Analysis Of Economic Growth Determinant In Java Island 2015-2022

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ARTICLE INFO	ABSTRACT
	Economic growth in Indonesia is influenced by production factors such as capital, labor and technology. Labor has an important role in economic growth it depends on the ability of the economic system to absorb and utilize this workforce. Fiscal policy has a strategic role in economic growth. This research aims to examine the influence of labor and fiscal policy on economic growth on the island of Java in 2015-2022. The analytical method used is panel data regression using secondary data from six provinces on the island of Java. The research results show that labor, fiscal policy, the Human Development Index, and the unemployment rate have a significant influence on economic growth.

1. Introduction

Economic growth is the basis for achieving increased people's welfare, namely through increasing high economic growth. One effort to maintain economic stability is through certain steps to strengthen the resilience of the domestic economy to various shocks that arise, both domestically and abroad. According to BPS data, Java Island's economic growth rate actually decreased in 2015. Java Island's economic growth rate in 2015 was 5.22%, 0.29% lower than in 2014. This decrease was caused by the decline in production in several existing business sectors. On the island of Java, such as the agricultural and livestock sectors in DKI Jakarta and Central Java due to the conversion of agricultural land into land for housing and industry (Norlita, 2018) .

Economic growth in Indonesia fluctuates during the 2015-2022 period. This condition certainly does not just happen, but is caused by various economic factors. Below is a table of GRDP developments on the island of Java over the last seven years from 2015-2022

Table 1. 1 Development of GRDP on the Island of Java for the 2015-2022 Period (Billion)

Year	DKI Jakarta	DIY	Central Java	West Java	East Java	Banten
2015	1,454	0.08	0.80	1,163	1,331	0.36
2016	1,539	0.08	0.84	1,232	1,405	0.38
2017	1,635	0.09	0.89	1,300	1,482	0.41
2018	1,735	0.09	0.94	1,378	1,563	0.43
2019	1,836	0.10	0.99	1,449	1,649	0.45
2020	1,792	0.10	0.96	1,413	1,611	0.44
2021	1,856	0.10	0.99	1,468	1,669	0.46
2022	1,953	0.11	1,050	2,422	1,757	0.48

Source: Central Statistics Agency

Neo Classical Economic Growth Theory states that economic growth depends on the development of production factors, namely; capital, labor and technology (Nizar et al., 2013) . Indonesia's economic growth is influenced by several components, including labor. Lewis put forward his theory regarding employment, namely; excess workers are an opportunity and not a problem. Excess workers in one sector will contribute to output growth and the supply of workers in other sectors.

Theoretically and empirically, fiscal policy also has a very strategic role in stabilizing the economy, namely by balancing aggregate demand and aggregate supply. If the economy experiences significant inflationary pressure, for example, then stabilization policies are directed at reducing aggregate demand. On the other hand, when the economy experiences a recession, stabilization policies are more directed at stimulating aggregate demand (Nangarumba, 2016) .

In this research, data from 2015-2022 was taken due to changes in economic conditions before the Covid-19 pandemic in 2015-2018, during the Covid-19 pandemic in 2019-2021 and after the pandemic in 2022. During the Covid-19 pandemic, many companies carried out massive layoffs of employees. and economic growth also experienced a significant decline. For this reason, research was carried out to find out whether labor, regional expenditure, unemployment and the Human Development Index make economic growth stable.

Fiscal policy has a positive effect on economic growth based on research conducted by Khusnia . From the long-term estimation results using VECM calculations stated policy own influence to growth economics (Khusnia. 2018). The labor force has a positive effect on economic growth in Central Java. If the labor force increases by 1%, then Central Java's economic growth will increase to 0.945%. This

labor elasticity figure provides an indicator of the contribution of the labor force in Central Java to Central Java's economic growth (Deddy, 2008). The number of workers seen from the large number of working people in Indonesia in 2006-2012 has a positive effect on economic growth in Indonesia. With the increase in the number of working people in Indonesia, the productivity of the workforce will increase so that this can spur economic growth in Indonesia (Effendy, 2012).

Based on the description above, research needs to be carried out to examine further how this influence can impact economic growth in Indonesia in 2015-2022. From the background explanation above, researchers are interested in research with the following research title " The Influence of Labor Absorption and Fiscal Policy on Economic Growth in Indonesia in 2015-2022"

Hypotheses Development

A hypothesis is a temporary answer to a problem that is still presumptive in nature, because its truth must still be proven. Based on the theoretical basis and previous research, this research assumes that labor absorption and fiscal policy in the 2015-2022 period able to influence economic growth in Indonesia, so the hypothesis in this research is as follows:

H_1 : *Labor influential to Growth economy*

H_2: *Fiscal Policy influences economic growth*

H_3: *HDI has an effect on economic growth*

H_4 : *HDI has an effect on economic growth.*

2. Method
a. Type and Source of data
Data used in study is secondary data in the form of panel data from 2015-2022 in provinces on the island of Java. The data period for this research is 7 years between 2015-2022. Where secondary data is taken from the Central Statistics Agency (BPS) and the Indonesian Ministry of Finance .

b. Analysis Method
In this research, the analysis method used is panel data regression with the help of *E-views software* . Panel data regression is a combination of two data, namely *time series* and *cross section* so that it can provide more informative data and is better at detecting unobservable effects in *time series* and *cross section data* .

Several stages of data testing are as follows:

Panel Data Regression Analysis. The test in this multiple regression is to test how the independent variable influences the dependent variable . The following is the multiple regression analysis formula:

$Y_{it} = \beta_0 + \beta_1 x_{1it} + \beta_2 x_{2it} + \beta_3 x_{3it} + \beta_4 x_{4it} + e$

Information:

Y_{it} : Economic Growth (GRDP)

β_0 : Constant

$\beta_1 \beta_2 \beta_3 \beta_4$: Regression Coefficient

x_{1i} : Labor

x_{2it} : Fiscal Policy (PAD)

x_{3it} : HDI

x_{4it} : Unemployment n

e : Error

Estimation Method

a. Common Effect Model (CEM) Method

The Common Effect Model (CEM) is the simplest approach to estimating panel data regression by combining *time series* and *cross section data* and then estimating. By combining data without looking at differences in time and between individuals. This approach uses the *Ordinary Least Square* (OLS) method in estimating the model (Astuti, 2010) .

b. Fixed Effect Model (FEM) Method

Fixed Effect Model (FEM) is a model with a different intercept for each subject (cross section), but the slope for each subject does not change over time. This model assumes that the intercept is different for each subject while the slope remains the same between subjects. In this method, to estimate parameters, the *Least Square Dummy Variable* (LSDV) method is used. *Least Square Dummy Variable* (LSDV) is a method used to estimate linear regression parameters using OLS in models involving dummy variables as one of the predictor variables.

c. Random Effect Model (REM) Method

In the Random Effect Model (REM) differences between individuals and time are accommodated through *error* . This technique takes into account that errors may be correlated throughout *the time series* and *cross section* (Munandar, 2017)

Basically, there are three panel data estimation methods that can be selected according to the circumstances of the research, which can be seen from the number of individual tires and the research variables. In this research, the Hausman test was used only because Hausman is based on the idea that *Least Square Dummy Variables* (LSDV) in a *Fixed Effect method* and *Generalized Least Square* (GLS) in a *Random Effect method* are efficient while *Ordinary Least Square* (OLS) is inefficient.

3. Results and Discussion

Based on from t test results in table 4.8 then generated influence between variable power Work to growth economy has a prob t of 0.0378<0.05. That matter showing that variable power Work influential positive and significant to growth economy so that H_0 is rejected and H_1 is accepted whichever is possible means that

the more tall power existing work so the more high and growing economy on the island of Java.

That matter strengthened with research by Mariana, et al (2014) explains that one factor growth economy is source Power man or power Work . Source Power This own very important role as actors and goals development . That is , with absorption source Power good human as well as increases , then so too push growth economy . Explanation This is also supported by research conducted by Chairul Nizar , et al (2013) which states that investment government and absorption power Work to growth Indonesia's economy has influence positive .

If absorption power Work walk with kind and inclined increases , then absorption This can increase the country's GDP so economy growing . On the contrary , absorption power work that doesn't walk with Good will reducing the country's GDP so growth expected economy No will happen .

From the results study This can explained that power Work is one of the factor affecting growth economics , p This in accordance with theory classic Adam Smith (1729-1790) that allocation source Power effective human is beginner growth economy .

Based on from t test results in table 4.8 then generated influence between PAD variable against growth economy has a prob t of 0.000 < 0.05. That matter showing that the PAD variable has an effect positive and significant to growth economy so that H_0 is rejected and H_1 is accepted , which means the more high PAD then the more tall growth economy on the island Java .

This matter explained in research by Rozalinda (2015) . that policy fiscal is policy government in arrange every used state income and expenditure For guard growth economy in frame push growth economy . That means policy fiscal measures carried out by the government own impact to ups and downs growth economy . Opinion This is also supported by research from Rantebua , et al (2020) stated that policies issued by the government Good policy monetary nor policy fiscal own influence positive to growth Indonesian economy .

As for the relationship between PAD and growth compatible economy with research conducted by Rantebua , et al (2020) where PAD is one source expenditure area , if PAD increases then the funds are owned by the government area will more height and level independence area will increases too, so government area will initiative For more dig potency area and improve growth economy .

Based on from t test results in table 4.8 then generated influence between HDI variable against growth economy has a prob t of 0.000 < 0.05. That matter showing that the HDI variable has an effect positive and significant to growth economy so that H_0 is rejected and H_1 is accepted , which means the more high HDI then the more tall growth economy on the island Java .

Statement the in accordance with results research by (Kumenaung , 2021), that The Human Development Index (HDI) provides influence positive and significant to growth economy . Furthermore research by (Ezkirianto , 2013) also produces results that the HDI has influence on GDP in Indonesia. According to Ezkirianto level growth the economy also creates effect period the length is important in enhancement development man .

This matter Because The Human Development Index (HDI) reflects the quality of human capital being measured from indicator level education , health and power buy public . Connection between HDI and growth economy can seen from theory economy classic by Adam Smith, where growth economy caused by development technology and development resident . Progress technology causing more output much and more Good . Above p This can understood that the more both HDI and progress existing technology will reflect quality source Power good human beings , which has an impact on ascension growth economy

Based on from t test results in table 4.8 then generated influence between variable Unemployment to growth economy has a prob t of 0.0249<0.05 with mark coefficient of -44.30. That matter showing that variable unemployment influential negative and significant to growth economy so that H_0 is rejected and H_1 is accepted , which means the more tall unemployment so the more low growth economy on the island Java . The results of research by (Leni, 2021), that unemployment give influence to growth economy . If unemployment in a country increases , then give impact to growth growing economy decrease .

Connection unemployment with growth economy nature negative . It means if unemployment experience decline so growth economy experience increase. This matter because high unemployment will cause activity economy decrease so that income society will too decrease .

4. Conclusion

Based on research conducted with Fixed Effect Model approach and view to discussion that has been explained in Chapter IV with Labor variables , Policy fiscal , HDI and unemployment to Growth economy so obtained conclusion as following :
1. Labor influential significant to Growth economy . This matter interpreted that the more its height power Work so will influence growth economy on the island Java . This result due to labor is one of factor affecting Economic Growth on the Island of Java.
2. Policy Fiscal (Original Regional Expenditure) has an effect significant to growth economy . With matter the can said if policy fiscal the more tall so the more growth is also high economy on the island of Java. So, if expenditure original area increase then the funds are owned by the government area will

more height and level independence area will increases too, so government area will initiative For more dig potency area and improve growth economy .

3. The HDI (Human Development Index) has an effect significant to growth economy on the island of Java. The more good HDI then will reflect quality source Power good human beings , which has an impact on ascension growth economy on the island of Java. So, you can said if the HDI increases so can influence increase Growth economy on the island of Java

4. Unemployment own influence negative to growth economy . With This can seen if unemployment down so will cause growth economy rather become down . That matter because unemployment is something problem or inhibiting factors growth economy on the island of Java.

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Declaration of Competing Interest

The author declares that there is no conflict of interest.

Ethical Approval

Ethical approval No patient-identifying parts in this paper were used or known to the authors. Therefore, no ethical approval was requested.

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