Determinants of The Unemployment University Graduates in Java Island

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Abstract

This study aims to analyze the effect of the Provincial Minimum Wage, Economic Growth, Foreign Investment, and Inflation on the educated unemployment of university graduates in Java. This study uses a quantitative method with panel data from 6 provinces in Java and in the 2010-2020 period. The test in this study uses the Fixed Effect regression analysis method with the Ordinary Least Square (OLS) method. The result of this research is that the variable of economic growth has a significant effect on the impact of educated university graduates on the island of Java, while the variables of the provincial minimum wage, foreign investment, and inflation have no significant effect. Suggestions from the results of this study are that the government and companies pay more attention to the welfare of the community and their employees. The government can maintain the stability of economic growth and pay more attention to macro policies related to economic growth. The government can optimize the role of established foreign investment in Indonesia to be able to absorb more workers and make regulations that encourage companies to be more productive so as to increase production output.

Keywords: *Unemployment, Minimum Wage, Economic Growth, Foreign Investment, Inflation*

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh Upah Minimum Provinsi, Pertumbuhan Ekonomi, Penanaman Modal Asing, dan Inflasi terhadap pengangguran terdidik lulusan universitas di Jawa. Penelitian ini menggunakan metode kuantitatif dengan data panel dari 6 provinsi di Jawa dan pada periode 2010-2020. Pengujian dalam penelitian ini menggunakan metode analisis regresi Fixed Effect dengan metode Ordinary Least Square (OLS). Hasil penelitian ini adalah variabel pertumbuhan ekonomi berpengaruh signifikan terhadap dampak lulusan perguruan tinggi terdidik di pulau Jawa, sedangkan variabel upah minimum provinsi, penanaman modal asing, dan inflasi tidak berpengaruh signifikan. Saran dari hasil penelitian ini adalah pemerintah dan perusahaan lebih memperhatikan kesejahteraan masyarakat dan karyawannya. Pemerintah dapat menjaga stabilitas pertumbuhan ekonomi dan lebih memperhatikan kebijakan makro terkait pertumbuhan ekonomi. Pemerintah dapat mengoptimalkan peran penanaman modal asing yang sudah mapan di Indonesia agar mampu menyerap lebih banyak tenaga kerja serta membuat regulasi yang mendorong perusahaan untuk lebih produktif sehingga dapat meningkatkan output produksi.

Kata Kunci: Pengangguran, Upah Minimum, Pertumbuhan Ekonomi, Penanaman Modal Asing, Inflasi

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INTRODUCTION

Realizing the creation of community welfare is the main goal of economic development. With high economic growth, it will be in line with good economic development. However, in reality, there are still many cases where high economic growth is not followed by an increase in the welfare of the community. This shows that indicators of economic development are not only high economic growth, but there are other indicators such as reduced poverty rates, equitable distribution of income, and reduced unemployment rates.

These indicators can encourage economic development to run well. The theoretical basis that strengthens this argument is economic development according to Arsyad (1999) him that economic development is related to poverty, unemployment, and income inequality. If these three things are decreasing in number, in the sense that their performance is getting better, it indicates that economic development is taking place in the region.

However, if one or two of the three problems the performance is getting worse, then it cannot be said that there is economic development in the region even though the per capita income has doubled. One of the efforts to build the economy is to create large job opportunities (Rahmawati & Putri, 2021). The ability of a country to create jobs is a step in reducing the unemployment rate. With the creation of this job field, it is hoped that it will create a multiplier effect on the unemployment rate, reduce poverty, and increase the income that drives a country's economic growth.

As a developing country, Indonesia cannot be separated from the problem of unemployment. The complexity of the unemployment problem in Indonesia cannot be separated from the many factors that influence it. The occurrence of unemployment in a country can be due to the number of jobs in a certain area that cannot meet the number of the labor force or the amount of demand for jobs that is not balanced.

This results in an increase in the number of labor growth exceeding the number of job opportunities. Unemployment is defined as a person who belongs to the labor force and is actively looking for work at a certain wage level, but does not get the desired job. According to Todaro and Smith (2006), unemployment in developing countries is generally dominated by youth unemployment and educated unemployment.

One of the problems related to employment is the high level of unemployment among educated people. Educated unemployment itself is the ratio of the number of job seekers with high school education and above (as an educated group) to the size of the workforce in that group and is usually expressed in percent. With the existence of educated unemployment, it can potentially cause various negative impacts.

Looking at the percentage of the working population in table 1, it can be concluded that the absorption of labor from 2010 to 2020 is still dominated by workers with low education, even though the level of education can indicate the quality and productivity of the workforce. The number of workers at the diploma/graduate education level is not higher than the workforce at the SMA/SMK education level, this also reflects that the absorption of labor in Indonesia has not been maximized in absorbing workers at

the diploma/bachelor education level where they are workers. graduated from university.

Table 1. Percentage of Working Population by Highest Education Completed

Year	Elementary and junior high	Vocational school/High School	Diploma/Bachelor
2010	75.14%	24.8%	8.27%
2011	74.88%	25.97%	8.82%
2012	74.1%	26.75%	9.95%
2013	72.48%	27.83%	10.43%
2014	74.32%	29.1%	11.22%
2015	71.53%	30.65%	12.64%
2016	60.24%	27.52%	12.24%
2017	60.08%	27.86%	12.06%
2018	58.78%	29.04%	12.18%
2019	57.54%	30.36%	12.4%
2020	57.84%	29.83%	12.33%

Source: Indonesia's Labor Situation 2010-2020

Todaro and Smith (2006) state that unemployment in developing countries is generally dominated by youth unemployment and educated unemployment. In Indonesia itself, educated unemployment is still a fairly complex problem seen from the quality of education itself in Indonesia, which is considered to be still not evenly distributed. The concept of educated unemployment itself refers to the unemployment of the workforce who has a minimum education level of high school/equivalent.

Table 2. Unemployment of University Graduates in Java Island in 2010-2017 (person)

Year	Jakarta	West Java	Central Java	East Java	Yogyakarta	Banten
2010	74,826	142,240	77,400	82.040	24,467	53,477
2011	51.427	84,608	73.763	64,267	11,338	18.069
2012	78,932	49,328	40,666	40,959	10,212	30,031
2013	34 716	59 954	36 658	37 571	10 918	23 623
2014	38 964	52 808	26 226	43 987	12 825	24 797
2015	55 318	88 958	51 403	70 705	14 482	25 317
2016	29 035	89 271	30 173	73 617	4 149	25 704
2017	41 750	109 561	43 257	34 862	14 633	34 862
2018	469 66	126 618	64 991	93 624	21 978	28 796
2019	35 850	139 465	68 500	92 158	13 135	34 485
2020	60 141	217 609	89 543	115 676	18 505	41 315

Source: The state of the Indonesian workforce 2010-2020

College graduates are expected to be able to improve this nation in the future but are trapped in the educated unemployment rate. This phenomenon indicates that someone with higher education does not guarantee that they will get a job. Problems that arise with the existence of educated unemployment include the wastage of educational resources and the decline in public respect and trust in the world of education.
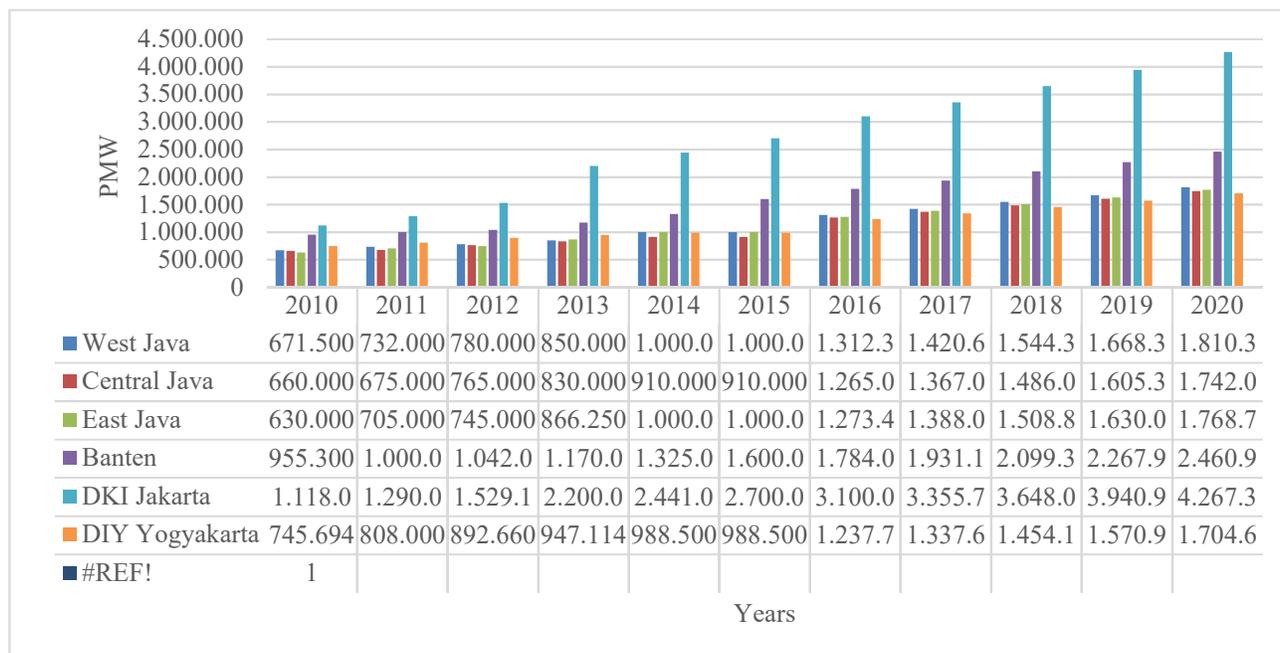

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
■ West Java	671.500	732.000	780.000	850.000	1.000.0	1.000.0	1.312.3	1.420.6	1.544.3	1.668.3	1.810.3
■ Central Java	660.000	675.000	765.000	830.000	910.000	910.000	1.265.0	1.367.0	1.486.0	1.605.3	1.742.0
■ East Java	630.000	705.000	745.000	866.250	1.000.0	1.000.0	1.273.4	1.388.0	1.508.8	1.630.0	1.768.7
■ Banten	955.300	1.000.0	1.042.0	1.170.0	1.325.0	1.600.0	1.784.0	1.931.1	2.099.3	2.267.9	2.460.9
■ DKI Jakarta	1.118.0	1.290.0	1.529.1	2.200.0	2.441.0	2.700.0	3.100.0	3.355.7	3.648.0	3.940.9	4.267.3
■ DIY Yogyakarta	745.694	808.000	892.660	947.114	988.500	988.500	1.237.7	1.337.6	1.454.1	1.570.9	1.704.6
■ #REF!	1										

Years

Figure 1. Provincial Minimum Wage in Java Island 2010-2020 (IDR)
Source: BPS Provincial Minimum Wage

Table 2 describes the level of educated unemployment of university graduates in Java. The number of educated unemployed university graduates is relatively high. The five provinces with the highest educated unemployment in Indonesia, and the five provinces are on the island of Java. West Java Province ranks first, namely West Java Province which has a high number compared to other provinces on the island of Java, followed by Central Java, East Java, Banten, and DKI Jakarta.

In 2010 the unemployment rate became 9.5 million, and most of the unemployed were D3 and S1 graduates. So it can be concluded, most of the workers absorbed are workers with high school education and below. On the other hand, employment is a measure of the success of education. Educational level is considered as a means of obtaining quality graduates (Human Resources). Education is seen as able to graduate students to become high-quality workers, have a broad mindset and act in a good way. It is said that because in an educational process there is learning and training that supports it.

A person who has a low level of education generally has a higher job opportunity than someone who has an upper secondary education level or higher education. If it is related to the level of wages, a person with low education can

be more prepared to accept all types of work with low wages while someone with an upper secondary or higher education level will

choose the minimum wage level they want, namely at a wage level that they think is equivalent to their level of education.
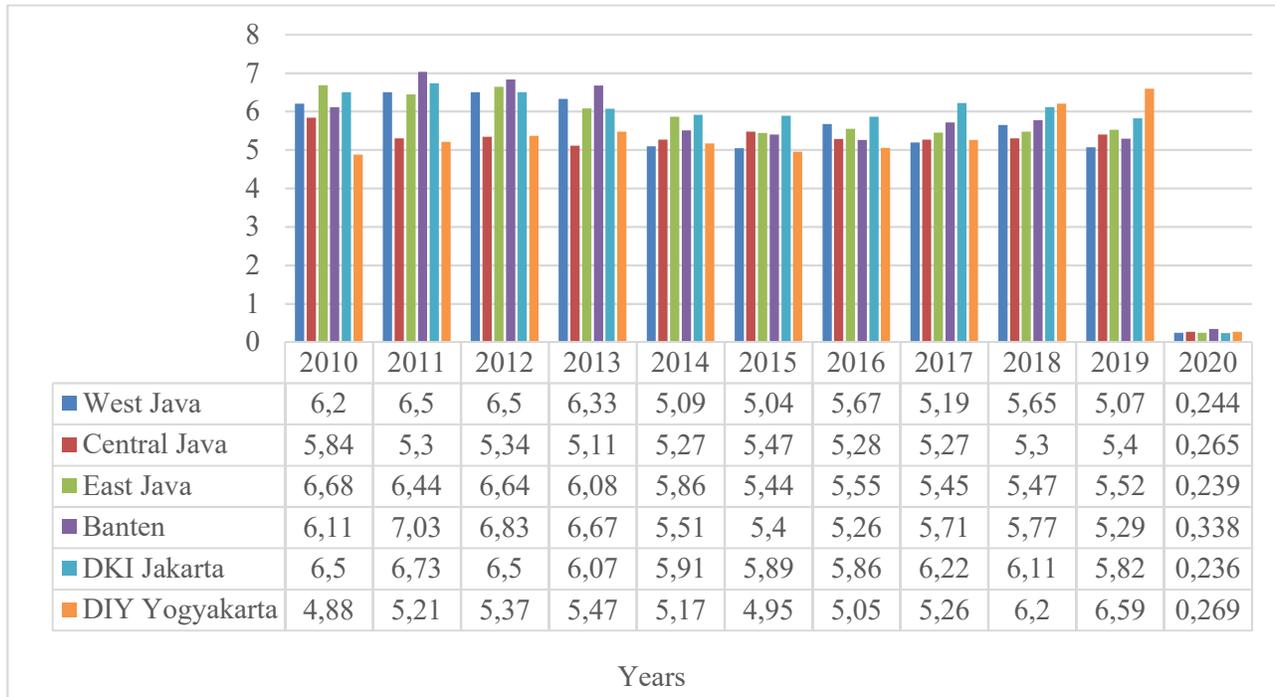

Years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
West Java	6,2	6,5	6,5	6,33	5,09	5,04	5,67	5,19	5,65	5,07	0,244
Central Java	5,84	5,3	5,34	5,11	5,27	5,47	5,28	5,27	5,3	5,4	0,265
East Java	6,68	6,44	6,64	6,08	5,86	5,44	5,55	5,45	5,47	5,52	0,239
Banten	6,11	7,03	6,83	6,67	5,51	5,4	5,26	5,71	5,77	5,29	0,338
DKI Jakarta	6,5	6,73	6,5	6,07	5,91	5,89	5,86	6,22	6,11	5,82	0,236
DIY Yogyakarta	4,88	5,21	5,37	5,47	5,17	4,95	5,05	5,26	6,2	6,59	0,269

Figure 2. Economic Growth Rate on the Basis of Constant Prices 2010-2020 (percent)

Source: BPS Economic Growth Rate at constant prices 2010-2020

Mankiw (2007) concludes that wages are one of the factors that affect the unemployment rate because an increase in the minimum wage will reduce the demand for labor which will lead to unemployment. Each region has a different minimum wage level, the higher the level of the economy, the higher the wage offered. Wages will basically increase every year which is one of the determinants of wages, namely the Decent Living Component (KHL), where the KHL almost always increases every year.

In this case, the wages that increase every year are nominal wages. Figure 1 shows that the Provincial Minimum Wage (UMP) on the island

of Java always increases every year, but the educated unemployment rate is still high. Unemployment also occurs because of a high labor force but is not matched by the rate of job opportunities. This condition is also related to economic growth because economic growth indicates the state of the economy in an area.

The higher the economy in an area will encourage the company to increase the amount of output. Then, the company will increase its activities that impact job opportunities. the economic growth of the province in Java in the last ten years from 2010 - 2020 is quite good, which is always at 5-6%. Still,

in 2020 there was a drastic decline in economic growth because of a covid-19 pandemic that lasts for 2020.

A study conducted by economist Arthur Okun (Okun's Law) tried to explain the relationship between economic growth and unemployment. Arthur Okun says that if real GDP grows by 2.5% above its trend, achieved in a given year, unemployment will fall by 1% (Arsyad, 1999). As mentioned in figure 2, economic growth is defined as an increase in GDP regardless of whether the increase is greater or less than the rate of population growth, and whether there is a change in the economic structure or an improvement in the institutional system or not.
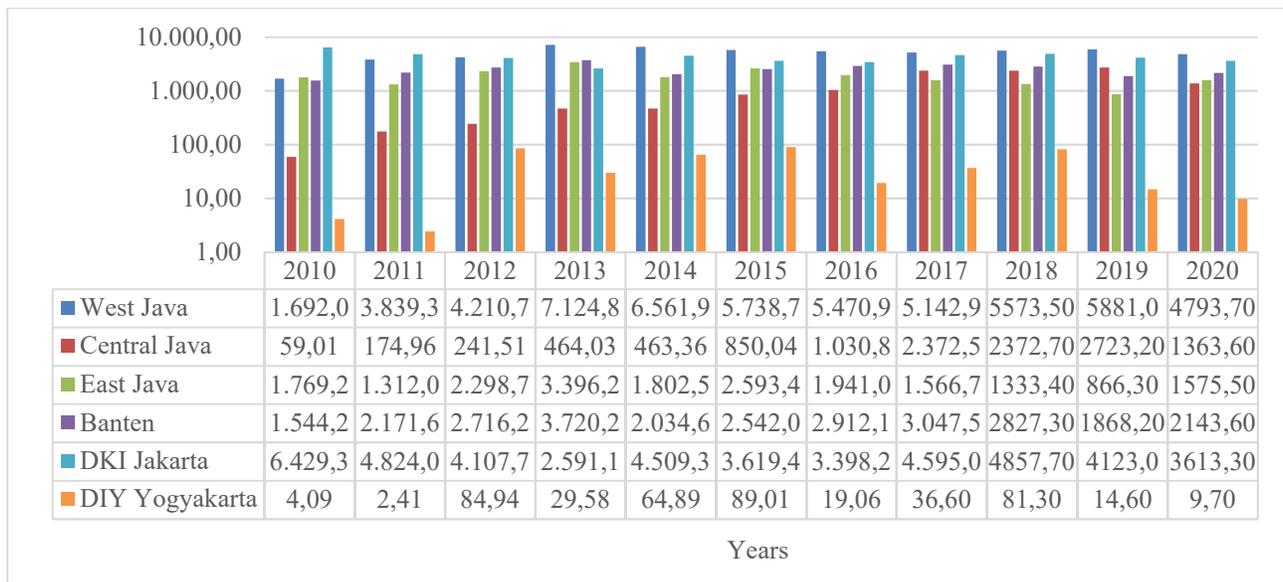

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
■ West Java	1.692,0	3.839,3	4.210,7	7.124,8	6.561,9	5.738,7	5.470,9	5.142,9	5573,50	5881,0	4793,70
■ Central Java	59,01	174,96	241,51	464,03	463,36	850,04	1.030,8	2.372,5	2372,70	2723,20	1363,60
■ East Java	1.769,2	1.312,0	2.298,7	3.396,2	1.802,5	2.593,4	1.941,0	1.566,7	1333,40	866,30	1575,50
■ Banten	1.544,2	2.171,6	2.716,2	3.720,2	2.034,6	2.542,0	2.912,1	3.047,5	2827,30	1868,20	2143,60
■ DKI Jakarta	6.429,3	4.824,0	4.107,7	2.591,1	4.509,3	3.619,4	3.398,2	4.595,0	4857,70	4123,0	3613,30
■ DIY Yogyakarta	4,09	2,41	84,94	29,58	64,89	89,01	19,06	36,60	81,30	14,60	9,70

Years

Figure 3. Foreign Investment (FDI) in Java Island 2010-2020
Source: Investment Coordinating Board (BKPM) and BPS, 2021

This means that economic growth will directly or indirectly create jobs, where when economic growth rises it is expected to create output growth, so it takes a lot of labor to catch up with the output, then jobs are created and in the end, unemployment is reduced. Economic growth and unemployment are closely related because the working population contributes to the production of goods and services.

It can be concluded that there is a negative relationship between economic growth and unemployment, so the higher the unemployment rate, the lower the rate of economic growth. Based on Figure 3, it can be seen that foreign investment in Java fluctuated from 2010-to 2020. Lack of investment is one of the causes of the high level of unemployment because the incoming investment it can help economic growth and development run well.

In this case, foreign investment has a very important role in supporting the success of economic development in a country. Foreign investment generally requires trained personnel so that the size of foreign investment will affect educated unemployment. According to the National Economic Committee (KEN) said investment outside Java, if it is not the government that conducts it, investors do not

want to invest because investment outside Java is due to slower returns compared to investment in Java. The relationship between investment and unemployment can be seen in Hard Dommar's growth theory.

In this theory, Hard Domar argues that investment (I) is defined as a change in the capital stock (K) which is represented by delta K (I = delta K) because the amount of capital stock K has a direct relationship with the amount of national income. (Sukirno., 2004). This means that investment will increase production capacity by increasing the capital stock, meaning that investors will affect the supply side, meaning that by increasing production capacity, a larger number of workers will be needed.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
■ West Java	6,45	3,08	3,8	8,87	7,37	2,72	2,74	3,57	3,54	3,21	2,18
■ Central Java	6,88	2,68	4,24	7,99	8,22	2,73	2,36	3,71	2,82	2,81	1,56
■ East Java	6,75	4,63	4,41	7,38	7,53	3,07	2,7	3,99	2,86	2,12	1,44
■ Banten	6,1	2,78	6,1	9,65	10,2	4,29	2,94	3,98	2,66	2,77	1,40
■ DKI Jakarta	6,21	3,97	4,52	8	8,95	3,3	2,37	3,72	3,27	3,23	1,59
■ DIY Yogyakarta	7,38	3,88	4,31	7,32	6,59	3,09	3,17	4,13	3,42	3,30	1,45

Tahun
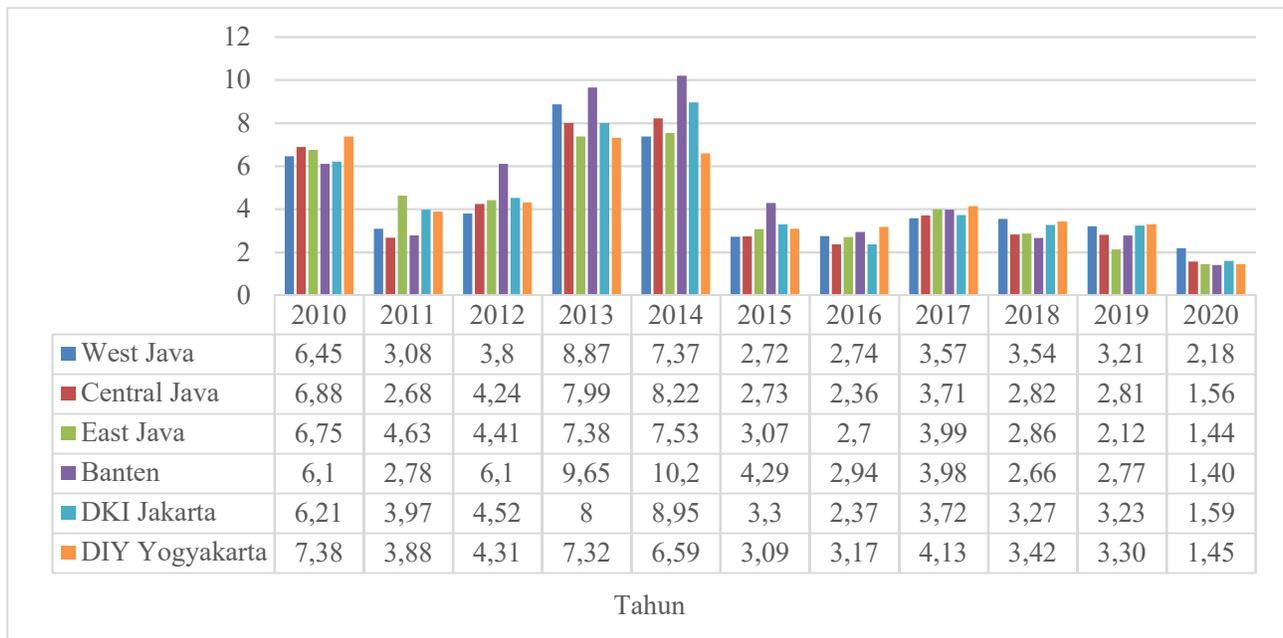
Figure 4. Inflation in Java Island 2010-2020 (percent)
Source: Central Bureau of Statistics, 2021

The level of investment affects the magnitude of the unemployment rate. The higher the level of investment, the higher the opportunity for job creation. The number of new jobs will reduce the number of unemployed. Investment has an important role in creating job opportunities. The investment will increase the stock of capital goods, it will affect the increase in production capacity.

The higher production capacity definitely requires new workers. Investment is a tool to accelerate the growth of production levels in developing countries, thus investment acts as a means to create job opportunities and absorb unemployment. Based on Figure 4, it can be seen that the inflation in the provinces in Java experienced a fluctuating increase and even in 2014 in Banten, the inflation reached 10.2%.

In a study conducted by Rizka (2015), one of the factors that cause unemployment is the decline in people's purchasing power. The declining purchasing power of the people can reduce the number of goods or services produced by the company, with these conditions

the company will reduce the demand for labor which has an impact on reducing job opportunities so that unemployment will increase. Unemployment caused by people's purchasing power indicates a relationship with inflation because inflation affects people's purchasing power.

Human Capital Theory is composed of two basic words, namely human and capital. As this theory develops, the concept of human capital can be defined into three. The first concept is human capital as an individual aspect. This concept states that human capital is an ability that exists in humans, such as knowledge and skills. Human capital can be achieved or obtained in two ways.

First, humans are used as labor based on their quantitative quantities. This states that the more the number of people or labor, the higher the productivity. Second, investment is the main way to increase or get human capital. Education and training obtained by humans will improve their abilities and skills, so productivity will also increase. This second method is no longer concerned with the quantity of the workforce.

Todaro (2006) revealed that human capital can be measured through education and health. Education and training can be an added value for a human being. This can be explained if the higher a person's education or the more training they have, the higher their abilities and skills. Meanwhile, health is an interrelated field with education. Higher education that is owned without a healthy body will not increase productivity.

The measurement of education indicators is carried out by combining two components, namely the literacy rate and the average length of schooling. The average length of schooling can clearly describe the quality of a person's

education, such as elementary school graduates with doctoral or bachelor's degrees will have different abilities that affect the level of productivity and influence in getting job opportunities. In other words, a person's education level will affect someone in getting a job, so it will affect the unemployment rate in a country.

Unemployment itself is a condition where someone who is included in the labor force wants to get a job but has not got it. A person who is not working but is not actively looking for work is not classified as unemployed (Sukirno., 2004). There are several theories that explain the Unemployment Theories in Indonesia, namely: Classical Theory: this classical theory explains the view that unemployment can be prevented through the supply side and the price mechanism in the free market in order to ensure the creation of demand that will absorb all supply.

In the classical theory, if there is an excess supply of labor, wages will fall and this causes the company's production to fall. So the demand for labor will continue to increase because the company is able to expand production resulting in low profits. Keynesian theory: in responding to the problem of unemployment, Keynes's theory said that contrary to the classical theory, according to Keynes's theory, the problem of unemployment actually occurred due to low aggregate demand. So that the inhibition of economic growth is not caused by low production but low consumption.

According to Keynes, this cannot be delegated to a free market mechanism. When labor increases, wages will decrease, this will be detrimental, not profitable, because a decrease in wages means lowering people's purchasing power for goods. Finally, producers will

experience losses and cannot absorb labor. Unemployed educated workers are generally identical to the educated young age group, the educated unemployed are mostly workers who have just finished their education and are waiting to get suitable job opportunities.

While waiting for a suitable job opportunity, the cost of living expenses needed can be borne by the family, because the family's social status is relatively capable (Mulyono, 1997). The difference between the educated labor market and the uneducated labor market lies in productivity, where the productivity of the educated workforce is higher than the productivity of the uneducated workforce.

This happens because educated workers have gone through a training system in their education bench (Cahyani, 2014). The purpose of this study is to identify and analyze the effect of the minimum wage, economic growth, foreign investment and inflation on unemployment of university graduates in Java Island in 2010-2020.

RESEARCH METHODS

This type of research is a descriptive quantitative research using data in the form of numbers that are processed using analytical tools. The output results will be explained using descriptive analysis both according to the theory and deviating from the existing theory. This study uses panel data, which is a combination of annual time series data, from 2010 to 2020 and cross-section data from six provinces in Java.

Data on provincial minimum wages, economic growth, foreign investment, and inflation in six provinces on the island of Java uses data released by the Central Statistics Agency through the publication of Statistics Indonesia. The data analysis method used in this study is to describe the factors that influence the problems that are used to support the results of panel data regression.

The type of data used is secondary data which is panel data. Panel data is a combination of cross-section data and time-series data. Widarjono (2013) states that panel data is a combination of cross-section data with time series data which can be seen from the dependent variable consisting of several regions (cross-sections) but in various time periods (time series). The equation used to determine the effect of wages, economic growth, foreign investment and inflation on educated unemployment university graduates, which in this study uses panel data analysis (pooled data) as a data processing tool using the Eviews 10 program. The variable equation model in this study is as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + e_{it} \dots\dots\dots\dots\dots\dots (1)$$

Information:

Y_{it}	:	Uneducated Unemployed University Graduates
β_0	:	Constant
β_1	:	Coefficient of Provincial Minimum Wage
β_2	:	Coefficient of Economic Growth
β_3	:	Foreign Investment Coefficient
β_4	:	Inflation Coefficient
X_{1it}	:	Provincial Minimum Wage
X_{2it}	:	Economic Growth
X_{3it}	:	Foreign Investment
X_{4it}	:	Inflation
e	:	Error

The object studied is in this study the variables used to consist of the dependent variable and the independent variable. The dependent variable (Y) is university graduate

unemployment and the independent variable (X) consists of the provincial minimum wage, economic growth, foreign investment, and inflation. This research was conducted in all provinces on the island of Java (Banten Province, West Java Province, Central Java Province, East Java Province, DKI Jakarta, DI Yogyakarta).

RESULTS AND DISCUSSION

To estimate the effect of the provincial minimum wage, economic growth, foreign investment, and inflation on educated unemployment of university graduates in Java in 2010-2020, it is necessary to select the best model to be selected in this study using the Chow test and Hausman.

Considering the research data used is secondary data, then to meet the requirements determined before testing the hypothesis through the t-test and F test, it is necessary to test the classical assumptions. Where the classical assumption test consists of normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. In this study, the classical assumption test has been carried out. With the results stating that the data in this study passed the normality test.

Table 3. Chow Test Results

Effect Test	Statistics	df	Prob.
Cross-section F	9.857159	(5.56)	0.0000
Cross-section Chi-Square	41.667571	5	0.0000

Source: Results of data processing using E-Views 10

In the panel data, there are three models, namely the common effect model, the fixed-effect model, and the random effect model. There are several methods in choosing the best model on panel data, including the Chow test and the Hausman test. Chow test is used to test the suitability of the model, namely the model obtained with least squares panel data with the model obtained using the fixed-effect method, while in the Hausman test the best model obtained from the Hausman test results obtained from the random-effects model.

In this Chow test, there are two models to be chosen, namely the common effect model and the fixed effect model. If the result of the Chi-Squared probability is greater than 0.05, then the common effect model is chosen, while if the Chi-Squared probability is less than 0.05, the model chosen is the fixed effect model.

Based on the data processing, the results of the chow test can be seen in table 3.

Based on the results of the table 3, it can be seen that the probability value of the Chi-square cross-section is 0.0000 which means less than 0.0,5 and Cross-Section F of 0.0000 <0.05 and significant to = 5% with df (5.56), so it can be decided that the chosen model is the fixed effects model. The Hausman test is used to select the model that should be used, whether it is a fixed effect or a random effect.

If the result of the Chi-Square probability is greater than 0.05, then the random effect model is used, while if the Chi-Square probability is less than 0.05, the fixed-effect model is used. Based on the data processing carried out, the results of the Hausman test can be seen in table 4. Based on the table 4, it can be seen that the random cross-section probability

value is 0.0044 which means it is smaller than 0.05 so that the model that should be chosen is the fixed effect model. Based on table 5, the following model is obtained:

$$Yit = 125412.0 - 0.009696X1it - 7125.757X2it - 3.585957X3it - 2474.209X4it + eit$$

From the model estimation results, it is known that the provincial minimum wage variable has a negative and insignificant effect on unemployment for university graduates in Java Island in 2010-2020. The regression coefficient value for the population variable

shows a negative sign of -0.009696 and a probability value of 0.1466 > (0.05).

The results of this study that the wage level is negatively and insignificantly related to the unemployment rate of educated university graduates on the island of Java, this is not in accordance with the hypothesis of this study. If viewed from the side of the entrepreneur, an increase in wages will increase the costs incurred by the company, it will reduce the efficiency of expenditure so that the entrepreneur will take a policy of reducing labor in order to reduce production costs.

Table 4. Hausman Test Results

TestiSummary	Chi-Sq.Statistic	Chi-Sq.df	Prob.i
Cross-sectionIrandom	15.128984	4	0.0044

Source: Results of data processing using IE-Views 10

This will result in an increase in unemployment, as in a study conducted by Gorry (2011) that in France an increase in wages can lead to an increase in unemployment. In the short term, an increase in the minimum wage increases the employment rate which makes firms less selective which also leads to a decrease in job creation.

However, this is in accordance with the wage rate theory according to Mankiw (2003) that wages are one of the factors that affect the unemployment rate because an increase in the minimum wage will reduce the demand for labor which will lead to unemployment.

The estimation results in this study are not significant, which means that the provincial minimum wage variable has no effect on unemployment for university graduates on the island of Java, this is because educated

unemployment is different from open unemployment. Educated workers are more difficult to find work because educated workers are more selective in getting jobs. If this is related to wages, educated workers have their own minimum wage value, whereas the higher the level of wages offered, the supply of educated workers will increase. The higher the level of education of a person, the higher the expectation of getting a suitable job.

The increase in wages each year in each province on the island of Java does not have much influence on the demand for labor. In fact, there are still many workers who receive wages below the minimum wage, even though the government always raises the minimum wage every year.

The results of this empirical study indicate that the minimum wage policy which is an

instrument of the government in an effort to improve the welfare of employees is not always in line with the main goal of creating national welfare. The minimum wage in this case the UMP is an obstacle for companies to be able to absorb all available labor in the market.

Table 5. Estimation Results of the General Least Square (GLS) Method of Fixed Effect Model

Variable	Coefficient	t-Statistic	Prob.
C	125412.0	6.148824	0.0000
Provincial Minimum Wage (X1)	-0.009696	-1.471956	0.1466
Economic Growth (X2)	-7125,757	-3.461092	0.0010
Foreign Investment (X3)	-3.585957	-1.108431	0.2724
Inflation (X4)	-2474.209	-1.620638	0.1107
Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.694912		
Prob(F-statistic)	0.000000		

Source: Results of data processing using E-Views 10

In other words, the UMP creates price rigidity in the labor market so that the price of labor is above the equilibrium price. This creates conditions where supply exceeds demand for labor, resulting in unemployment. In addition, the UMP also creates conditions for a decrease in labor absorption due to the disproportion between labor growth (i.e. the number of labor force continues to grow) with the capacity of producers who absorb labor slowly.

The relationship between the number of wages that affect the number of unemployed is explained by Kaufman and Hotckiss (1999) in Mustika (2010). Workers who determine the level of wages at a certain wage level, if all wages offered are below that wage level, will refuse to get the wage and consequently cause unemployment. If the wage set in an area is too low, it will result in a high number of unemployment that occurs in that area.

From the estimation results of the model, it is known that the economic growth variable has a negative and significant effect on educated unemployment of university graduates in Java Island in 2010-2020. The value of the regression coefficient for the variable of economic growth shows a negative sign of -7125,757 and a probability of 0.0010 < (0.05).

This shows that for every 1% increase in economic growth, the number of unemployed educated university graduates in the provinces on the island of Java will decrease by 7.12%. This result is consistent with Shabbir (2021) that economic growth has a negative and significant effect on the educated unemployment of university graduates on the island of Java. The results of this study are in accordance with the research hypothesis and theory of Arthur Okun or Okun's Law.

Arthur okunstates that an increase of economic growth can reduce the unemployment rate. Economic growth reflects the state of the economy in an area. Increased economic growth can encourage economic activity, with increased economic activity encouraging companies to produce, and the higher the level of production,

the higher the opportunity to develop for companies so that companies will increase the number of workers.

This study is in line with research conducted by Suhendar and Wicaksono (2016) where the variable economic growth has a negative and significant effect on educated unemployment. The results of this study are not consistent with Rizka (2015) which states that the variable economic growth has a negative and insignificant effect on educated unemployment.

The economic growth in every province on the island of Java is relatively high, where the island of Java itself is the center of the Indonesian economy and one of the provinces on the island of Java, namely DKI Jakarta, is the capital city of the country where the center of government and economic activities is centered in DKI Jakarta. West Java Province is also the heart of the national industry, which is filled with industrial areas. With this description, the economic activity on the island of Java tends to be high which encourages companies to increase their productivity.

From the estimation results of the model, it is known that the foreign investment variable (FDI) has a negative and insignificant effect on the unemployment of educated university graduates on the island of Java in 2010-2020. The regression coefficient value for the human development index variable shows a negative sign of -3.585975 and a probability value of 0.2724 > (0.05). The results of the estimation of the coefficients are in accordance with the research hypothesis and Harrod Domar's theory.

Harrod Domar's theory states that capital formation is considered as an expenditure that will increase the ability of an economy to produce goods or services, as well as an expenditure that will increase the effective demand of the whole community. increase production activities and increase employment opportunities.

However, the estimation results show that the PMA variable or foreign investment does not have a significant effect on educated unemployment for university graduates on the island of Java. One of the causes of the PMA variable being insignificant is because the development of investment invested in Indonesia itself is increasingly capital and technology-intensive. This actually does not create many jobs. This shows that a large investment value does not always create a lot of jobs.

The trend of foreign investment that is increasingly capital intensive is also recognized by the European Business Chambers of Commerce (EuroCham) Indonesia, as the association that houses European companies with business interests in Indonesia. According to the EuroCham organization, there are a number of sectors that are being targeted by European companies in Indonesia, such as the automotive, logistics, and pharmaceutical sectors, where the three sectors are capital-intensive sectors, so they do not absorb much labor because they are more expensive. using a lot of sophisticated machines in the production process.

Throughout 2020 there was also a disaster of the COVID-19 virus pandemic, which with the occurrence of the Covid-19 virus pandemic required the government to take action in the form of Large-Scale Social Restrictions (PSBB) to prevent the spread of the Covid-19 virus,

resulting in a halt in economic activity. This has become one of the driving factors for the disruption of economic activity that triggered the economic crisis. The impact of the COVID-19 pandemic has led to low investor sentiment towards the market, which in turn has led the market to tend to be negative.

This study is not consistent with Prasaja (2013) where the results of the study stated that foreign investment had a negative and significant effect on educated unemployment in Central Java. From the model estimation results, it is known that the inflation variable has a negative and insignificant effect on the educated unemployment of university graduates in Java Island in 2010-2020. The regression coefficient value for the inflation variable is -2472.209 and the probability value is 0.1107 > 0.05.

In the results of the coefficients which show a negative relationship, this is not in accordance with the theory of Edmund Phelps and Milton Friedman, that inflation has a positive or unidirectional movement with unemployment. One of the causes of inflation is because in 2013-2014 the increase in electricity and fuel tariffs will increase production costs so that product prices will increase. The high production costs incurred make producers will reduce the number of workers and that means the number of absorption of labor will decrease.

Unemployment which is influenced by people's purchasing power. If inflation is high, people's purchasing power of production goods will decrease. Overall it can be said that inflation in Java is not solely caused by a monetary phenomenon, but rather a fiscal phenomenon. This is also in line with the structuralist theory which states that inflation in developing countries is also caused by an increase in

production costs or cost-push inflation, namely inflation that occurs due to a continuous increase in the cost of production factors.

The production costs that continue to rise cause production activities to decline which has an impact on reducing employment. In addition, one of the policies in reducing the inflation rate carried out by the government is to increase bank interest rates. This policy can indeed reduce the inflation rate by attracting the amount of money in circulation, but indirectly rising interest rates will have an impact on increasing loan interest rates, where this will make it difficult for companies to find business capital, so companies will reduce the number of workers to cover costs. production.

The results of this study are supported by research conducted by Muhammad and Nugroho (2013). Inflation does not have a significant effect on unemployment due to various factors that affect inflation. Theoretically, the relationship between inflation and unemployment in this finding is in accordance with the interpretation of Phelps and Friedman on the long-run Phillips curve. There is no trade-off relationship between inflation and unemployment.

CONCLUSION

Based on the results of the study, it can be concluded as follows: the Provincial Minimum Wage variable has a negative and insignificant effect on educated unemployment of University Graduates in Java Island in 2010-2020. This is because the minimum wage in this case the UMP is an obstacle for companies to be able to absorb all available labor in the market.

The variable of economic growth has a negative and significant influence on the unemployment of educated university graduates

in Java in 2010-2020. The high rate of economic growth in Java reflects the economic activity in Java tends to be high which encourages companies to increase their productivity.

The variable of foreign investment has a negative and insignificant effect on educated unemployment of university graduates in Java Island in 2010-2020. This is because the development of investments invested in Indonesia itself is increasingly capital and technology-intensive. This actually does not create many jobs.

The inflation variable has a negative and insignificant effect on educated unemployment in Java in 2010-2020. This is because unemployment which is influenced by people's purchasing power also causes a relationship with inflation because inflation affects people's purchasing power.

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