Indonesia’s tax revenue: The effect of inflation rate and economic growth

Deni Hamdani
deni.hamdani@inaba.ac.id
Accounting Division, Business and Economic Faculty, Indonesia Membangun University, Bandung, Indonesia

Ridwan
ridwan@inaba.ac.id
Accounting Division, Business and Economic Faculty, Indonesia Membangun University, Bandung, Indonesia

Abstract
In order to ascertain and analyze the impact of Indonesia’s inflation rate and economic growth on tax collections, between 2012 and 2020, the Ministry of Finance's Directorate General of Taxes performed research. Data collection approaches were acquired through literature and documentation for this research, which is categorized as descriptive and verificative research with a quantitative approach. The sampling method employs non-probability sampling, which creates a saturated sample by taking samples from the entire population. Multiple linear regression analysis is used to analyze data, while the t-test and f-test are used to assess hypotheses. The results show that inflation rate has no significant positive effect on tax revenue. Besides, economic growth has no significant negative effect on tax revenue. It is hoped that government will pay attention for tax revenue every year.

Keywords: inflation rate; economic growth; tax revenue

Abstrak

Kata kunci: tingkat inflasi; pertumbuhan ekonomi; penerimaan pajak

DOI: http://dx.doi.org/10.33021/jaaf.v7i1.4142
INTRODUCTION

This research's initial stages of management theory (service administrator), which in this study views management as the government as stewards (service/trustee/budget manager) who will act with full awareness, wisdom and prudence for the benefit of the organization. Indonesia as a developing country is currently intensively carrying out development. The achievement of optimal development is strongly influenced by optimal tax revenues as well. Taxes, among which is value added tax, income tax, sales tax on upscale products, tax on land and buildings and acquiring the rights to land and buildings fee, are a source of government revenue in the domestic market or revenue originating from within the nation. Taxes, which include Value Added Tax (VAT), Income Tax, Sales Tax on Luxury Goods, Land and Building Tax, and Land and Building Rights Acquisition Fee, are a source of government revenue in the domestic market or revenue originating from within the nation (BPHTB).

As the primary source of funding for the State Revenue and Expenditure Budget and a strategic component supporting the independence of state financing, the state's position in the taxation sector is becoming more and more significant (APBN). More than 70% (percent) of all domestic revenues are being collected by the Directorate General of Taxes (DGT). (pajak.go.id, Accessed, 12/03/2021) (pajak.go.id).

The Directorate General of Taxes of the Ministry of Finance (Kemenkeu) failed to collect revenue according to the set target. The reason is the pressure from the global economic slowdown which has an impact on state revenues. Tax collections haven't met the goal since 2009, even based on the facts gathered. When the first administration of the sixth President Susilo Bambang Yudhoyono and Vice President Jusuf Kalla took office in 2008, tax revenue last met its goal. At that time, the state budget's tax income realization managed to surpass the objective by 106.7%, or Rp. 571 trillion from Rp. 535 trillion. A surplus of IDR 36 trillion was realized as a result. (cnbcindonesia.com, Accessed, 12/03/2021) (cnbcindonesia.com).

Figure 1. Target and realization of tax revenue in Indonesia 2009-2020 (in billions of rupiah)
From the picture above it can be seen that there has been a decline in successive tax revenue achievements from 2012 to 2016 and again in 2019. Even though achievements have grown in 2020, the Minister of Finance (Menkeu) Sri Mulyani Indrawati reported the realization of tax revenues throughout 2020 of Rp. 1,070 trillion still has not reached the target set at Rp. 1,198.82 trillion. In 2020, the global economic slowdown due to the ongoing trade war has an impact on the country, causing the realization of tax revenue to miss the set target. This phenomenon is also influenced by a number of variables, such as taxpayer compliance with tax obligations, which plays a strategic role in boosting tax receipts. (nasional.kontan.co.id, Accessed, 13/02/2021).

To boost the increase in state revenues through the tax sector, the inflation rate affects state revenues from non-oil and gas PPh, VAT, PBB and other taxes. The inflation rate can also affect economic transactions which are VAT objects. A continual rise in the cost of commodities in general, known as inflation, is brought on by a drop in the purchasing power of money over a specific time period (Mashudi et.al., 2017).

When there is inflation, the price of goods generally increases which will trigger a decrease in the demand for goods. This was followed by companies that reduced the supply of goods by reducing the amount of production. So that it will cause the company's total income to decrease and have an impact on tax revenues.

The next macroeconomic variable is economic growth which affects state income. Economic growth is the expansion of economic activities that, through time, increase both the quantity and quality of products and services generated in society as well as people's well-being (Untoro 2010). Gross Domestic Product (GDP) is a national indicator of economic growth, and Regional Gross Domestic Product (RGDP) is a regional indicator. Tax receipts from excise, value added tax (VAT), income tax (for people and businesses), and other taxes were impacted by increased economic activity.

The following is a table of phenomena on the development of tax revenues, inflation rates and economic growth in Indonesia:

<table>
<thead>
<tr>
<th>Year</th>
<th>Inflation rates</th>
<th>Economic growth</th>
<th>Tax revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>4.30%</td>
<td>6.23%</td>
<td>94.44%</td>
</tr>
<tr>
<td>2013</td>
<td>8.38%</td>
<td>5.56%</td>
<td>92.58%</td>
</tr>
<tr>
<td>2014</td>
<td>8.36%</td>
<td>5.01%</td>
<td>91.86%</td>
</tr>
<tr>
<td>2015</td>
<td>3.35%</td>
<td>4.88%</td>
<td>81.97%</td>
</tr>
<tr>
<td>2016</td>
<td>3.02%</td>
<td>5.03%</td>
<td>81.60%</td>
</tr>
<tr>
<td>2017</td>
<td>3.61%</td>
<td>5.07%</td>
<td>89.68%</td>
</tr>
<tr>
<td>2018</td>
<td>3.13%</td>
<td>5.17%</td>
<td>92.24%</td>
</tr>
<tr>
<td>2019</td>
<td>2.72%</td>
<td>5.02%</td>
<td>84.44%</td>
</tr>
<tr>
<td>2020</td>
<td>1.68%</td>
<td>-2.70%</td>
<td>89.25%</td>
</tr>
</tbody>
</table>

Despite a decline in tax receipts in 2019, the inflation rate fell by 0.41% from the previous year. Inflation is defined as "the tendency of prices to grow in general and continually" by Latumaerissa (2015). A rise in inflation without a corresponding rise in average income will lead to a decline in buying power.
Indonesia’s tax revenue

In 2020, the phenomenon of economic growth occurred, with a minus 7.09% decline in growth accompanied by an increase in tax revenues in the same year. This is contrary to Rahmany's theory (2012) Rahmany's theory in Antaranews (2012), which claimed that a slowdown in economic growth would result in a decrease in tax revenues.

The problem is a gap or difference between the actual reality and that set by the company. In order to ascertain and analyze the impact of Indonesia's inflation rate and economic growth on tax collections, between 2012 and 2020, the Ministry of Finance's Directorate General of Taxes performed research. The problem is a gap or difference between the actual reality and that set by the company.

LITERATURE REVIEW

Stewardship theory

Stewardship theory is part of agency theory, theory stewardship is often referred to as management theory (service administrator), which in this study views management as the government as stewards (service/trustee/budget manager) who will act with full awareness, wisdom and prudence for the benefit of the organization.

The stewardship hypothesis is based on the philosophical tenets that people are, at their core, trustworthy, capable of acting responsibly, and honest with one another. (Said, 2015).

Stewardship theory outlines a condition in which a manager is not driven by personal objectives but instead places a greater emphasis on organizational objectives' primary end goals. This notion, which holds that executives serve as stewards, has sociological and psychological roots. As stewards, executives are encouraged to carry out the wishes of the principals. Due to the steward's constant efforts to see the company's objectives accomplished, his or her behavior won't depart from the organization either.

The implications of stewardship theory for this research are that it can explain why government exists as an institution that can be trusted, accommodate people's aspirations, provide good service to the public, is capable of accepting financial accountability entrusted to it, and allocates the necessary financial resources and strategies to support good financial management in order to achieve economic goals and maximize people's welfare. According to stewardship theory, success and organizational satisfaction are closely related.

Tax revenue

State revenue is the greatest source of revenue in the State Revenue and Expenditure Budget, and its function in the taxation sector is becoming more critical and crucial for preserving the autonomy of state financing (APBN). Tax revenue is all state revenue made up of domestic tax revenue and international trade tax revenue, as defined by Article 1 Paragraph 3 of Law No. 14 of 2015 about the State Revenue and Expenditure Budget for the 2016 Fiscal Year. Rahayu (2017: 49) states that "taxes collected are organized into federal taxes, customs and excise, regional taxes, and levies" as the concept of tax revenue.

The Ministry of Finance's Directorate General of Taxes (DJP), which is tasked with safeguarding state tax revenues, is expected to consistently be able to reach revenue targets for taxes that are rising year after year despite the difficulties of societal changes in social and economic life. The tax revenue referred to in this study is Indonesian tax revenue from 2012-2020. The realized tax revenue from the established tax revenue target serves as the indicator in tax revenue.

\[
\text{Tax revenue} = \frac{\text{Realized tax revenue}}{\text{Predetermined tax revenue}} \times 100\%
\]

DOI: http://dx.doi.org/10.33021/jaaf.v7i1.4142
**Inflation rate**

Inflation is one of the problems that can disrupt the country's economy, including Indonesia. Inflation has several impacts such as a decrease in people's purchasing power so that it affects tax revenue, one of which is. Therefore, Bank of Indonesia (BI) as the central bank plays a very important role in maintaining the stability of numbers in the trade balance and avoiding deflation so that a country's economy can run in an orderly manner.

Inflation is an increase in commodity prices generally brought on by a program of the commodity procurement system (production, pricing, money printing, etc.) that runs out of step with the average person's income level. 2015 (Putong). The Consumer Price Index, according to Bank Indonesia, is the statistic that is frequently used to calculate the inflation rate (CPI). The CPI fluctuates from time to time, reflecting changes in the cost of the public's packaged products and services. Then, on a monthly basis in numerous locations, in both conventional and modern markets for a variety of commodities and services, the Central Statistics Agency (BPS) will track the evolution of prices for these goods and services. Based on each price level of several types of basic products traded in the market, the inflation rate can be estimated. These prices can be combined into a calculation, the Consumer Price Index, which is typically calculated every three months and once a year, to calculate inflation. The formula for calculating inflation:

\[
\text{Inflation} = \frac{\text{IHK}_n - \text{IHK}_o}{\text{IHK}_o} \times 100\%
\]

Where:
- \(\text{IHK}_n\) = Base year consumer price index (in this case the value is 100)
- \(\text{IHK}_o\) = The previous year's consumer price index

**Economic growth**

If all real compensation for the use of production factors is higher in one year than the next, it is said that the economy is growing. To put it another way, the economy is said to be growing if real personal income in one year is higher than real personal income in the previous year.

Economic elements and non-economic factors both have an impact on the process of economic growth. The primary elements affecting economic growth are economic factors, which are simply factors of production. Changes in the factors of production are what cause the oscillations in the pace of economic growth.

According to economists, there are a number of ideas on government economic growth, including: (1) Sollow Swan Theory, which states that technology advancement and population growth are the two main determinants of economic growth; (2) The Harrod-Domar Hypothesis. The study of national economic activity and labor difficulties that Keynes provided is expanded upon by the Harrod-Domar theory. This theory aims to outline the circumstances necessary for the economy to expand and improve gradually (steady growth), Schumpeter Theory (3) According to Schumpeter, the innovation process carried out by innovators or entrepreneurs (Sukirno, 2015) is the primary cause of a country's economic progress.

The following is the formula for calculating a country's economic growth:

\[
Y = \frac{PDB_t - PDB_{t-1}}{PDB_{t-1}} \times 100\%
\]

Where:
- \(Y\) = Economic Growth Rate
Indonesia’s tax revenue

PDBt = Product Domestic Bruto (ADHK, Atas dasar harga konstan), this Year
PDB_{t-1} = Product Domestic Bruto (ADHK, Atas dasar harga konstan), previously

While GDP at constant prices is used to gauge economic development from year to year, GDP at current prices can be used to observe changes and the structure of the economy. Economic growth thus gauges how well an economy has developed from one era to the next.

Framework

Relationship between inflation rate and tax revenue

A representation of the increase in prices from one year to the next is the inflation rate. The propensity for prices to increase consistently and generally is known as inflation. It is important to keep in mind that price rises that are seasonal, occur before significant holidays or only once, do not have a lasting impact, are not considered inflation, and do not meet the need for a continuous rising trend.

According to Renata et al (2016), inflation has a favorable impact on tax receipts, including the value added tax (VAT). According to Sinambela and Rachmawati's research (2019), inflation has little to no impact on the amount of value added tax collected.

Relationship between economic growth and tax revenue

The tax revenues of a nation are influenced by its economic situation. The gross domestic product (GDP) is the appropriate metric to assess a nation's economic health. Therefore, it is hoped that tax income will increase with per capita GDP. According to Sitinjak's (2016) research, economic expansion has a favorable impact on tax collections. This is corroborated by Sarjono, Anwar, and Darmansyah's (2018) research findings, which show that local tax collections are significantly impacted by economic growth. According to Anggraeni's (2016) research, economic growth has no impact on value added tax receipts.

The author defines a framework from this research as follows:

```
Inflation rate

Economic growth

Tax revenue
```

**Figure 2. Research framework**

Research hypothesis

According to the research being examined, the authors propose a theory that includes, the rate of inflation and tax receipts are influenced by one another, there is an influence between Economic growth on tax revenues and the last hypothesis is tax revenue is impacted by both the inflation rate and economic growth at the same time.

H$_1$: Inflation rate has impact on tax revenues.
H$_2$: Economic growth has impact on tax revenues.

DOI: http://dx.doi.org/10.33021/jaaf.v7i1.4142
RESEARCH METHOD

Place and time of research
Utilizing secondary data, this study was carried out at the Ministry of Finance Directorate General of Taxes. The Central Bureau of National Statistics and the Directorate General of Taxes Performance Report for the period 2012–2020 served as the source of the information. From February through September 2022, data were gathered.

Population and sample
The population as a whole serve as the research topic. A population researcher is someone who wants to look at every aspect of the research topic. All Performance Reports from the Directorate General of Taxes for the years 2012 to 2020 were the population used in this analysis.

Method of collecting data
In this study the authors use the method: Library Research, is library research that aims to find and collect what is needed from the literature, lecture materials, and with the help of various materials in the library related to the research title. Then in-field analysis, where the authors collected information about the issue at hand from papers held by the Directorate General of Taxes, then recorded that information. For performance report information, visit https://www.pajak.go.id and https://www.bps.go.id. Accessed 21/03/2021.

Descriptive analysis method
Descriptive analysis method is an analytical method used by collecting data, classifying or compiling data, determining and interpreting the data obtained by the author so that it can provide an overview of the problems faced by the company.

Verificative analysis method
The verification method is employed to ascertain the existence of a relationship between variables and to test the relationship hypothesis. The verification analysis in this study is to determine the strength of the relationship between the dependent variable (Y), which is tax revenue, and the independent variables (X), which are inflation rate (X₁) and economic growth (X₂).

Multiple linear regression test
In order to solve the issue of regression analysis including the association of two or more independent variables, multiple linear regression analysis is used. Following data analysis, the following equation represents a multiple linear regression model:

\[ Y_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + \varepsilon_i \]

Where:

- \( Y \) : Tax revenue
- \( \alpha \) : Constant
- \( \beta \) : Regression coefficient
- \( X_{1} \) : Inflation rates
- \( X_{2} \) : Economic growth
- \( \varepsilon \) : Residual

Pearson correlation coefficient test
Correlation is included in multivariate analysis, because it involves the relationship between two or more variables, with these variables being analyzed together. The purpose of Pearson
correlation analysis is to test whether there is a significant relationship between the two variables, and if there is a relationship, what is the direction of the relationship and how big/strong the relationship is. Correlation analysis is often combined with regression analysis, both are closely related but have different purposes.

The definition of the product moment correlation is: "If the data for the two variables are in the form of intervals or ratios or the source of the excess data is the same, this correlation approach is used to uncover relationships and show the hypothetical relationship between the two variables.” (Sugiyono, 2018)

The product moment correlation formula is:

\[ r_{xy} = \frac{n\sum XY - (\sum X \times \Sigma Y)}{\sqrt{n\sum X^2 - (\sum X)^2} \sqrt{n\sum Y^2 - (\Sigma Y)^2}} \]

Where:
- \( r_{xy} \): Correlation between dependen and independent variable
- \( X \): Variable X
- \( Y \): Variable Y
- \( n \): Total sample/period to research

**Determination coefficient test**

By calculating the size of the coefficient of determination, statistical techniques can be used to determine the impact of variable variation. The correlation coefficient is squared, multiplied by 100%, and the result is the coefficient of determination. The determinant, or coefficient of determination, is represented as a percentage. Thus, the determination coefficient formula is:

\[ Dc = r^2 \times 100\% \]

Where:
- \( Dc \): Determination coefficient
- \( r^2 \): Corelation coefficient

**Hyphotesis testing**

**Partial test (t-test)**

The purpose of the t test is to determine how much the dependent variable's influence on the independent variable is partial. The test is run with a 0.05 (or 5%) significance level. The following factors are used to determine whether the hypothesis should be accepted or rejected:

- The hypothesis is rejected if the significant value is less than or equal to 0.05. (The regression coefficient is not significant). This indicates that the independent variable has a negligible impact on the dependent variable.
- The hypothesis is accepted (significant regression coefficient) if the significant value is less than 0.05, indicating that the independent variable has an impact on the dependent variable.

**Simultaneous test (F-test)**

A simultaneous test of the regression coefficients is the F test. This test was performed to ascertain the simultaneous (simultaneous) impact of all independent variables present in the model on the dependent variable.

To test these two hypotheses, the F statistical test is used:

- We accept the alternative hypothesis, which asserts that all the independent factors affect the dependent variable concurrently, if the value of F is greater than 4, which can be done
with a 5% confidence level.
• contrasting the estimated F value with the table-based F value. Ho is refused if f count is more than f table, while Ha is accepted.

RESULTS AND DISCUSSION

Descriptive analysis

Table 2. Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax revenue</td>
<td>9</td>
<td>.82</td>
<td>.94</td>
<td>.8867</td>
<td>.04770</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>9</td>
<td>.02</td>
<td>.08</td>
<td>.0428</td>
<td>.02421</td>
</tr>
<tr>
<td>Economic growth</td>
<td>9</td>
<td>-.02</td>
<td>.06</td>
<td>.0444</td>
<td>.02455</td>
</tr>
</tbody>
</table>

The table above indicates that the 2012–2020 tax revenue realization fell short of the 100% goal. The best achievement, totaling Rp. 835.83 billion from the aim of Rp. 885.03 billion, occurred in 2012, representing a 94.44% success rate. While 2016 had the lowest success rate (81.61%), realizing only Rp. 1,105.97 trillion of the intended Rp. 1355.20 trillion. In contrast, from 2012 to 2020, the average tax revenue was 88.67%. Besides, the inflation rate is expected to decline between 2012 and 2020. The government's aim in the 2013 Revised State Budget assumption of 7.2% was greatly exceeded by the greatest inflation in 2013, which was 8.38%. The Covid-19 pandemic's impact on domestic demand, which was not yet strong, appropriate supply, and policy coordination between Bank Indonesia and the Government at the national and regional levels in preserving price stability led to 2020's lowest achievement, which was 1.68%. The average rate of inflation between 2012 and 2020 was 4.28%. And the economic growth has experienced a downward trend. In spite of being below the government's aim of 6.3%, 2012 saw the highest value from 2012 to 2020 at 6.23%. 2020 saw Indonesia's economy expand at a negative rate of -2.07 percent, which was the worst rate since the 1998 financial crisis, when it shrank by minus 13.16%. In the meantime, Indonesia's economy expanded on average by 4.28%.

Normality test

Table 3. Normality test (Kolmogorov-Smirnov)

<table>
<thead>
<tr>
<th>Normal Parameters</th>
<th>Mean</th>
<th>.0000000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Std. deviation</td>
<td></td>
<td>.03357730</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute</td>
<td>.205</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>.137</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>-.205</td>
</tr>
<tr>
<td>Test Statistic</td>
<td>.205</td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.200</td>
<td></td>
</tr>
</tbody>
</table>

DOI: http://dx.doi.org/10.33021/jaaf.v7i1.4142
The data can be inferred to have been regularly distributed since the results of the Kolmogorov-Smirnov normality test show that the significant value produced is above 0.05 or 0.2 > 0.05.

**Multicollinearity test**

<table>
<thead>
<tr>
<th></th>
<th>Beta</th>
<th>Std. error</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.191</td>
<td>.287</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Rate</td>
<td>.980</td>
<td>.886</td>
<td>.726</td>
<td>1.377</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>-1.099</td>
<td>1.123</td>
<td>.371</td>
<td>2.697</td>
</tr>
</tbody>
</table>

It may be inferred from the table above that there is no multicollinearity issue, where the variable inflation rates (X₁), the variance influence factor value (VIF) is 1.377 smaller than 10 dan tolerance 0.726 and for the variable economic growth (X²), the variance influence factor value (VIF) of 2,697 smaller than 10 and the tolerance is 0,371.

**Heteroscedasticity test**

A scatterplot graph between the predicted value of the dependent variable (ZPRED) and its residual is displayed to test for heteroscedasticity in the regression model by comparing the variance of the residuals of one observation to the other (SRESID).

![Figure 3. Heteroscedasticity test graph](Image)

The dots in the image above are scattered out randomly, not forming a pattern. Additionally, there are spots on the Y axis that are dispersed above and below zero. Given that the regression model does not contain any heteroscedasticity, further study of the regression model is appropriate.

**Autocorrelation test**

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std. error of the estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>( R )</td>
<td>.710*</td>
<td>.504</td>
<td>.009</td>
<td>.04749</td>
<td>2.865</td>
</tr>
</tbody>
</table>

DOI: http://dx.doi.org/10.33021/jaaf.v7i1.4142
As noted in the table above, the Durbin-Watson value produced by the regression model is 2.865, which is higher than the upper limit (\(d_u\)) which is 2.5881 and less than 4-\(d_u\) which is 1.4119. There is therefore no evidence of either positive or negative autocorrelation, because the Durbin-Watson value is between \(d_u < d \leq 4 - d_u\) or 2.5881 < 2.865 ≤ 4 – 2.5881

**Multiple linear regression test:**

**Table 6. Multiple linear regression test**

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.191</td>
<td>.287</td>
<td></td>
<td>4.155</td>
<td>.014</td>
</tr>
<tr>
<td>Inflation rates</td>
<td>.980</td>
<td>.886</td>
<td>.457</td>
<td>1.106</td>
<td>.331</td>
</tr>
<tr>
<td>Economic growth</td>
<td>-1.099</td>
<td>1.123</td>
<td>-.566</td>
<td>-.979</td>
<td>.383</td>
</tr>
</tbody>
</table>

The output above indicates that the regression coefficients and constant values can be calculated to create the following multiple linear regression equation:

\[
Y = 1.191 - 0.980 X_1 - 1.099 X_2 + e
\]

From this equation, it can be interpreted that as \(a = 1.191\), it means that if the variable inflation rate (\(X_1\)), rupiah exchange rate (\(X_2\)), and economic growth (\(X_4\)) are zero (0), then the value of the tax revenue variable (\(Y\)) is 1,191. As for \(b_1 = 0.980\), it means that each addition of one unit of the inflation rate variable (\(X_1\)) and other variables is constant, it will increase the value of the tax revenue variable (\(Y\)) by 0.980. On the other hand, for every one unit decrease in the Inflation Rate variable (\(X_1\)) and other variables is constant, it will reduce the value of the tax revenue variable (\(Y\)) by 1,099. On the other hand, for every one unit decrease in the Economic Growth variable (\(X_2\)) and other variables being constant, the tax revenue variable (\(Y\)) will increase by 1,099.

**Coefficient determination result**

**Table 7. Coefficient of determination**

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.710(^a)</td>
<td>.504</td>
<td>.009</td>
<td>.04749</td>
</tr>
</tbody>
</table>

Inflation rate (\(X_1\)) and economic growth (\(X_{42}\)) thus create a simultaneous link (combined), yielding a coefficient of determination of 50.40\% of tax revenue (\(Y\)). While the remaining 49.60\% is influenced by additional elements, such as service, taxation system circumstances, and other macroeconomics, they are not taken into account in this study. Based on the test results above, it can be seen that:

\[
D_c = R^2 \times 100\%
\]

\[
= (0.710)^2 \times 100\%
\]

\[
= 50.40\%
\]

DOI: http://dx.doi.org/10.33021/jaaf.v7i1.4142
Hyphotesis testing

**Partial test (t-test)**

Table 8. Partial test

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.191</td>
<td>.287</td>
<td></td>
<td>4.155</td>
<td>.014</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>.980</td>
<td>.886</td>
<td>.457</td>
<td>1.106</td>
<td>.331</td>
</tr>
<tr>
<td>Economic growth</td>
<td>-1.099</td>
<td>1.123</td>
<td>- .566</td>
<td>-.979</td>
<td>.383</td>
</tr>
</tbody>
</table>

A significant level (α) of 5% and degrees of freedom (v) = 8 (n - 1) obtained a ttable value of 1.85955 with a sig value of 0.331> 0.05. The t-test value for the inflation rate (X1) is 1.106 and the table is 1.85955. Because the value of tcount < ttable, then H0 is accepted and H2 is rejected, meaning that the inflation rate (X1) has no significant positive effect on tax revenue (Y). T-count value for economic growth (X2) is -0.979 and t-table 1.85955. Because the value of t-count < t-table, then H0 is accepted and H4 is rejected, meaning that economic growth (X2) has no significant negative effect on tax revenue (Y).

**Simultaneous test**

Table 9. Simultaneous test

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.009</td>
<td>4</td>
<td>.002</td>
<td>1.018</td>
<td>.493</td>
</tr>
<tr>
<td>Residual</td>
<td>.009</td>
<td>4</td>
<td>.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.018</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is known from the output above that the Fcount is 1.018 and the p-value (sig) is 0.493. We obtain Ftable 6.39 by setting = 5% and the degrees of freedom V1 = 4 (n-k-1) and V2 = 4. H0 is approved and H3 is refused because Fcount Ftable (1.018 6.39), indicating that the inflation rate (X1) and economic growth (X2) variables do not simultaneously affect tax revenue (Y).

**CONCLUSION**

To conclude, it is found that inflation rate has no significant negative effect on tax revenue. Besides, economic growth also has no significant positive effect on tax revenue. It is due to the fact that the government policy on tax collection is efficient. Besides, based on the data we explain, the realization is high as well (81% to 94% see Table 1), yet it does not reach the expected value. Unfortunately, economic growth is expected to have positive impact on tax revenue, but due to some policies like tax amnesty, tax holiday, and other tax incentive, growth is unable to lift up the tax revenue. Thus, inflation rate for the period of further study is needed to use more tax years because the more data that are used, the more representative the results will be and increase the number of independent factors that can impact the growth in tax revenues, such as tax services, inspection, and collection, as well as tax laws.
REFERENCES


Undang-Undang no 14 tahun 2015 tentang anggaran pendapatan dan belanja negara tahun anggaran 2016.

DOI: http://dx.doi.org/10.33021/jaaf.v7i1.4142