

Analysis of Economic Growth and Investment on The Welfare of The Community of Central Java

Sugeng Haryono¹, Nurlaela²

Program Studi Teknik Informatika, Fakultas Teknik & Ilmu Komputer, Universitas Indraprasta PGRI Jakarta, Indonesia^{1,2}

Abstract. The author's purpose in researching is to find out more about economic growth on the welfare of the people in Central Java. To find out whether investment has an effect on the welfare of the people in Central Java. This study uses a quantitative method, with multiple linear regression analysis using panel data of 350 samples, taken from 29 districts, 6 cities in Central Java with a total sample of 10 years (from 2011 to 2020). The independent variables in this study are economic growth and investment, human welfare as the dependent variable. The result of this research is that Economic Growth and Investment simultaneously have a significant effect on Human Welfare, this shows that these two variables need to be considered by local governments. The implementation of the results of this study is that local governments must always maintain the regional economy by helping and supporting the marketing of domestic products so that they are well known to foreign countries and can export them, so that investors will have more confidence and commitment to the area.

Keywords. economic growth; investment; community welfare

Article History. Received July, 2022. Revised October, 2022. Accepted December, 2022

Corresponding Author. nurlaela2315@gmail.com

INTRODUCTION

Economic development is an effort to increase real income per capita in the long term and is followed by improvement of the institutional system. Development has a goal to create community welfare. The welfare of the community can be seen from the increase in economic growth and the even distribution of income (Arsyad, 2010:11). The geographical condition of Indonesia, which is an archipelagic country, is one of the obstacles in implementing equitable development in each region.

Regional autonomy is one of the means to create better development. Through this policy, economic growth and people's welfare will be improved. Local governments will be more efficient in managing the resources available in each region and providing public goods to facilitate economic activities (Oates, 1993).

According to Schumpeter in Boediono (2012:48) economic growth is defined as an increase in community output caused by more and more production factors used in the production process without any changes in the technological methods themselves. Economic growth indicators do not only measure the level of output growth in an economy, but provide an indication of the extent to which economic activity that occurred in a certain period has generated income for the community. The problem of labor absorption shows that the higher the unemployment rate, the higher the poverty, crime, and socio-economic phenomena in society. Labor absorption, namely the number of people working in various sectors, the number and composition of the workforce will continuously experience changes. along with changing demographics. The number of workers by employment is a measure to see and know the potential of which economic sector contributes the most to employment and reflects the structure of the economy in a region.

The development of a region is indicated by the rate of economic growth in the region, therefore all regions set a target for a high rate of economic growth as one of their regional development goals. Economic growth can be interpreted as the development of activities in the economy which causes the goods and services produced in the community to increase and the prosperity of the community to increase. According to Sukirno (2007), human development is expected to increase economic growth which in turn has an impact on improving people's welfare.

Investment is one of the important things for economic growth. Investment can be used as a tool to restore the economy, create jobs, and reduce poverty. The purpose of the investment is to expand the business. According to Sukirno (2004), Foreign Investment is still used to support development in various activities.

According to Todaro (2000), investment plays an important role in capital formation, increasing production capacity, increasing national income and creating jobs to expand job opportunities. Meanwhile, according to Mankiw (2003) that technological innovation is one of the factors that can increase investment demand. And according to Sukirno (2008:122), investment is business capital expenditure to buy goods and equipment to increase the ability to produce goods and services. Thus developing the understanding that investment is a human effort in utilizing their savings to open new businesses and create jobs to operate businesses so as to generate income for all parties, namely the entrepreneur and the employees.

Investment according to research (Achdyah Prabawati: 2021) Investments made will add new jobs. With investment, it will generate income, which results in an increase in welfare. Because with the termination of employment that has befallen him, he earns income to meet his needs. With the changing economy resulting in a shift in the level of the economy for the people of the City of Jember. By adding new jobs in the Jember city community so that unemployment is reduced due to the absorption of labor.

Absorption of labor is one of the supporters of economic development carried out by developing countries and has the aim, among others, to create equitable economic development. Development within the scope of the region in addition to increasing GRDP and the rate of regional economic growth, also needs to pay attention to human development. According to Santika (2014) the level of human development can affect the ability of the population to manage various resources to encourage economic growth.

In general, welfare theory can be classified into three types, namely classical utilitarian, neoclassical welfare theory and new contractarian approach (Albert and Hahnel, in Sugiarto 2007):

- a. The classical utilitarian approach emphasizes that a person's pleasure or satisfaction can be measured and increased. The principle for individuals is to increase as much as possible their level of welfare, while for the community, increasing the welfare of their groups is a principle that is held in their lives.
- b. The neoclassical welfare theory approach explains that the welfare function is a function of all individual satisfaction.
- c. The new contractarian approach that raises the maximum freedom in the life of an individual or a person. The thing that is most emphasized in this new contractarian approach is that individuals will maximize their freedom to pursue their concepts of goods and services without any interference.

In line with the Act. 11 of 2009, social welfare is a condition of meeting the material, spiritual, and social needs of citizens in order to live properly and be able to develop

themselves, so that they can carry out their social functions. So, welfare is a state of fulfillment of needs both in terms of social and economic. In addition, social welfare is also described by the United Nations (UN) Social Welfare is an organized activity that aims to help individuals and communities to meet their basic needs and improve welfare in line with the interests of families and society. In this case, it shows activities organized by both government and private institutions that aim to prevent, overcome or contribute to solving social problems, improving the quality of life of individuals, groups and communities (Nurul Husna, 2014:47).

Paul Hogget (Fritzpatrick, 2002), provides three dimensions towards a social welfare society or what is called a "good society":

1. Welfare Consumerism

Community well-being is determined and measured by people's ability to obtain quantity and variety of material goods and social services. All things are calculated with the concept of money so that the available social goods and services are sold and can be bought by the community

2. Welfare Statistics

The well-being of the community is determined or measured by the availability of goods and services that are sufficient to meet basic needs without a variety of choices. All goods and services can only be obtained by those who are entitled.

3. Ecowelfarism

Community welfare (well being) is determined and measured by the ability of the community to provide opportunities to meet their own needs with their own strengths. Meeting the needs of the community or citizens must be in accordance with the carrying capacity of their environment.

Previous research according to I Komang Oka Artana Yasa: 2015 income disparity between regions in Bali Province in 2001-2012 decreased with an average value of 0.29, meaning that the level of disparity was low. Economic growth has a negative and significant effect on income disparities between regions, but has a positive and significant effect on people's welfare. The conclusion is that economic growth in Bali Province affects the level of community welfare. Because the increasing economic growth in Bali is caused by several factors, one of which is the tourism of the Bali Province which is famous abroad so that it also helps the marketing of products made by the people of the Province of Bali, including many craftsmen or MSMEs minicraft.

The essence of the above background, that the author aims to research to find out more about economic growth and investment and their influence on the welfare of the people in Central Java Province.

METHOD

In this study, the population is all secondary data of research variables related to the effect of economic growth and investment simultaneously and partially on the welfare of the people in Central Java Province. Secondary data were obtained from Indonesian statistical center, Central Java Provincial Statistics Center and Central Java Province Agency for Regional Development. The sample year used is from 2011 to 2020. The sampling technique uses non-probability sampling, taking into account the availability of data and in 2011, the number of samples used in this study was 29 districts, 6 cities x 10 years = 350 panel data sample. The analysis method uses quantitative analysis with panel data. The

research design will be carried out using descriptive studies or hypothesis testing studies as independent variables (economic growth and investment). In this case, community welfare is the dependent variable in this study. Based on the theory, the relationship between independent variables that affect people's welfare is a schematic flowchart of the research framework, as shown in Figure 1.

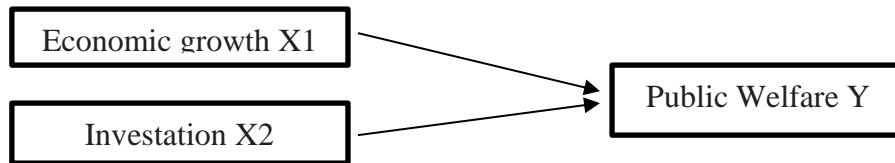


Figure 1. Research flow chart

RESULTS AND DISCUSSION

Regression Equation

The following is a table for calculating the Chow and Hausman tests, the table serves to select the right method/method to calculate economic growth and investment (as independent variables) and community welfare (dependent variable). The following is the Chow and Hausman test table:

Table 1
Chow Test Results Where Community Welfare as Dependent Variable

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.292086	(3,58)	0.0268
Cross-section Chi-square	10.063572	3	0.0180

Based on table 1 above, the probability value of cross-section F is $0.026 < 0.05$ and cross-section Chi-square is $0.018 < 0.05$ (the probability value of cross-section F and cross-section is less than 0.005) so that H_0 is rejected and H_a is accepted, meaning that the regression model chosen is the Fixed Effect Model (FEM) and continues with the Hausmen test.

Table 2
Hausman Test Results Where Community Welfare as an Independent Variable

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.883627	2	0.0434

Based on table 2 above, the probability value of the random period is $0.04 < 0.05$ (the probability value of the random period is less than 0.05) so that H_0 is rejected and H_a is accepted, meaning that the Random Effect Model regression model cannot be accepted, and used is Fixed Effect Model (FEM).

Based on the Chow and Hausman tests, the p-value of the random cross-section was $0.00 < 0.05$, the best model for the first equation structure chosen was the Fixed Effect Model (FEM), namely:

Table 3
Fixed Effect Model (FEM) Test Results

Dependent Variable: Y				
Method: Panel Least Squares				
Date: 09/22/22 Time: 10:32				
Sample: 2013 2020				
Periods included: 7				
Cross-sections included: 4				
Total panel (unbalanced) observations: 20				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	0.186337	0.746980	0.249454	0.0166
X2	0.419386	0.802594	0.522539	0.0495
C	2.635370	4.546084	0.579701	0.0513
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.884049	Mean dependent var	4.145500	
Adjusted R-squared	0.899781	S.D. dependent var	1.169289	
S.E. of regression	0.978450	Akaike info criterion	3.037631	
Sum squared resid	13.40310	Schwarz criterion	3.336351	
Log likelihood	-24.37631	Hannan-Quinn criter.	3.095944	
F-statistic	2.626877	Durbin-Watson stat	2.057146	
Prob(F-statistic)	0.070686			

The Adjusted R-square value is 0.89, indicating the ability of the independent variables (economic growth and investment) to explain the variable of community welfare by 89%. In comparison, another 11% is influenced by other variables. The X1 regression coefficient of 0.01 specifically states that in the *ceteris-paribus* condition, when economic growth increases by 1%, the average community welfare also increases by 0.01%. The X2 regression coefficient of 0.04 specifically states that under *ceteris-paribus* conditions, when the investment rate increases by 1%, the average welfare will increase by 0.04%. The equation above is BLUE (Best, Linear, Unbiased, Estimated). Based on the Chow and Hausman tests, the p-values of the random cross section were $0.00 < 0.05$, the best model for the second equation structure chosen was the Fixed Effect Model (FEM).

This equation is already BLUE (Best, Linear, Unbiased, Estimated). The Adjusted R-square value is 0.89, indicating the ability of the independent variable (human welfare) to explain the dependent variable (economic growth) of 89%, while the other 11% is influenced by other variables. The X1 regression coefficient of 0.186 specifically states that in the *ceteris-paribus* condition, if the welfare of the community increases by 1%, the average economic growth will increase by 1.86%.

Hypothesis Test Results

Based on the results of research on the two regression equations above, the results are: (1) Economic growth and investment simultaneously proved to have a significant effect on the welfare of society; (2) Partially, economic growth has been proven to have a significant effect on people's welfare. However, several studies show that Economic Growth has a significant effect on Human Welfare with a positive relationship direction; (3) Investment is proven to have a significant and negative effect on Human Welfare. The same thing was found in research

CONCLUSION

Based on the discussion above, it can be concluded that 1) Economic Growth and Investment simultaneously have a significant effect on Human Welfare, this shows that these two variables need to be considered by local governments. 2) Economic growth has been partially proven to have a significant effect on Community Welfare, by helping to increase production and marketing of products in the area, it will help the economy in an area or city. 3) Investment partially proved to have a significant effect on the welfare of the community, with many investors entering the province of Central Java to help the regional economy, with investment to help build factories or public companies.

REFERENCES

- Achadiya Prapabati. (2021). Pengaruh Investasi, Tenaga Kerja Dan Kesejahteraan Terhadap Pertumbuhan Ekonomi Era Pandemi Covid-19 di Kota Jember. *Majalah Ilmiah "Dian Ilmu"* Vol.20 No.2 April 2021 130. Issn Cetak: 0853-2516 ISSN Online: 2620-7451.
- Aditya, Santika Amesti. (2014). Analisis faktor-faktor Yang Mempengaruhi Kualitas Informasi Akuntansi Pada RSUD Ungaran. *Jurnal Akuntansi*. Universitas Dian Nuswantoro Semarang.
- Arsyad, Lincolin. (2010). *Ekonomi Pembangunan*. Yogyakarta: UPP STIM YKPN
- Awandari, Luh Putu Putri & I Gst Bgs Indrajaya. 2016. "*Pengaruh Infrastruktur, Investasi, Dan Pertumbuhan Ekonomi Terhadap Kesejahteraan Masyarakat Melalui Kesempatan Kerja*". *E-Jurnal Ekonomi Pembangunan Universitas Udayana*. Vol 5 No 12. Hal, 1444.
- Boediono. (2012). *Ekonomi Internasional*. Yogyakarta : BpFE
- Ghozali, I. (2013). *Analisis Multivariat dan Ekonometrika : Teori, Konsep, dan Aplikasi dengan EVIEWS 8*. Badan Penerbit Universitas Diponegoro, Semarang.
- I Komang O. A & Yasa S. A. *Jurnal Ekonomi Kuantitatif Terapan* vol 8, No 1, Februari. (2015). Pengaruh Pertumbuhan Ekonomi dan Disparitas Pendapatan Antar daerah Terhadap Kesejahteraan Masyarakat Provinsi Bali.
- Mankiw N. Gregory. (2000). *Teori Makro Ekonomi*. Jakarta: Penerbit Erlangga.
- Mankiw, N. Gregory. (2003). *Teori Makroekonomi*, Edisi Kelima, Erlangga, Jakarta

- Oates, W. (1993). *Fiscal Decentralization and Economic Development*, *National Tax Journal*, XLVI. 237-243.
- R.I, Departemen Sosial Republik Indonesia Direktorat Jenderal Pelayanan Dan Rehabilitasi Sosial Balai Besar Rehabilitasi Sosial Bina Daksa “Prof. Dr. Soeharso” Surakarta (R.C.-Solo). (2004). Surakarta: Seksi Advokasi Balai Besar Rehabilitasi Sosial Bina Daksa (BBRSBD) Prof. Dr. Soeharso Surakarta.
- Sukirno, Sadono (2004). *Makroekonomi : Teori Pengantar*. Jakarta : PT Raja Grafindo Persada.
- Sukirno, Sadono. (2007). *Makro ekonomi Modern*. Jakarta : PT Raja Grafindo Persada.
- Sadono Sukirno. (2008). *Mikro ekonomi: Teori Pengantar*. Edisi Ketiga. Jakarta: PT Raja Grafindo Persada
- Sugiarto, dkk. (2007). *Ekonomi Mikro (sebuah kajian komprehensif)*. Jakarta: Gramedia Pustaka Utama
- Todaro. M. P. (2003). *Pembangunan Ekonomi di Dunia Ketiga*, Edisi Ke Delapan Jakarta: Erlangga.
- Todaro P. Michael. (2000). *Pembangunan Ekonomi Dunia Ketiga Jilid I*, Jakarta Penerbit : Erlangga.