THE EFFECTS OF GRDP AND FOREIGN DIRECT INVESTMENTS ON REGIONAL INEQUALITY IN EASTERN INDONESIA

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ABSTRACT

Equity is the goal of the process of economic development. Equity in economic development can be seen from the decline in regional inequality. Regional inequality in Eastern Indonesia is quite high and has increased every year. Regional inequality can be calculated from the Williamson index. This research aims to determine the effects of GRDP and foreign direct investment on regional inequality in Eastern Indonesia period 2010- 2017. This research used pooled data from 12 Provinces in Eastern Indonesia period 2010- 2017 with a fixed-effects model. The results are GRDP has negative and significant on regional inequality, and foreign direct investment has positive and significant on regional inequality.

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INTRODUCTION

Economic development is a process of increase in real income per capita in the long run, on the condition that the absolute poverty line does not rise and no unequal distribution of income (Gemmel, 1992, p.195). Economic development is a process of improvement of material well-being in the long term and continuous and smooth distribution of goods and services (Jhingan, 2010a, p.7). Economic development aims in the context of public welfare. Welfare in development can be assessed and measured by economic and non-economic approaches. The economic approach is the size of the increase in national income. The increase in national income if accompanied by rapid population growth is not included in economic development. Economic growth in this case the regional Gross Domestic Product (GDP) could be a reference in the development process of a country. Economic conditions in a country or region can be seen from the GDP region located in the country. Economic development is usually followed by high economic growth. The high economic growth must be accompanied by equitable distribution so that no imbalance in development.

Inequality is a problem that commonly occurs in the economic development process. In Indonesia, the development gaps may be an imbalance of development outcomes such as income per capita as well as in development activities such as capital and labor mobility. Regional inequality can be interpreted as a form of income inequality between regions and communities in the form of income distribution among the population of each region (Dumairy, 1996a, p.59). Inequality between regions can be identified by reviewing the differences of various aspects such as the allocation of funds banking, employment, investment, and growth.

Eastern Indonesia is a region with an abundant natural endowment. The natural resources found in Eastern Indonesia encompass not only natural beauty but also other assets such as mining, gold, natural gas, petroleum, and others. With abundant natural resources, development in Eastern Indonesia can grow if it can be optimized. Then, the economic growth in Eastern Indonesia each year has increased which is expected to encourage equitable development in eastern Indonesia. It is also consistent with the goals of the government that in the context of equitable development, then the development should focus on Eastern Indonesia (Paath, 2017).

Development focused in Eastern Indonesia is the mission of the government. That is because according to data from the central statistics that until September 2017 poverty rate based on the island is still concentrated in Eastern Indonesia that is Maluku and Papua by 21.23% (Kusuma, 2018). It shows that the overall equalization has not spread which contributes to the high inequality in the region of Eastern Indonesia. It can also be seen from the Williamson index.

Williamson Index data indicate that inequality in Eastern Indonesia is still remarkably high starting from East Nusa Tenggara with the highest index of 0.66. Next South Sulawesi with an index number of 0.61, Central Sulawesi with an index number of 0.59, West Nusa Tenggara 0.58, West Papua 0.48, and North Sulawesi 0.40. Based on

the data above, inequity is a serious development problem that can hinder equitable development.

make Indonesia has the potential to receive greater investment flows. Its high investment in Indonesia

Table 1. Williamson Index of Eastern Indonesia 2010-2017

No.	Province	Period							
		2010	2011	2012	2013	2014	2015	2016	2017
1	Bali	0.45	0.46	0.45	0.26	0.26	0.25	0.25	0.25
2	Nusa Tenggara Barat	0.82	0.87	0.89	0.88	0.80	0.65	0.60	0.58
3	Nusa Tenggara Timur	0.61	0.63	0.63	0.64	0.65	0.65	0.65	0.66
4	Sulawesi Utara	0.37	0.38	0.38	0.39	0.39	0.39	0.39	0.40
5	Gorontalo	0.18	0.18	0.17	0.16	0.16	0.15	0.15	0.15
6	Sulawesi Barat	0.29	0.30	0.32	0.34	0.38	0.38	0.37	0.36
7	Sulawesi Tengah	0.38	0.37	0.38	0.38	0.35	0.51	0.55	0.59
8	Sulawesi Selatan	0.62	0.62	0.62	0.61	0.61	0.61	0.61	0.61
9	Sulawesi Tenggara	0.35	0.37	0.39	0.47	0.51	0.52	0.41	0.42
10	Maluku	0.31	0.30	0.30	0.29	0.28	0.27	0.26	0.25
11	Maluku Utara	0.26	0.27	0.27	0.27	0.26	0.26	0.27	0.27
12	Papua Barat	0.58	0.57	0.55	0.53	0.52	0.51	0.49	0.48

Source: Data Processed

GRDP for Eastern Indonesia in 2017 has increased compared to the previous year. The GRDP is one indicator to see the economy in a region. Increasing the GDP in Eastern Indonesia Region shows that the Eastern Indonesia economy in 2017 grew from the previous year. It can be seen from Table 2 that the GDP in 2017 increased compared to 2016.

GRDP for Eastern Indonesia in 2017 has increased compared to the previous year. The GDP is one indicator to see the economy in a region. Increasing the GDP in Eastern Indonesia Region shows that the Eastern Indonesia economy in 2017 grew from the previous year.

Investment in Indonesia in 2017 both foreign and domestic investment increased from the previous year. Based on data from BKPM that in 2017 the realization of foreign investment grew by 10.6% while the domestic investment grew by 16.4% (BKPM RI, 2018). The growth of investment in Indonesia

Table 2. GRDP at 2010 Constant Market Price in Eastern Indonesia Period 2016- 2017

No.	Province	The GRDP (Billion Rupiah)	
		2016	2017
1	Bali	137,192.52	144,964.20
2	Nusa Tenggara Barat	94.538	94.645
3	Nusa Tenggara Timur	59.705	62.788
4	Sulawesi Utara	74.771	79.495
5	Gorontalo	23.508	25.093
6	Sulawesi Barat	27.525	29.362
7	Sulawesi Tengah	91.053	97.552
8	Sulawesi Selatan	269.423	288.909
9	Sulawesi Tenggara	77.748	83.038
10	Maluku	26.284	27.812
11	Maluku Utara	21.557	23.211
12	Papua Barat	54.711	56.907

can push the development process in this case the equalization region.

From the description of the above problems, this study focused to see why the inequality region in Eastern Indonesia is still high in addition to the GDP and the prominent level of investment.

LITERATURE REVIEW

Based on backwash theory proposed by Professor Gunnar

Myrdal in 1957 (Jhingan, 2010c, p.211). This theory explains that the process of economic development that raises causal impact on the profit gap between rich and underdeveloped. According to Myrdal, imbalance occurs due to the impact area greater than the impact spread. Inequality region is closely related to the capitalist system that prioritizes profit motive. According to Kuznets (Arsyad, 2010a, p.292), the inverted U theory explains that in the initial stage's development of a country, unequal income distribution, and will improve in the next stage. Kuznets's hypothesis explains the economic growth with inequality. High economic growth will lead to inequality, it is because of the advancement of technology, investment, and workforce, but at a more advanced stage of inequality will decrease.

Balanced growth theory was proposed by Rosenstein-Rodan (Easterly, 2002) in 1943. According to the theory of balanced growth, investment in the development process must be distributed simultaneously in all sectors or industries. The process of economic development is inseparable from the vicious circle of poverty that would hinder development. The vicious circle can be overcome with investments and their use in a variety of sectors that will expand the market.

Economic development according to the neo-classical influenced by the accumulation of capital is the development activity that gradual process (Arsyad, 2010b, p.61). In economic development also required the international aspect. According to neo-classical, interest rates and income level determine the level of savings. The interest rate also determines the high level of investment.

The structural theory proposed by Karl Marx and Engels (Budiman, 1995a, p.44), According to Marx and Engels, the progress of less developed countries to follow the developed countries. According to Marx, the touch of the advanced capitalist countries in the less developed countries will build the underdeveloped countries to develop. The theory explains that technological progress in all areas will have an impact on increasingly sophisticated production techniques. In addition to the production technology, the next technological developments include increasingly sophisticated communications that will connect the developed countries to underdeveloped countries.

Dependency theory proposed by Frank (Budiman, 1995b, P.64) that foreign capital from the state metropolis will only lead to backwardness. According to Frank, the inflow of foreign capital in the satellite countries would only benefit the party of the bourgeoisie. Dependency theory proposed by Dos Santos Theotonio suggests that when the country in terms of developing the country metropolis satellite states or countries will also be developing periphery. Relations with the metropolis do not always have a negative impact on the satellite countries.

According to the theory of the middle way that foreign investment by multinational companies can be in moving and turn the engine of global growth. Multinational companies can provide benefits to the local economy through capital flows, technology transfer, and open new jobs as well as creating opportunities to improve export earnings (Sornarajah, 1995).

Hypotheses

1. There is a negative effect on the imbalance between the GDP in the region of Eastern Indonesia.
2. There is a negative effect of foreign directs investment on the regional inequality in Eastern Indonesia.

METHODOLOGY

This research method using a quantitative study using multiple regression analysis. This study uses regression analysis to examine the effect of two independent variables are the GDP and foreign investment on the dependent variable, namely inequality in the region of Eastern Indonesia. The analysis technique using pool data regression and Williamson index.

FINDINGS AND DISCUSSION

FINDINGS

1. Testing Regression Model

This study uses a model of fixed effects that were identified after testing the chow test and Hausman test. Based on the test results of test chow, the probability value of 0.0000 is smaller than 0.05, and the F statistic of 58.732493 is greater than the F table at 3:09. While Hausman test based on test results showed that the probability of 0.0410 is less than 0.05 and a value of 6.388282 chi-square statistic is greater than the chi-square table for 5991. Thus, this study using the fixed effects regression model.

2. Classic assumption test

a. Normality

Normality test to determine whether the residual normal distribution of data or not. Based on test results that the value of the Jarque-fallow probability of 0.564887 is greater than 0.05. Thus, the data in this study are normally distributed.

b. Multicollinearity

Multicollinearity test to see if there is a correlation between the two variables. Multicollinearity problem occurs if a correlation coefficient is greater than 0.7 and if the correlation coefficient is less than 0.7 then there are no multicollinearity problems. Based on test results that there are no

Table 3. Multicollinearity

	GRDP	FDI
GRDP	1.000000	0.402675
FDI	0.402675	1.000000

Table 4. Specifications Fixed Effects

Dependent variable	variables	*coefficient*	T-Statistic	prob
Regional inequality	constants	0.490947	16.38153	0.0000
	GRDP	-1.21	-2.623865	0.0104
	FDI	8.96	2.7655278	0.0070

multicollinearity problems.

3. Regression Analysis

The regression equation in this study are as follows:

$$Yit = 0.490947 - 1.21 + 8.96 + 0$$

The constant of 0.490947 means X1 (GRDP) and X2 (FDI) is 0 then the magnitude of Y (Regional Inequality) is worth 0.490947. The regression coefficient X1 (GRDP) amounted to -1.21 means GRDP significant negative effect on regional inequality. It shows that the increase in the GRDP amounted to 1 billion will reduce the regional inequality by 1.21 percent. Coefficient X2 (FDI) of 8.96 means that FDI has a significant positive

effect on regional inequality. It shows that the increase in inequality in FDI by one thousand dollars will increase regional inequality by 8.96 percent.

4. Hypothesis testing

Based on the t-test that the value t-count the GRDP amounted to -2624 (minus omitted) is greater than t-table is 1.9858 (2624> 1.9858) 0.0104 probability value less than 0.05, meaning that partially GRDP has a significant effect on regional inequality. t-count value of FDI amounted to 2.7655 is greater than t table amounted to 1.9858 (2.7655> 1.9858) 0.0070 probability value less than 0.05, meaning partial FDI has a significant effect on regional inequality.

Based on test results obtained from the regression model adjusted R-squared of 0.8941. The test results showed that the adjusted R-squared value close to one, meaning that the independent variables can explain variations in the dependent variable. It shows that 89.41% of the regional inequality is affected by the independent variable while the 10:59% is influenced by other variables.

DISCUSSION
1. The GRDP on the Regional Disparities

The results support the hypotheses that the GRDP has a negative effect on regional inequality. The coefficient value of the GRDP variable on the regional inequality variable is -1.21. In addition, the probability value of the variable the GRDP amounted to 0.0104 less than 0.05. It shows that

the GRDP significant negative effect on regional inequality.

Rising economic growth is illustrated by the GRDP will encourage high economic activity in a region. The high economic activity will push a region to grow and develop to encourage capital inflows into the region. The growth and development of a region will decrease the inequality of the region.

2. FDI on Regional Disparities

The results showed that the inequality of FDI has a positive effect on regional inequality. The coefficient value of the FDI variable on the Regional Inequality variable is 8.96. In addition, the probability value of the variable in FDI by 0.0070 is less than 0.05. It shows that the inequality of FDI has a significant positive effect on the inequality of the region.

FDI inflows were concentrated in the areas of economic development center will further widen the gap of inequality. The concentration of capital in a particular region is driven by the profit motive so that capital flows are just spinning in a region with high economic activity. It shows that the high FDI for Eastern Indonesia is not distributed evenly and is concentrated in certain areas.

CONCLUSION

Based on research conducted with panel data analysis, it can be concluded as follows: 1). GRDP has a significant negative effect on inequality in the region of Eastern Indonesia. It shows that the increase in the GDP may decrease inequality in the region of Eastern Indonesia, 2). FDI has a positive and significant effect on inequality

in the region of Eastern Indonesia. It shows that the increase in inequality of FDI may increase inequality in Eastern Indonesia. Based on the results obtained, the suggestions can be submitted by researchers as follows: 1). Governments must work together with businesses to increase the GDP, as well as cooperating to reduce inequality one of which is to facilitate the business license for the businesses that will create jobs, 2). Governments must increase FDI into Eastern Indonesia, but reducing inequality, FDI should be distributed evenly to the entire region. FDI should be distributed to the business sector to absorb labor, so it will decrease inequality.

REFERENCES

Ariefianto, D. (2012). EKONOMETRIKA: esensi dan aplikasi dengan menggunakan Eviews. (Novitha I. Sallama, Ed.). Jakarta: Erlangga.

Arsyad, L. (2010). Ekonomi Pembangunan. Yogyakarta: STIM YKPN Yogyakarta.

Bhinadi, A. (1997). Ekonomi pembangunan. Jurnal Ekonomi Pembangunan, 8, 39–48. https://doi.org/http://dx.doi.org/10.1111/petr.12043

BI. (2015). Produk Domestik Regional Bruto. Metadata, 85–88. Retrieved from www.bi.go.id

BKPM RI. (2018). Realisasi PMDN dan PMA Tahun 2017 Melampaui Target. Depkes. Retrieved from depkes.go.id

Boediono. (1988). Teori Pertumbuhan Ekonomi. Yogyakarta: BPFE.

BPS. (1990). Pedoman Praktis Perhitungan PDRB Kabupaten/Kota (pp. 978–979).

Budiman, A. (1995). Teori Pembangunan Dunia Ketiga. Jakarta: PT Gramedia Pustaka Utama.

Dhyatmika, K. W., & Atmanti, H. D. (2013). Analisis Ketimpangan Pembangunan Provinsi Banten Pasca Pemekaran. Diponegoro Journal of Economics, 2, 1–8.

Dumairy. (1996). Perekonomian Indonesia. Jakarta: Erlangga.

Easterly, W. (2002). The Elusive Quest for Growth, 7(2), 181–186.

Emilia, & Imilia. (2006). Modul Ekonomi Regional. Jambi: Jurusan Ilmu Ekonomi Universitas Jambi.

Firdaus, M. (2013). Ketimpangan Pembangunan Antar Wilayah di Indonesia: Fakta dan Strategi Inisiatif. Ekonomi Dan Manajemen, 7.

Gemmel, N. (1992). Ilmu Ekonomi Pembangunan Beberapa Survei. (Nirwono, Ed.). Jakarta: Pustaka LP3S.

Hasan, F., & Ikhsanudin. (2001). Disparitas Ekonomi antar Kecamatan di Kabupaten Bangkalan, 1–9.

Hill, H. (1990). Investasi Asing dan Industrialisasi di Indonesia. Jakarta: LP3ES.

Irawan, & Suparmoko. (1983). Ekonomi Pembangunan. Yogyakarta: BPFE.

Jhingan, M. . (2010). Ekonomi Pembangunan dan Perencanaan. Jakarta: PT RajaGrafindo Persada.

Kusuma, H. (2018). BPS: Kemiskinan Masih Terpusat di Indonesia Timur. Detikfinance. Retrieved from finance.detik.com

Nistor, P. (2012). FDI and Regional Disparities Growth in Romania. Procedia - Social and Behavioral Sciences, 3(12), 740–745. https://doi.org/10.1016/S2212-5671(12)00223-7

Paath, C. K. (2017). Pemerataan Pembangunan di Kawasan Indonesia Bagian Timur Perlu di Perhatikan. Beritasatu. Retrieved from beritasatu.com

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Pasaribu, R. B. F. (2010). Investasi dan Penanaman Modal. *Investasi Dan Penanaman Modal*, (36), 235–278.

Rosmeli. (2015). Dampak Investasi dan Tenaga Kerja terhadap Ketimpangan Pembangunan Kawasan Timur Indonesia. *Jurnal Paradigma Ekonomika*, *10*(2), 362–369.

Samsudin, A. (2010). *Statistika nonparametrik*. Bandung: Universitas Pendidikan Indonesia.

Saputra, D. (2004). Analisis Pertumbuhan dan Tingkat Ketimpangan antar Kabupaten/kota di Provinsi Jawa Barat, (25), 1–18.

Sornarajah. (1995). *The International Law on Foreign Investment*. Cambridge University Press.

Suyatno. (2003). Hutang Luar Neegeri, PMA, Ekspor, dan Peranannya terhadap Pertumbuhan Ekonomi Indonesia Tahun 1975- 2000. *Ekonomi Pembangunan Universitas Muhammadiyah Surakarta*, *4*, 70–79.

Suyuthi, D. (1989). *Pengantar Ekonomi Makro*. Jakarta: P2LPTK.

Tafenau, E., & Paas, T. (2014). Regional inequality and economic growth : interactions of the relationship with the level of economic development and speed of growth Regional inequality and economic growth : interactions of the relationship with the level of economic development and spe.

Todaro, M., & Smith, S. (2006). *Pembangunan Ekonomi*. Jakarta: Erlangga.

Trijono, R. (2015). *Metodologi Penelitian Kuantitatif*. Depok: Papas Sinar Sinanti.

Tsalitsa, A. (2016). Faktor- Faktor Mempengaruhi Ketimpangan Wilayah di Provinsi Jawa Timur,

Indonesia. *Media Ekonomi Dan Manajemen*, *31*(1), 1–13. https://doi.org/Media Ekonomi dan Manajemen

Yuliani, T. (2015). Pertumbuhan Ekonomi dan Ketimpangan Pendapatan antar Kabupaten di Kalimantan Timur. *Journal of Economics and Policy*, *8*(1), 46–53. https://doi.org/10.15294/jejak.v7i1.Journal

Yusica, L. V., Malik, N., & Arifin, Z. (2018). Analisis Pengaruh Pertumbuhan Ekonomi, Aglomerasi, dan Tingkat Pengangguran terhadap Ketimpangan antar Wilayah Kabupaten/Kota di Provinsi Kalimantan Timur. *Jurnal Ilmu Ekonomi*, *2*, 230–240.