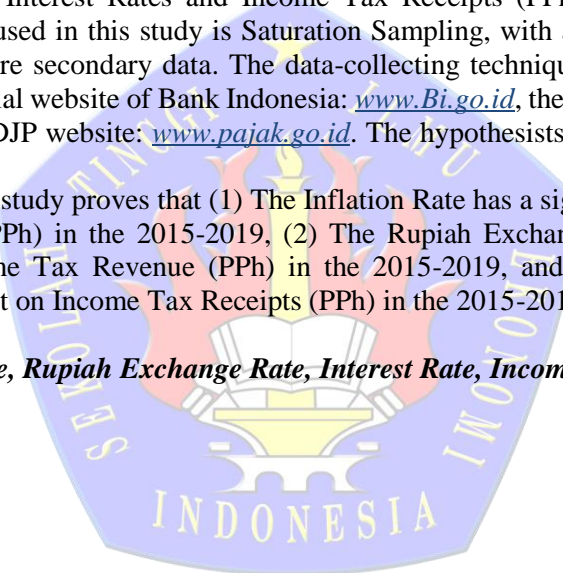
[rahmahintansyahputri@gmail.com](mailto:rahmahintansyahputri@gmail.com); [merliyana@stei.ac.id](mailto:merliyana@stei.ac.id)

**Abstract** - This study aims to test whether the Inflation Rate, Rupiah Exchange Rate, and Interest Rate on Income Tax Receipts (PPh) at the Directorate General of Taxes in the 2015-2019.

This study uses a descriptive quantitative approach, which is measured using a method based on multiple linear regression with Eviews 10.0. The populations on this study are the Inflation Rate, Rupiah Exchange Rate, Interest Rates and Income Tax Receipts (PPh) in the 2015-2019. The sampling method being used in this study is Saturation Sampling, with a total of 60 samples. The data used in this study are secondary data. The data-collecting technique uses the documentation method through the official website of Bank Indonesia: [www.Bi.go.id](http://www.Bi.go.id), the Central Statistics Agency: [www.bps.go.id](http://www.bps.go.id), and the DJP website: [www.pajak.go.id](http://www.pajak.go.id). The hypothesisists are being tested using the T test.

The result of the study proves that (1) The Inflation Rate has a significant positive effect on Income Tax Revenue (PPh) in the 2015-2019, (2) The Rupiah Exchange Rate has a significant positive effect on Income Tax Revenue (PPh) in the 2015-2019, and the Interest Rate have a significant negative effect on Income Tax Receipts (PPh) in the 2015-2019.

**Keywords:** *Inflation Rate, Rupiah Exchange Rate, Interest Rate, Income Tax Receipts*



## **I. INTRODUCTION**

Indonesia as one of the developing countries in Asia is intensively implementing development. The achievement of optimal development is certainly very much influenced by optimal tax revenue. One of the indicators of the success of state administration is the implementation of the National Development Program, which for annual implementation of the State Revenue and Expenditure Budget is prepared by the Government and the House of Representatives. The State Revenue and Expenditure Budget (APBN) is prepared in accordance with the needs of state administration and the ability to collect state revenues in the context of the realization of a national economy based on economic democracy with the principles of togetherness, equitable efficiency, sustainability, environmental awareness, independence and by maintaining a balance of progress and economic unity national.

The largest contributor to Indonesia's state revenue comes from the tax sector, which is 86% vulnerable per year in the last 5 years ([www.pajak.go.id](http://www.pajak.go.id)). Taxes are the transfer of sources from the private sector to the government sector, not as a result of violation of the law, but must be implemented, based on predetermined provisions and without receiving direct compensation from the proportions, so that the government can carry out its duties to run the government (Waluyo, 2011: 2 ). From the percentage of tax revenue, the largest position was taken by income tax (PPh) amounting to Rp 634,124 trillion or reaching 82.95% per year. In 2015, the realization of income tax (PPh) was Rp. 464.66 trillion or 90.46 percent of the target of Rp. 513.65 trillion. Compared to the previous year, income tax receipts grew by 7.79 percent ([www.bps.go.id](http://www.bps.go.id)). Income tax revenue has grown every year. If tax revenue is disrupted, it can have an impact on government activities. So that tax revenue is not disturbed, it is necessary to anticipate things that affect tax revenue. The principle of prevention is better than cure also applies in the management of state finances.

Broadly speaking, the things that affect tax revenue can be divided into two, namely macro and micro. Micro or directly related to tax revenue has been discussed a lot. For example regarding tax compliance, tax resistance. From the macro side, not as much as from the micro side, the consideration is that the macro side does not have a direct effect on tax revenue. However, it should be noted that the macro side will have a very big impact. The macro sides include inflation, the rupiah exchange rate, and the interest rate (Sitinjak, 2016).

The Indonesian state has never been free from the problem of inflation. The Central Statistics Agency noted that inflation throughout 2015 reached 6.38%. This achievement is the highest during the 2015-2019 period. Consecutive annual inflation in the 2015-2019 period was 6.38%; 3.56%; 3.81%; 3.20% and the lowest occurred in 2019 at 3.03%. Low inflation in 2019 is due to relatively controlled volatile goods prices, the government can reduce the rate of inflation in Indonesia ([www.bps.go.id](http://www.bps.go.id)).

Another macroeconomic variable is the exchange rate. The exchange rate is a comparison between the currency value of a country and another country (Handiani, 2014: 88). The rupiah exchange rate has depreciated considerably against the United States dollar (US) in the five years of President Joko Widodo (Jokowi) administration. The uncertainty in the global economy and the high demand for US dollars in the domestic market have meant that the rupiah is now above Rp. 14 thousand. According to data from the Jakarta Interbank Spot Rate Dollar (JISDOR), the rupiah exchange rate was at the level of Rp. 14,172 per US dollar on October 17, 2019. This value is 17.7 percent lower than the position on October 20, 2014, the day Jokowi's appointment to be the 7th president. According to Bank Indonesia (BI) data, the rupiah exchange rate weakened to close to Rp. 15 thousand per US dollar in 2015. In fact, the rupiah had weakened to Rp. 15,253 per US dollar in 2018 and was the worst level in five years.

The weakening of the rupiah exchange rate against the USD in 2018 resulted in Bank Indonesia (BI) taking a policy by raising the benchmark interest rate. Bank Indonesia (BI) has raised the benchmark interest rate or the BI 7-Day Reverse Repo Rate six times. From May to December, the benchmark interest rate rose 175 bps from 4.50% to 6.00%. At the beginning of the year, Bank

Indonesia's benchmark interest rate was pegged at 4.25%. BI has retained the interest rate until April. Then in May, BI began to raise the benchmark interest rate to 4.50% (economy.okezone.com).

By understanding that the global and national economic situation will continue to move dynamically, which will make the macroeconomic assumptions change at any time. Nevertheless, through various measures and policies that continue to be increasingly integrated, the Government will endeavor so that macro assumptions in terms of economic growth, inflation, rupiah exchange rates and interest rates can be maintained and realized according to initial calculations, which means that efforts need to be made so that their impact on the budget and economy not very significant.

Studies to obtain empirical evidence linking the pattern of the relationship between the inflation rate and tax revenue have found different results. The first research by Renata et al (2016) states that the inflation rate has an influence on tax revenue, while research conducted by Mispriyanti and Kristanti (2017) says that the inflation rate has a negative effect on tax revenue. Meanwhile, studies linking exchange rates with tax revenues find differences in the results of research or GAP from previous studies, research conducted by Sumidartini (2017) found that the rupiah exchange rate has a positive effect on tax revenue, while research conducted by Renata et al. (2016) stated that the rupiah exchange rate had no effect on tax revenue. Studies linking interest rates with tax revenue have different results from previous research, such as research conducted by Syairozi and Fatah (2017) showing that interest rates do not have a significant effect on income tax revenue (PPH) and while research conducted by Harahap et al. al (2018) shows the opposite result, that the interest rate has a positive impact on tax revenue.

Based on a review of the phenomenon and researches above, in order to obtain empirical evidence of the effect of macroeconomic variables on tax revenue, it gives different results. The author is interested in making research with the title Inflation Rate, Rupiah Exchange Rate and Interest Rates on Income Tax Receipts at the Directorate General of Taxes.

## **REVIEW OF RESULTS OF PREVIOUS RESEARCH**

Damayanti et al (2019) regarding the effect of inflation, economic growth, and tax rates on tax revenue in Asian countries, this study uses a quantitative approach with an explanatory research method. The results showed that the level of inflation, economic growth, and tax rates had a significant effect on tax revenues in Asian countries. The coefficient of determination in this study is 0.361, which means that 36.1% of tax revenue in Asian countries is influenced by these independent variables, and the rest is explained by other variables.

Research conducted by Sumidartini (2017), regarding the effect of the rupiah exchange rate and interest rates on tax revenue at the Directorate General of Taxes, uses a quantitative approach with secondary data found at the Central Statistics Agency (BPS), Bank Indonesia, and the Directorate General of Taxes. The research was conducted using the library research method. The results of this study indicate that there is an influence between the rupiah exchange rate and tax revenue with an effect of 47.90% with a unidirectional nature (positive), there is an influence between the interest rate and tax revenue of 52.20% with an unidirectional nature (negative), and There is a significant relationship between, the rupiah exchange rate, and the interest rate together on tax revenue.

Research conducted by Renata et al (2016), regarding the effect of inflation, the rupiah exchange rate and the number of taxable entrepreneurs on value added tax (VAT) revenue. This research uses a quantitative approach with explanatory research type. The results of this study found that inflation had a positive effect on VAT revenues, the exchange rate had a negative effect on VAT revenues, and that the amount of PKP had a positive effect on VAT revenues.

Research conducted by Harahap et al (2018), entitled the impact of policy and macroeconomics on the effectiveness of tax revenue on the Indonesian stock exchange. The research method uses quantitative methods. Research uses secondary data from two sectors, namely the Consumer Goods Industry (IBK) sector and the Infrastructure, Utilities and Transportation (IUT)



sector for the 2010-2015 period sourced from the IDX. The results of this study find that there is a positive relationship between the exchange rate (macroeconomic) and tax policy, then an increase in inflation has a significant positive impact on increasing tax revenue and ETR in both sectors, and a reduction in BI interest rates has a positive impact on tax revenue and ETR in both sectors.

Research conducted by Mispiyanti and Kristanti (2017), on the analysis of the effect of GDP, inflation, exchange rates, and labor on tax revenues in the districts of Cilacap, Banyumas, Purbalingga, Kebumen and Purworejo. This research was conducted for a period of 3 years, namely 2012, 2013, 2014 and 2015 with the sample in this study using a non-probability sampling technique with saturated sampling technique. The results of this study found that partially, PDRB and labor have a positive effect on tax revenue in the districts of Cilacap, Banyumas, Purbalingga, Kebumen and Purworejo, while inflation and exchange rates have no effect on tax revenue in Cilacap, Banyumas, Purbalingga, Kebumen and Purworejo districts. Simultaneously, GRDP, inflation, exchange rate and labor have a significant effect on tax revenue in the districts of Cilacap, Banyumas, Purbalingga, Kebumen and Purworejo.

## **II. THEORY FOUNDATION AND HYPOTHESIS DEVELOPMENT**

### **Taxes**

Tax according to Law Number 16 of 2009 concerning the fourth amendment to Law Number 6 of 1983 concerning General Provisions and Tax Procedures in article 1 paragraph 1 reads "tax is an obligatory contribution to the state owed by people. Forcing individuals or bodies based on law, without receiving direct compensation and being used for the state's needs for the greatest prosperity of the people" (Mardiasmo, 2016: 3). In other words, tax is a transfer of resources from the private sector to the government sector, not as a result of a violation of the law, but must be implemented, based on predetermined conditions and without receiving direct compensation from its proportions, so that the government can carry out its duties to run the government (Waluyo, 2011: 2).

### **Income Tax Revenue**

Mardiasmo (2011: 135) Payers are taxed on income received and earned during a tax year for income in part of the tax year if the subjective tax liability begins or ends in the tax year. Meanwhile, according to the official (2011: 74), income tax is a tax that is imposed on a tax subject on income received or earned in a tax year. The object of Income Tax is income, which is any additional economic capability received or obtained by a Taxpayer (WP), both from Indonesia and from outside Indonesia, which can be used for consumption or to increase the wealth of the taxpayer concerned under whatever name and form.

### **Fiscal Policy**

Fiscal policy is one of the macroeconomic policies whose main authority is in the hands of the government and is represented by the Ministry of Finance. This is regulated in Law Number 17 of 2003. Fiscal policy refers to policies made by the government to direct the economy of a country through spending (spending) and income (taxes). Fiscal policy is different from monetary policy, which aims to stabilize the economy by controlling interest rate and the amount of money in circulation. The main instruments of fiscal policy are taxes and government spending (Amiruddin, 2018: 152).

### **Inflation**

M. Natsir (2014: 253) states that the definition of inflation "Inflation is the tendency to increase the price of goods and services in general and continuously." Meanwhile, Bank Indonesia defines inflation, namely the increase in prices in general and continuously. An increase in just one or two goods cannot be called inflation unless the increase spreads (or results in price increases) for other goods. Inflation is called deflation ([www.bi.go.id](http://www.bi.go.id)).

### **The Rupiah Exchange Rate**

Trading international brokers will encourage the exchange of two or more different currencies. This transaction will result in a supply and demand for a certain currency, here are some definitions of exchange rates. According to Nopirin (2012: 163) Prices in the exchange of two different currencies, there will be a comparison of the value or price between the two specific currencies, this value comparison is called the exchange rate.

### **Interest Rate**

The interest rate is the price of the use of money expressed in percent for a certain period of time, here are some definitions of the interest rate. According to Sunariyah (2011: 80) "The price of the loan. Interest rates are expressed as a percentage of the principal per unit time ". According to Boediono (2014: 76) "The interest rate is an indicator in determining whether someone will invest or save".

### **Inflation Rate on Income Tax Revenue (PPh)**

According to M. Natsir (2014: 253), Inflation is the tendency of increasing prices of goods and services in general and continuously. The inflation rate can affect income tax revenue because with inflation, people will reduce their level of spending due to the increasing price of goods and the decreasing value of the currency. This is due to the large amount of money circulating in the community that reduces the value of the currency. Many companies or business entities are disrupted in marketing their products because the level of public spending has decreased which has an impact on decreasing income received which results in lower taxes paid to the state.

### **H1 : Inflation rate has a positive effect on Income Tax Receipts (PPh).**

### **Rupiah Exchange Rate Against Income Tax Receipts (PPh)**

International trade will encourage the exchange of two or more different currencies. This transaction will result in a supply and demand for a certain currency, here are some definitions of exchange rates. According to Nopirin (2012: 163) Prices in the exchange of two different currencies, there will be a comparison of the value or price between the two specific currencies, this value comparison is called the exchange rate.

A stable exchange rate condition will encourage the business world to carry out its activities calmly, especially for businesses that use foreign currencies in their transactions. Extreme exchange rate fluctuations can cause the company to lose money or even collapse and cannot continue its business activities. In calculating net income for tax purposes, the loss due to foreign exchange is a cost that can be deducted from gross income so that the greater the loss due to foreign exchange differences, the smaller the profit the company gets so that the income tax paid is also getting smaller (Sumidartini, 2017).

### **H2 : The Rupiah Exchange Rate has a positive effect on Income Tax Receipts (PPh).**

### **Interest Rates Against Income Tax Receipts (PPh)**

According to Sumidartini (2017) domestic interest rates are closely related to international interest rates. This is due to good access to the domestic financial market to international financial markets and an inflexible exchange rate policy. The increase in access has exacerbated constraints on Bank Indonesia's monetary management. Any attempt to influence the money supply by increasing interest rates above international interest rates will be subject to disruption from short-term capital inflows. However, Bank Indonesia appears to be able to maintain the degree of freedom of some domestic interest rates so that they can still influence domestic interest rates without changing the exchange rate policy. When the interest rate is high, the company's costs will increase

(because interest is a cost) so that the cost of goods increases, profits are reduced, and taxes payable are reduced (Sumidartini, 2017).

**H3 : Interest rates have a positive effect on Income Tax Receipts (PPh).**

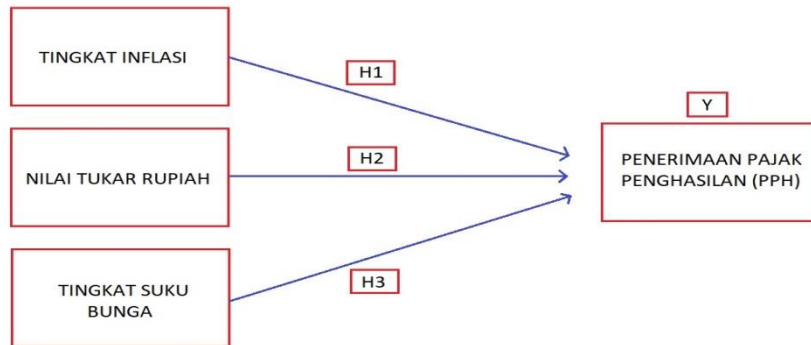


Figure 1. Conceptual framework

### III. RESEARCH METHODS

#### The Research Strategy

Strategy used in this research is associative causal. Sugiyono (2017: 36-37) also states that causal associative is the formulation of a research problem that asks about the relationship between two or more variables. A causal relationship is a relationship that is causal in nature, so in this study there are independent (influencing) and dependent (influenced) variables. Causal associative is used to determine the extent of the causal relationship of the influence of the Inflation Rate, Rupiah Exchange Rate, and Interest Rate on Income Tax Receipts. In this study, the Inflation Rate as variable X1, Rupiah Exchange Rate as variable X2, and Interest Rate as variable X3, while Income Tax Receipts (PPh) as variable Y.

#### Population and Sample

Population in this study are inflation data, Rupiah Exchange Rate, Interest rates and income tax (PPh) receipts in Indonesia in the period 2015-2019 taken each month totaled 60 observations. The sampling technique used in this study was saturated sampling. According to Sugiyono (2017: 85) is a sampling technique when all members of the population are sampled, this is done when the population is relatively small, less than 30, or research that wants to make generalizations with very small errors. In this study, the sample used is inflation data, the rupiah exchange rate, interest rates and income tax (PPh) income in the period 2015-2019, so the sample size is 60 observations.

#### Data and Data Collection Methods

In this study, the data studied were secondary data. According to Sugiyono (2017: 137) secondary data is a data source that does not directly provide data to data collectors. This secondary data is data that supports primary data needs such as books, literature and reading related to and supports this research. Secondary data is obtained from the website of Bank Indonesia, the Central Bureau of Statistics, and the Director General of Taxes through the sites [www.bi.go.id](http://www.bi.go.id), [bps.go.id](http://bps.go.id) and [tax.go.id](http://tax.go.id), the data in question includes inflation, Rupiah exchange rates and interest rates. . The data used in this research is time series data. The data is time series because the data in this study are data in certain time intervals, in this study, namely 2015-2019.

#### Dependent or Bound Variables

The dependent variable is the variable that is affected or that is the result, because of the independent variables (Sugiyono, 2017: 39). In this study the dependent variable studied was Income

Tax Receipts (Y). According to the Directorate General of Taxes (Dirjen Pajak) which is responsible for taxation policies, "income tax (PPh) is defined as tax imposed on an individual or entity (tax subject / taxpayer) on the income received on the income (tax object) in the Tax Year. ". In this study, an indicator of income tax revenue (PPh), according to Kuncoro (2013), is the PPh revenue target and the PPh revenue realization. In its operation, this variable is measured by a measurement instrument in a ratio scale.

### **Independent Variable**

The independent variable (X) is often referred to as the stimulus, predictor, and antecedent variable. In Indonesian it is often called the independent variable. Independent variables are variables that affect or cause changes or the emergence of the dependent variable (dependent) (Sugiyono, 2017: 39). In this study the independent variables studied were the Inflation Rate, the Rupiah Exchange Rate and the Interest Rate.

### **Inflation**

Inflation data measured based on the consumer price index (Consumer Price Index). The amount of CPI can be calculated using the Laspeyres Index with the following formula:

$$Laspeyres\ Index = \frac{\sum P_n Q_0}{\sum P_0 Q_0} \times 100\%$$

P<sub>0</sub> = the price level in effect in the initial year of observation,

Q<sub>0</sub> = the number of goods consumed in the initial observation period

P<sub>n</sub> = the price level in effect in year n.

### **Rupiah Exchange Rate**

In this study, the foreign currency used is US dollars and the domestic currency uses Rupiah. The exchange rate variable is also used in this study because the income tax (PPh) revenue used in the study also includes taxes on international trade activities so that the exchange rate variable is considered very important to see the real value of exports and imports of goods or services. Measurement of the exchange rate in this study uses the middle exchange rate. According to Mahyus Ekananda (2014: 201) the value of the middle exchange rate is calculated using the following formula:

$$Kurs\ Tengah = \frac{K_b + K_j}{2}$$

Information:

K<sub>b</sub>: Buying Rate

K<sub>j</sub>: Selling

### **Interest Rate**

The interest rate is the price of the use of money expressed in percent for a certain period of time. The measurement of interest rates in this study uses the BI Rate price, as explained by Bank Indonesia. "The BI Rate is a policy interest rate that reflects the attitude or monetary policy stance set by Bank Indonesia and announced to the public".



### Methods of Data Analysis

The research was conducted using secondary data found at the Central Bureau of Statistics (BPS), Bank Indonesia, and the Directorate General of Taxes. The analysis technique used is multiple linear regression, namely the classic assumption test, including normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test and hypothesis testing, including the coefficient of determination (R<sup>2</sup>) and Partial Hypothesis Test (T test). The data processing tool in this study uses the Eviews 10.0 program.

### Multiple Linear Regression Analysis

Multiple linear regression analysis is used to estimate the value of the dependent variable based on the value of the independent variable and the estimated change in the dependent variable for each unit change in the value of the independent variable. The multiple linear regression equation referring to Sugiyono (2017: 313) is as follows:

$$P.PPh = \alpha + \beta_1 TI + \beta_2 NTR + \beta_3 TSB + \varepsilon$$

Information:

P.PPh = Income Tax Revenue

$\alpha$  = Constant

$\beta_1$ - $\beta_2$  = regression coefficient

TI = Inflation Rate

NTR = Exchange Rate

TSB = Interest Rate

$\varepsilon$  = Level of error

### Partial Hypothesis Test (T Test)

T test is used to test the hypothesis partially to show the effect of each independent variable individually on the dependent variable. If the significance value of t is less than 0.05, then H<sub>0</sub> is accepted. Conversely, if the significance value of t is greater than 0.05, then H<sub>0</sub> is rejected. H<sub>0</sub> is accepted, it means that there is a significant (influential) relationship between the independent variable and the dependent variable. Determined by 5% of degrees of freedom (dk) = n - k - 1, to determine the table as the boundary for the acceptance and rejection of the hypothesis.

### Test of the coefficient of determination (R<sup>2</sup>)

The coefficient of determination R<sup>2</sup> in essence measures how far the model's ability to explain the dependent variables. The coefficient of determination is zero and one. The small value of R<sup>2</sup> means that the ability of the independent variables to explain the variation in the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict the variation in the dependent variable (Ghozali, 2016: 95).

## IV. RESULTS

### Description of Research Objects

The objects in this study were all data on inflation, the rupiah exchange rate, interest rates and income tax for the period 2015-2019. The data collection method used in this research is library research and documentation study. The data was collected by examining data on inflation, the rupiah exchange rate, and interest rates in the 2015-2019 period, the authors obtained data from [www.bps.go.id](http://www.bps.go.id), [bi.go.id](http://bi.go.id), and [Pajak.go.id](http://Pajak.go.id).

## ***Inflation Rate, Rupiah Exchange Rate and Interest Rate on Income Tax Receipts (PPh) at The Directorate General of Tax***

### **Descriptive Analysis of All Samples**

The following is the descriptive statistical test results of Inflation Rate, Rupiah Exchange Rate, Interest Rate and Income Tax Receipts are presented in the following table:

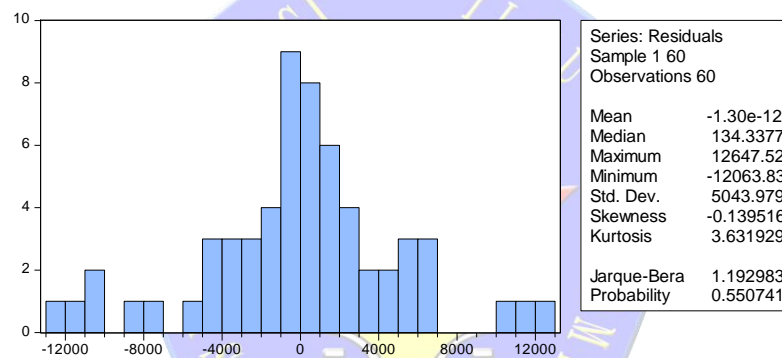
	PPh	TI	NTR	TSB
Mean	696.771.186.000.000	3,989833	13692,68	5,677167
Maximum	818.564.900.000.000	7,26	15178,87	7,75
Minimum	602.308.130.000.000	2,48	12579,1	4,25
Std. Dev.	86.630.602.072.657	1,372115	542,0219	1,146096
Observations	60	60	60	60

*Source: Results of data processing with Eviews version 10.0*

### **Classical Assumption**

#### **Test Normality Test**

The normality test results are used to test whether in the regression model, the residual variable has a normal distribution.



*Source: The results of data processing with Eviews version 10.0*

Looking at the histogram graph and the Jarque Bera statistical test (JB-Test) based on graph 4.1 the normality test can be seen that the probability value is 0.550741 where the probability value is greater than 0.05, namely  $0.550741 > 0.05$ , it can be concluded that the data is normally distributed.

#### **Heteroskedasticity Test**

Heteroskedasticity Test: Glejser

F-statistic	9.109562	Prob. F(3,56)	0.0001
Obs*R-squared	19.67775	Prob. Chi-Square(3)	<b>0.1302</b>
Scaled explained SS	24.25162	Prob. Chi-Square(3)	0.0000

Test Equation:

Dependent Variable: ARESID

Method: Least Squares

Date: 06/09/20 Time: 13:39

Sample: 1 60

Included observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21832.29	11726.58	-1.861778	0.0679
TINGKAT_INFLASI	206.0804	483.4714	0.426252	0.6716
NILAI_TUKAR_RUPIAH	1.168709	0.857325	1.363205	0.1783
TINGKAT_SUKU_BUNGA	1517.430	526.8606	2.880137	0.0656
R-squared	0.327963	Mean dependent var		3607.408
Adjusted R-squared	0.291961	S.D. dependent var		3493.962
S.E. of regression	2939.997	Akaike info criterion		18.87455
Sum squared resid	4.84E+08	Schwarz criterion		19.01417
Log likelihood	-562.2364	Hannan-Quinn criter.		18.92916
F-statistic	9.109562	Durbin-Watson stat		0.685023
Prob(F-statistic)	0.000053			

Source: The results of data processing with Eviews version 10.0

Based on the table above, it can be seen from the probability value that chi square has a value of 0.1302, namely  $p\text{-value} \geq 0.05$ , it can be concluded that there are no symptoms of heteroscedasticity.

### Multicollinearity Test

The multicollinearity test results were used to test whether the panel regression model found a correlation between the independent variables.

	INFLATION_RATE	RUPIAH_EXCHANGE_RATE	INTEREST_RATE
INFLATION_RATE	1	-0.4147210991206855	0.7138830813038368
RUPIAH_EXCHANGE_RATE	-0.4147210991206855	1	-0.02525173606992942
INTEREST_RATE	0.7138830813038368	-0.02525173606992942	1

Source: data processing by Eviews version 10.0

Based on the above table it can be seen that the independent variables consisting of Inflation, Exchange Rate and Interest Rate free from multicollinearity test because it has a correlation value below 0.80.

### Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	29.62548	Prob. F(2,54)	0.0000
Obs*R-squared	31.39097	Prob. Chi-Square(2)	<b>0.3107</b>

Test Equation:

Dependent Variable: RESID

Method: Least Squares

Date: 06/17/20 Time: 17:30

Sample: 1 60

Included observations: 60

Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION_RATE	299.3647	605.1644	0.494683	0.6228

***Inflation Rate, Rupiah Exchange Rate and Interest Rate on Income Tax Receipts (PPh) at The Directorate General of Tax***

RUPIAH_EXCHANGE_RATE	0.050969	1.063332	0.047933	0.9619
INTEREST_RATE	-222.6913	655.6007	-0.339675	0.7354
C	-576.3895	14542.66	-0.039634	0.9685
RESID(-1)	0.841317	0.133944	6.281112	0.2408
RESID(-2)	-0.167241	0.136648	-1.223882	0.2263
R-squared	0.523183	Mean dependent var	-1.30E-12	
Adjusted R-squared	0.479033	S.D. dependent var	5043.979	
S.E. of regression	3640.645	Akaike info criterion	19.33235	
Sum squared resid	7.16E+08	Schwarz criterion	19.54178	
Log likelihood	-573.9705	Hannan-Quinn criter.	19.41427	
F-statistic	11.85019	Durbin-Watson stat	1.806201	
Prob(F-statistic)	0.000000			

*Source: The results of data processing with Eviews version 10.0*

The test results using Breusch Godfrey show that the chi square probability value is 0.3107, which means that it is greater than 0.05, so there is no autocorrelation in this research.

**Hypothesis Test and Multiple Linear Regression**

The results obtained from the test of the coefficient of determination with an adjusted R2 value of 0.692321 or 69.23%, which means that all independent variables are able to explain the variation of the dependent variable by 69.23% while the remaining 30.77% (100% - 69.23%) is explained by the variable -Other independent variables that are not included in this research model. The following is the table of hypothesis testing results:

Dependent Variable: PAJAK\_PENGHASILAN  
 Method: Least Squares  
 Date: 06/09/20 Time: 13:40  
 Sample: 1 60  
 Included observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION_RATE	<b>-3109.414</b>	851.3911	<b>-3.652158</b>	<b>0.0006</b>
RUPIAH_EXCHANGE_RATE	<b>9.929477</b>	1.509745	<b>6.576921</b>	<b>0.0000</b>
INTEREST_RATE	<b>713.9152</b>	927.7993	<b>0.769472</b>	<b>0.4448</b>
C	<b>-69543.85</b>	20650.46	<b>-3.367665</b>	<b>0.0014</b>
R-squared	0.707966	Mean dependent var	58064.27	
<b>Adjusted R-squared</b>	<b>0.692321</b>	S.D. dependent var	9333.759	
S.E. of regression	5177.323	Akaike info criterion	20.00630	
Sum squared resid	1.50E+09	Schwarz criterion	20.14593	
Log likelihood	-596.1891	Hannan-Quinn criter.	20.06092	
<b>F-statistic</b>	<b>45.25283</b>	Durbin-Watson stat	0.474536	
<b>Prob(F-statistic)</b>	<b>0.000000</b>			

*Source: Results of data processing with Eviews version 10.0*

Based on the table of multiple linear regression analysis above, multiple linear regression equations can be formulated as follows:

$$\mathbf{P.PPh = -69543.85 - 3109.414 TI + 9.929477 NTR + 713.9152}$$



The results of the t test with the number of observations ( $n = 60$ ), the number of independent variables ( $k = 3$ ), then the degree of freedom ( $df = nk-1$ ) is  $60-3-1 = 56$  with a significance level of 0.05. t table is 2.003241. Then the following conclusions can be drawn:

1. The Inflation Rate has an effect on Income Tax (PPh) which shows the t value is greater than the t table ( $-3.652158 > 2.003241$ ) and the probability result is smaller than the significance level ( $0.0006 < 0.05$ ). It can be concluded that H1 which states that the Inflation Rate affects Income Tax (PPh) is accepted.
2. The Rupiah Exchange Rate has an effect on Income Tax (PPh), which shows that the t value is greater than the t table ( $6.576921 > 2.003241$ ) and the probability result is smaller than the significance level ( $0.0000 < 0.05$ ). it can be concluded that the Rupiah Exchange Rate has an effect on Income Tax, accepted.
3. Interest rates affect income tax (PPh), which shows the t value is smaller than t table ( $0.769472 < 2.003241$ ) and the probability result is greater than the significance level ( $0.4448 > 0.05$ ). it can be concluded that H3 which states that the Interest Rate has no effect on Income Tax (PPh), is rejected.

## **Discussion**

### ***The Inflation Rate on Income Tax Revenue***

The first hypothesis which says that the Inflation Rate affects Income Tax (PPh) is acceptable, it can be seen from the t value is greater than t table ( $-3.652158 > 2.003241$ ) and the probability result is smaller than the level. significance ( $0.0006 < 0.05$ ). The inflation rate coefficient is  $-3109,414$  which means that when there is an increase in the inflation rate by one unit, it will reduce the income tax (PPh) by the coefficient figure, namely  $-3109,414$ . Inflation rate affects income tax (PPh), this happens because inflation tends to increase the prices of goods and services in general and continuously. The inflation rate can affect income tax revenue because with inflation, people will reduce their level of spending due to the increasing price of goods and the decreasing value of the currency. Many companies or business entities are disrupted in marketing their products because the level of public spending has decreased which has an impact on decreasing income received which results in lower taxes paid to the state.

### ***Rupiah Exchange Rate on Income Tax Receipts***

The second hypothesis which says that the Rupiah Exchange Rate affects Income Tax is acceptable, it can be seen from the t value is greater than t table ( $6.576921 > 2.003241$ ) and the probability result is smaller than the significance level ( $0.0000 < 0.05$ ). The Rupiah Exchange Rate coefficient is positive at  $9,929477$ , which means that when the Rupiah Exchange Rate increases one unit, it will result in an increase in Income Tax by  $9,929477$ . The Rupiah Exchange Rate has an effect on Income Tax (PPh). This occurs because international trade encourages the exchange of two or more different currencies. A stable exchange rate condition will encourage the business world to carry out its activities calmly, especially for businesses that use foreign currencies in their transactions. Extreme exchange rate fluctuations can cause the company to lose money or even collapse and cannot continue its business activities. In calculating net income for tax purposes, the loss due to foreign exchange is an expense that can be deducted from gross income so that the greater the loss due to foreign exchange differences, the smaller the profit the company will get so that the Income Tax paid is also getting smaller.

### ***Interest Rates on Income Tax Receipts***

The third hypothesis which says that interest rates affect income tax is rejectable, it can be seen from the t value is smaller than t table ( $0.769472 < 2.003241$ ) and the probability result is greater than the significance level ( $0.4448 > 0.05$ ). The interest rate coefficient has a positive value of

713.9152, which means that when the interest rate increases by one unit, it will result in an increase in income tax of 713.9152. This means that the development of the Interest Rate has no effect on the Income Tax Received by the government. This is presumably because interest rates influence individual decisions on the choice to spend more money or save money in the form of savings.

## **V. CONCLUSIONS, RECOMMENDATIONS & LIMITATIONS**

### **Conclusions**

Based on the interpretation of the results of the research that has been done, the following conclusions can be drawn:

1. Inflation rate affects Income Tax Receipts (PPh). The coefficient of the Inflation Rate is negative, indicating that when the Inflation Rate has increased, it will cause the Income Tax (PPh) to decrease.
2. The Rupiah Exchange Rate has an effect on Income Tax Receipts (PPh). The Rupiah Exchange Rate coefficient is positive, indicating that when the Rupiah Exchange Rate increases, it will cause Income Tax Receipts (PPh) to also increase.
3. Interest Rates do not affect Income Tax Receipts (PPh). The interest rate coefficient is positive, indicating that when the interest rate increases, it will cause the income tax revenue (PPh) to increase.

### **Suggestions**

Based on the above conclusions, suggestions that can be taken related to the research results are as follows:

1. For the government, it is advisable to pay more attention to macroeconomic aspects such as inflation, Rupiah Exchange Rate, and Interest Rates, especially those that affect income tax revenues such as rates Inflation and the Rupiah Exchange Rate in order to achieve an increase in Income Tax Revenues in the country.
2. For entrepreneurs, in running a business, it is better if they pay more attention to fluctuating macroeconomic aspects such as inflation because the inflation rate greatly affects people's purchasing power. Entrepreneurs are also expected to be able to contribute tax revenue to their country.
3. For further researchers, they can add periods and other variables outside of this study or replace the dependent variable with other types of taxes, such as Value Added Tax, so that it can be specifically compared how macroeconomic variables affect certain types of taxes.

### **Limitations and Further Research Development**

This research has several limitations, including:

1. Researchers who are interested in studying the same problem should conduct research in a more recent period, namely up to 2020.
2. This research is limited to income tax revenues in Indonesia, for future researchers, is expected to make comparisons with other types of tax and tax revenue in other countries.
3. For researchers who want to continue this research, if they can add additional variables that are not yet in this study, such as moderating or intervening variables.
4. For other researchers, they can add other independent variables that are not in this research such as Economic Growth, and Gross Domestic Product, and Taxable Entrepreneurs. other dependent variables such as Value Added Tax.

## **VI. REFERENCE**

Akbar, A. (2020). *Terinfeksi Corona, Rupiah Anjlok ke Rp16.575 per Dolar AS*. Diunduh tanggal 23 Maret 2020, <http://www.cnnindonesia.com>.

- Ali, S. (2014). Inflation, Income Inequality and Economic Growth in Pakistan: A Cointegration Analysis. *International Journal of Economic Practices and Theories*, Vol. 4, No. 1.
- Badan Pusat Statistika. (2020). *Realisasi Pendapatan Negara (Milyar Rupiah) 2007-2020*. Diunduh tanggal 06 April 2020, <http://www.bps.go.id>.
- Bank Indonesia. (2020). *BI 7-Day Reserve Repo Rate Turun 25 bps Menjadi 4,50%: Menjaga Stabilitas, Memitigasi Risiko COVID-19*. Diunduh tanggal 29 Maret 2020, <http://www.bi.go.id>.
- Bank Indonesia. (2020). *Kurs Transaksi Bank Indonesia*. Diunduh tanggal 16 April 2020, <http://www.bi.go.id>.
- Bank Indonesia. (2020). *Laporan Inflasi: Indeks Harga Konsumen*. Diunduh tanggal 16 April 2020, <http://www.bi.go.id>.
- Bersiap Tameng Ekonomi Untuk Dampak Wabah Corona. (2020). Diunduh tanggal 29 Maret 2020, <http://www.jeo.kompas.com>.
- Boediono. (2014). *Ekonomi Internasional - Pengantar Ilmu Ekonomi No. 3*. Yogyakarta: BPFE-Yogyakarta.
- Bramasta, D. B. (2020). *Update Virus Corona di Seluruh Dunia: Tembus 152 Negara, 80.840 Sembuh, 7.905 Meninggal*. Diunduh tanggal 29 Maret 2020, <http://www.kompas.com>.
- Damayanti *et al.* (2019). Pengaruh Tingkat Inflasi, Economic Growth, dan Tarif Pajak Terhadap Penerimaan Pajak di Negara-Negara Asia (Studi pada World Bank Periode 2005-2014). *Jurnal Perpajakan (JEJAK)*. Vol. 9 No. 1.
- Darmawi, H. (2011). *Manajemen Perbankan*. Jakarta: Bumi Aksara.
- Dhaliwal *et al.* (2015). Historical Cost, Inflation, and The US Corporate Tax Burden. *Journal of Accounting and Public Policy*, 34(5), 467-489.
- Edeme *et al.* (2016). Alternative Specification and Estimation of Tax Revenue-Gross Domestic Product Relationship. *Asian Journal of Economic Modelling*.
- Ekananda, M. (2014). *Ekonomi Internasional*. Jakarta: Erlangga.
- Endarwati, O. (2018). *Insentif Pajak Jaga Pertumbuhan Ekonomi Pasca-Suku Bunga Naik*. Diunduh tanggal 16 April 2020, <http://www.economy.okezone.com>.
- Fahmi, I. (2012). *Analisis Kinerja Keuangan*. Bandung: Alfabeta.
- Ghozali, I. (2016). *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23 Edisi 8*. Semarang: Badan Penerbit Universitas Diponegoro.
- Handiani, S. (2014). Pengaruh Harga Emas Dunia, Harga Minyak Dunia dan Nilai Tukar Dolar Amerika/Rupiah Terhadap Indeks Harga Saham Gabungan Pada Periode 2008-2013. *E-Journal Graduate Unpar*, 1(1), 63-74.
- Harahap *et al.* (2018). Dampak Kebijakan dan Makroekonomi Terhadap Efektivitas Penerimaan Pajak di Bursa Efek Indonesia. *Jurnal Ilmiah Manajemen*, Volume 8, No. 2, 400-419.
- Ilyas, W. B. dan R. Burton. (2013). *Hukum Pajak*, Edisi 6. Jakarta: Salemba Empat.
- Karunia, A. M. (2020). *Lagi, BI Turunkan Suku Bunga Acuan*. Diakses tanggal 29 Maret 2020, <http://www.money.kompas.com>.
- Kasmir. (2011). *Dasar-dasar Perbankan*. Jakarta: Raja Grafindo.
- Kuncoro, M. (2013). *Metode Riset Untuk Bisnis dan Ekonomi*. Edisi 3. Jakarta: Erlangga.
- Kusnandar, V. B. (2019). *5 Tahun Jokowi: Nilai Rupiah Turun Hampir 18 Persen*. Diakses tanggal 16 April 2020, <http://www.databoks.katadata.co.id>.
- Mardiasmo. (2011). *Perpajakan, Edisi Revisi 2011*. Yogyakarta: Penerbit Andi Offset.
- Mardiasmo. (2016). *Perpajakan Edisi Revisi Tahun 2016*. Yogyakarta: Penerbit Andi Offset.
- Maulida, R. (2018). *Fiskal: Pengertian, Tujuan, Instrumen, dan Macam-Macam Kebijakan Fiskal*. Diakses tanggal 15 April 2020, <http://www.online-pajak.com>.
- Mispiyanti dan Kristanti. (2017). Analisis Pengaruh PDRB, Inflasi, Nilai Kurs, dan Tenaga Kerja Terhadap Penerimaan Pajak pada Kabupaten Cilacap, Banyumas, Purbalingga, Kebumen,



- dan Purworejo. *Prosiding Seminar Nasional dan Call For Paper Ekonomi dan Bisnis*, 219-233.
- Murni, A. (2013). *Ekonomika Makro*. Bandung: PT Refika Aditama.
- Natsir, M. (2014). *Ekonomi Moneter dan Perbankan Sentral*. Jakarta: Mitra Wacana Media.
- Nopirin. (2012). *Pengantar Ilmu Ekonomi Mikro Makro*. Yogyakarta: BPFE Yogyakarta.
- Pemerintah Indonesia. (2000). *Undang-Undang No. 17 Tahun 2000 Tentang Perubahan Ketiga Atas Undang-Undang No. 7 Tahun 1983 Tentang Pajak Penghasilan*. Jakarta: Sekretariat Negara.
- Pemerintah Indonesia. (2003). *Undang-Undang No. 17 Tahun 2003 Tentang Keuangan Negara*. Jakarta: Sekretariat Negara.
- Pemerintah Indonesia. (2007). *Undang-Undang No. 28 Tahun 2007 Tentang Ketentuan Umum Dan Tata Cara Perpajakan (KUP)*. Jakarta: Sekretariat Negara.
- Pemerintah Indonesia. (2009). *Undang-Undang No. 16 Tahun 2009 Tentang Penetapan Peraturan Pemerintah Pengganti Undang-Undang No. 5 Tahun 2008 Tentang Perubahan Keempat Atas Undang-Undang No. 6 Tahun 1983 Tentang Ketentuan Umum Dan Tata Cara Perpajakan Menjadi Undang-Undang*. Jakarta: Sekretariat Negara.
- Rahayu, S. K. (2010). *Perpajakan Indonesia: Konsep dan Aspek Formal*. Yogyakarta: Graha Ilmu.
- Renata *et al.* (2016). Pengaruh Inflasi, Nilai Tukar Rupiah dan Jumlah Pengusaha Kena Pajak Terhadap Penerimaan Pajak Pertambahan Nilai (Studi pada Kantor Wilayah DJP Jawa Timur I). *Jurnal Perpajakan (JEJAK)*, Vol. 9 No. 1.
- Resmi, S. (2011). *Perpajakan Teori dan Kasus. Edisi 6, Buku 2*. Jakarta: Salemba Empat.
- Resmi, S. (2014). *Perpajakan Teori dan Kasus. Edisi 8, Buku 1*. Jakarta: Salemba Empat.
- Rohmana, Y. (2010). *Ekonometrika Teori dan Aplikasi dengan Eviews*. Bandung: Laboratorium Pendidikan Ekonomi dan Koperasi.
- Sekaran, Uma dan Roger Bougie. (2017). *Metode Penelitian untuk Bisnis: Pendekatan Pengembangan-Keahlian, Edisi 6, Buku 1, Cetakan Kedua*. Jakarta: Salemba Empat.
- Sinaga, A. R. (2010). Pengaruh Variabel-Variabel Makro Ekonomi Terhadap Penerimaan Pajak di Indonesia. *Tesis Magister Perencanaan dan Kebijakan Publik Jakarta*.
- Suandy, E. (2011). *Perencanaan Pajak, Edisi 5*. Jakarta: Salemba Empat.
- Sugiyono. (2015). *Metode Penelitian Manajemen*. Bandung: Alfabeta.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif Kualitatif dan Kombinasi (Mixed Methods)*. Bandung: Alfabeta.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Sukardji, U. (2014). *Pajak Pertambahan Nilai (PPN). Edisi Revisi 2014*. Jakarta: PT Raja Grafindo Persada.
- Sukirno, S. (2011). *Makroekonomi Teori Pengantar. Edisi 3*. Jakarta: Raja Grafindo Persada.
- Sumarsan, T. (2017). *Perpajakan Indonesia: Pedoman Perpajakan Lengkap Berdasarkan Undang-Undang Terbaru (Edisi 5)*. Jakarta: PT Indeks.
- Sumidartini. (2017). Pengaruh Nilai Tukar Rupiah Serta Tingkat Suku Bunga Terhadap Penerimaan Pajak pada Direktorat Jenderal Pajak. *Volume 9, Nomor 01*.
- Sunariyah. (2011). *Pengantar Pengetahuan Pasar Modal (Edisi 6)*. Yogyakarta: UPP STIM YKPN.
- Suryadi. (2011). Model Hubungan Kausal Kesadaran, Pelayanan, Kepatuhan Wajib Pajak Dan Pengaruhnya Terhadap Kinerja Penerimaan Pajak. *Jurnal Keuangan Publik*, 4(1), 105- 121.
- Syairozi dan Fatah. (2017). Analisis Pajak dan Variabel Makroekonomi Terhadap Penerimaan Pajak Penghasilan. *Seminar Nasional Sistem Informasi (SENASIF)*, 1(1), 338-350.
- Waluyo. (2011). *Perpajakan Indonesia. Buku 1. Edisi 10*. Jakarta: Penerbit Salemba Empat.
- Waluyo. (2011). *Perpajakan Indonesia. Buku 2. Edisi 10*. Jakarta: Penerbit Salemba Empat.
- Wikipedia. (2018). *John Maynard Keynes*. Diakses tanggal 15 April 2020, <http://www.id.wikipedia.org>.
- Yüksel *et al.* (2013). Tax Revenue and Main Macroeconomic Indicators in Turkey. *Ejeps-6 (1)*.