

# Factors that Influence Tax Revenue and Government Expenditure in the Asia Pacific Region

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**Abstract**—This research aims to determine how the effect of economic growth, inflation, tax rate and good government governance on tax revenue and government expenditure on countries in the Asia Pacific region. The method of research analysis used is descriptive and verification analysis method of quantitative approach. The population of this research are countries in the Asia Pacific region, while for sampling using purposive sampling method. The data used are secondary data collected from website World Bank, Asia Development Bank, International Monetary Fund from 2014-2016. This research data using statistical test of panel data regression with model of random effect model and fixed effect model. The results of the research show that tax rates and good government governance affect tax revenue. While economic growth and inflation have no effect on tax revenue. As well as inflation, tax rates, good government governance and tax revenue affect government expenditure. While economic growth has no effect on government expenditure.

**Keywords**—*economic growth; good government governance; government expenditure; inflation; tax rate; tax revenue*

## I. INTRODUCTION

In 2016, the world economy was faced with problems that is decreased economic growth, low commodity prices, and still high uncertainty in financial markets. Decreased economic growth was seen in 2015 at 3.4%, in 2016 decreased to 3.1%. The global economy is driven by developing Asian countries, because it is supported by higher demand, improvement in global commodity prices, and domestic reform. The Asian Development Bank (ADB), this has made Asian countries the biggest growth contributors to global growth. Asia Development Outlook (ADO) is an annual economic publication published by ADB, which states that Asian countries are the biggest contributors to growth in global growth by 60%. Although in 2017 and 2018 it is estimated that gross domestic product growth in Asia Pacific will reach 5.7%, down from 2016 at 5.8% (adb.org, 6/4/2017).

Developing countries in the Asia Pacific region are intensely implementing development. The achievement of optimal development is influenced by state revenues or revenues. Revenue or state income is tax revenue. The main source of tax revenue is the contribution of a country's society. Tax revenue is a potential source of revenue, and has an

important role in financing or government expenditure [1]. Tax revenue is used to finance government expenditure, such as financing government administration, building and improving infrastructure, providing facilities and others [2]. There are several factors that can affect tax revenue and government expenditure.

Factors affecting tax revenue and government spending, one of which is economic growth. The government has an important role in the economy of a country [3]. The government enters the economy, through policies taken and implemented [4]. Similarly, Harjanto suggests that economic growth affects government expenditure, because government expenditure is used as a balancing tool or policy to respond to or even the economic cycle that occurs [5].

Inflation is also a factor that influences tax revenue and government expenditure. The inflation rate can be maintained stably and will certainly have a good impact on economic activity in a country. A stable inflation rate will have an impact on the economy, and the impact is related to public consumption, sector that benefits in this case is the tax sector [6]. One of the determinants of tax revenue is the tax rate. If the tax rate is high, then the taxpayer will be reluctant to report all taxable income. Even low tax rates will hinder tax revenues and have an impact on government expenditure [7].

The government-determined policies need to pay attention to various factors, one of which is internal factors, namely good government governance. The quality of a country's government governance is an important factor for determining policy [8]. Government performance would be better if the principles of good government governance were applied to government agencies [9,10]. Bird & Zolt states that the tax structure is very responsive to good governance structures, high-income countries can improve their tax performance through improved governance structures [11].

### A. Effect of Economic Growth on Tax Revenues

Economic growth is very clear in its contribution to tax revenues [12,13]. When a conducive economic condition will trigger economic performance, business actors and increase the level of public consumption, so tax revenues will increase. In line with the research conducted by Oktiya Damayanti et al. [7] and Stoilova [14] which states that economic growth affects tax

revenues. Because economic growth is interpreted as an increase in per capita income, and is able to encourage increased income in the tax sector. The hypothesis is:

H1: economic growth affects tax revenue.

#### *B. Effect of Inflation on Tax Revenue*

Rosyidi explains that when there is an increase or decrease in price, the amount of goods that will be purchased by the community will experience a change, which affects tax revenue [15]. This is in line with research conducted by Poterba, Rotemberg, and Feb [16] and Oktiya Damayanti et al. [7] which states that inflation has a significant effect on tax revenue. The hypothesis is:

H1: Inflation affects tax revenue.

#### *C. Effect of Tax Rates on Tax Revenues*

There are two factors that influence tax revenue is external factors and internal factors. Tax rates are internal factors that affect tax revenue. Tax rates have a role as a source of revenue or state revenue and as a tool to regulate [17]. The tax rate has a negative and significant correlation to tax revenue [7]. The hypothesis is:

H1: Tax rates affect tax revenue.

#### *D. Effect of Good Government Governance on Tax Revenue*

Tax revenue is a fiscal policy, in determining fiscal policy, it is necessary to pay attention to various factors, one of which is internal factors such as good government governance [18]. Good government governance influences tax revenue [8,19]. The hypothesis is:

H1: Good government governance affects tax revenue.

#### *E. Effect of Economic Growth on Government Expenditure*

The economy of a country if per capita income increases then government expenditure is relatively increasing. Because the government must regulate relationships that arise in society, law, education, recreation, culture and so on [20]. Economic growth negative effect on government expenditure [21,22]. The hypothesis is:

H1: Economic growth affects government expenditure.

#### *F. Effect of Inflation on Government Expenditure*

The government needs to spend money or resources to ensure a country's economic stability, stimulate or increase productivity or investment through public spending or government expenditure. The government regulates income from the tax sector to be distributed, but the increase in government expenditure in the form of investment can result in high inflation given the assumption of full employment [23]. That inflation has an influence on government expenditure [23,24]. The hypothesis is:

H1: Inflation affect government expenditure.

#### *G. Effect of Good Government Governance on Government Expenditure*

Poor governance affects public finances, such as erosion of tax revenues through effective tax collection and tax evasion. And an increase in government expenditure related to the increasingly long bureaucracy, the composition of inefficient public spending and the high cost of public investment [25]. Good governance has a positive effect on government expenditure [26,27]. The hypothesis is:

H1: Good government governance affects government expenditure.

#### *H. Effect of Tax Revenue on Government Expenditure*

Predicted tax revenue is one of the factors determining the amount of government expenditure. The more tax revenue received, the more government expenditure will be carried out [2]. If tax revenue has a positive effect on government expenditure, tax revenue reduction will reduce government expenditure [28-31]. The hypothesis is:

H1: Tax revenues affect government expenditure.

The purpose of this study is to find out how the influence of economic growth on tax revenues, inflation on tax revenues, tax rates on tax revenues, good government governance on tax revenues. And to find out how the influence of economic growth on government expenditure, inflation on government expenditure, tax rates on government expenditure, good government governance on government expenditure, tax revenues on government expenditure in countries in Asia Pacific in 2014 to 2016.

## II. METHODS

This research is a descriptive and verification research with a quantitative approach. The population used in this study are countries in the Asia Pacific region. At present, the number of countries in the Asia Pacific region is 45 countries. The sampling technique used was purposive sampling. Based on this technique, the consideration is only to choose countries in the Asia Pacific region from the beginning to the end of the research period from 2014 to 2016, and countries that publish the data needed in 2014 to 2016. Obtained as many samples 38 countries. The independent variables of this study are economic growth, inflation, tax rates, and good government governance. While the dependent variable is tax revenue and government expenditure. This study uses influence analysis (regression) as a test tool for hypotheses. In this study hypothesis testing using panel data regression test.

## III. RESULTS AND DISCUSSIONS

### *A. Tax Revenue*

Based on the results of the Hausman test and the Lagrange multiplier test, hypothesis testing uses a random effect model on the hypothesis of how economic growth, inflation, tax rates and good government governance influence tax revenues in countries in Asia Pacific in 2014-2016. The following is the result of the random effect model calculation:

**TABLE I. THE REASULT OF RANDOM EFFECT TEST: TAX REVENUE**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.016	2.772	5.7777	0.0000
PE	0.0613	0.2129	0.2878	0.7740
INF	-0.0933	0.1822	-0.5123	0.6095
TP	-0.1348	0.0615	-2.1906	0.0306
GGG	20.793	8.9349	2.3272	0.0218

Source: Output Eviews

The results show that the coefficient of economic growth is  $0.0613 \neq 0$ , with a probability value of 0.7740. This shows that economic growth does not affect tax revenue. The results of this study support the research conducted by Richard & Arianto [1] which states that economic growth does not affect tax revenue. This is because economic growth explains the overall increase in gross domestic product, but does not always reflect the well-being of the population with equal per capita income.

The results showed that the inflation coefficient value is  $-0.0933 \neq 0$ , with a probability value of 0.6095. This shows that inflation does not affect tax revenue. The results of this study support research conducted by Richard & Arianto [1] which states that inflation does not affect tax revenue. This is because the impact of inflation causes the price of goods to rise and causes a decline in people's purchasing power. People who have fixed income cannot adjust their income by rising prices. However, this does not affect tax revenues, especially income tax, where income tax has a large contribution to tax revenue.

The results showed that the coefficient value of the tax rate is  $-0.1348 \neq 0$ , with a probability value of 0.0306. This shows that the tax rate affects tax revenue. The results of this study support the research conducted by Oktiya Damayanti et al. [7], which states that tax rates affect tax revenues. This is because high tax rates make people tend to report less taxable income and will have an impact on a country's tax revenue reduction.

The results showed that the coefficient value of good government governance is  $20,793 \neq 0$ , with a probability value of 0.0218. This shows that good government governance affects tax revenue. Good government governance or government governance affects tax revenue [8,19]. This is because good governance has a good tax system, the government has a relationship with the taxation system, collecting tax revenues depends on the efficient government.

### B. Government Expenditure

Based on the chow test and thirst test, hypothesis testing uses a fixed effect model to hypothesize how the influence of economic growth, inflation, tax rates, good government governance and tax revenue on government expenditure in countries in Asia Pacific in 2014-2016.

**TABLE II. THE REASULTS OF FIXED EFFECT TEST: GORVERNMENT EXPENDITURE**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	67.891	4.770	14.231	0.0000
PE	0.035	0.080	0.4445	0.6580
INF	-0.209	0.028	-7.362	0.0000
TP	-0.290	0.087	-3.332	0.0014
GGG	-68.618	12.005	-5.715	0.0000
PenPajak	-0.469	0.053	-8.741	0.0000

Source: Output Eviews

The results showed that the coefficient of economic growth is  $0.035 \neq 0$ , with a probability value of 0.6580. This shows that economic growth has no effect on government expenditure. This research is in line with research conducted by Dudzevičiūtė et al. that economic growth does not affect government expenditure [31].

The results of this study indicate that the inflation coefficient value is  $-0.209 \neq 0$ , with a probability value of 0.0000. The results of this study indicate that inflation affects government expenditure. Inflation affects government expenditure, this is because inflation significantly influences public spending decisions, where a reduction in public spending tends to reduce inflation [32].

The results of this study indicate that the coefficient value of the tax rate is  $-0.290$ , with a probability value of 0.0014. This shows that the tax rate affects government expenditure. This study also supports research conducted by Lojanica [33] which states that tax rates affect tax expenditure. When government expenditure increases, tax revenues also increase, which means that the tax rate increases.

The results of this study indicate that the value of good government governance coefficient is  $-68,618$ , with a probability value of 0.0000. This shows that good government governance affects government expenditure. The results of this study are in line with research conducted by Rajkumar and Swaroop [26] and Sang and Kwang [27] which state that good government governance affects government expenditure. It is explained that public spending on health can reduce child mortality more in countries with good government.

The results of this study indicate that the tax revenue coefficient is  $-0.469$ , with a probability value of 0.0000. This shows that tax revenues affect government expenditure. Tax revenue affects government expenditure [28-31,34]. It is explained that as far as the dynamics of the budget is concerned, the policies used to reduce or eliminate the budget deficit by raising taxes, cutting spending and even cutting taxes.

## IV. CONCLUSIONS

Based on the theory, the results of research and discussion on this research, it can be concluded that in the countries in Asia Pacific in 2014-2016 as follows: 1) Economic growth does not affect tax revenue. 2) Inflation does not affect tax revenue. 3) Tax rates affect tax revenue. 4) Good government governance affects tax revenue. 5) Economic growth does not affect government expenditure. 6) Inflation affects government expenditure. 7) Tax rates affect government expenditure. 8)

Good government governance affects government expenditure.  
9) Tax revenues affect government expenditure.

#### V. SUGGESTIONS

After testing, obtaining the results of the study, and drawing conclusions from the effects of economic growth, inflation, tax rates and good government governance on tax revenues and government expenditure, the authors put forward several suggestions, including for the government to pay attention to tax rates so as not to increase, because if an increase in taxpayer tax rates tends to be non-compliant and avoids paying taxes. The government needs to give the taxpayers that the government collects taxes to provide community services. As well as good government governance factors affect the level of tax revenue and government expenditure of a country. The ability of a country to collect revenue and carry out spending depends on how well the government institutions are collecting taxes and spending. For further researchers it is suggested that further research on tax policies in countries in the Asia Pacific, be aware of policy differences in each country.

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