The effect of employment, economic growth, and investment on HDI: In provinces in Indonesia

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A B S T R A C T

This study aims to analyze the effect of Number of Working People (Employment), Economic Growth Rate (EGR), and Investment on Human Development Index (HDI) in Indonesia, partially and simultaneously. This study used investments consisting of Domestic Investment (DI) and Foreign Direct Investment (FDI). It used the method of Pooled Data Regression Analysis with the data from thirty-three provinces in Indonesia from 2006 to 2013. The results indicate that the employment variables have positive and significant impact to HDI in Indonesia. It shows that EGR does not affect HDI in Indonesia. However, Domestic and foreign direct investments partially have positive and significant effect on HDI in Indonesia. Simultaneously, the variables employment, EGR, domestic and foreign direct investments have a significant effect on the HDI in Indonesia.

A B S T R A K

Penelitian ini bertujuan menganalisis bagaimana dan seberapa besar pengaruh jumlah orang bekerja (Employment), Laju Pertumbuhan Ekonomi (LPE), dan Investasi terhadap Indeks Pembangunan Manusia (IPM) di Indonesia, secara parsial dan serentak. Investasi yang digunakan dalam penelitian ini terdiri dari Penanaman Modal Dalam Negeri (PMDN) dan Penanaman Modal Asing (PMA). Metode analisis dalam penelitian ini adalah Analisis Regresi Panel Data (Pooled Data Regression Analysis) dengan menggunakan data dari tiga puluh tiga provinsi di Indonesia dari tahun 2006 sampai dengan 2013. Hasil penelitian ini menunjukkan bahwa variabel Employment berpengaruh positif dan signifikan terhadap IPM di Indonesia. LPE tidak berpengaruh terhadap IPM Indonesia. Sedangkan PMDN dan PMA secara parsial berpengaruh signifikan positif terhadap IPM di Indonesia. Secara bersama-sama, variabel employment, LPE, PMDN dan PMA berpengaruh signifikan terhadap IPM di Indonesia.

1. INTRODUCTION

The Indonesian economy capability is expected to absorb the labor force as much as possible so as to be a solution for the problem of unemployment in Indonesia. The number of working people (employment) are likely be the solution for labor force growth. Indonesia used the concept of open unemployment, which highlights the difference in labor force with the amount of work. Therefore, with increasing numbers of employment, Indonesia can fix the existing unemployment problem every year and improve income levels. The development of employment in Indonesia from year 2006 – 2013 is shown in Figure 1.

The employed people will receive wage as a remuneration of services granted to the company. Then, the labor income is used to finance their needs. Improvement of the level of wages that always happens every year through the Provincial Minimum Wage (UMP) is expected by the government to improve the income level of workers, which is ultimately expected to be able to make the workers and their family members acquire a better level of education and health. However, in reality, UMP given by the company to its workers is still not able to cover all the proper daily needs of an employee, even the unmarried ones.

The need of investment for an economy is inevitable, because by investment the country can build infrastructure that can support the economy

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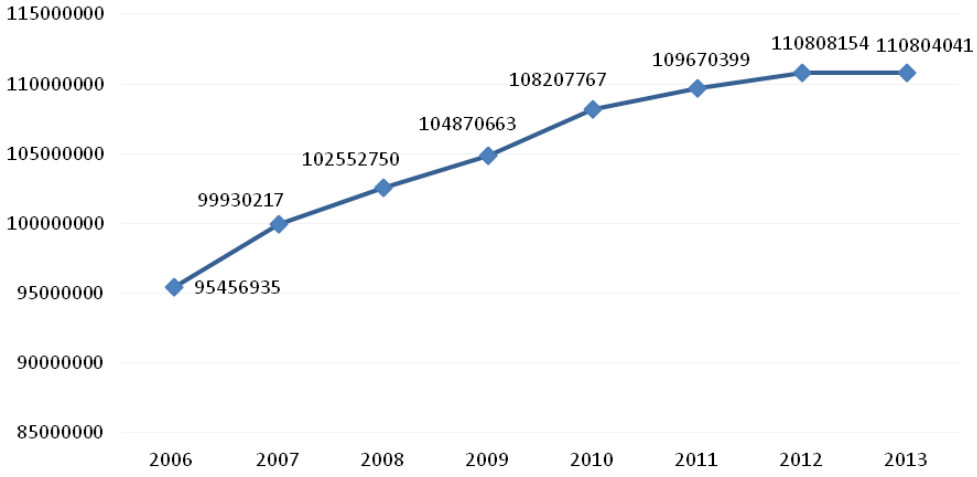

Figure 1
The Development of Employment in Indonesia Year 2006-2013

Source: Central Bureau of Statistics, 2007-2014.

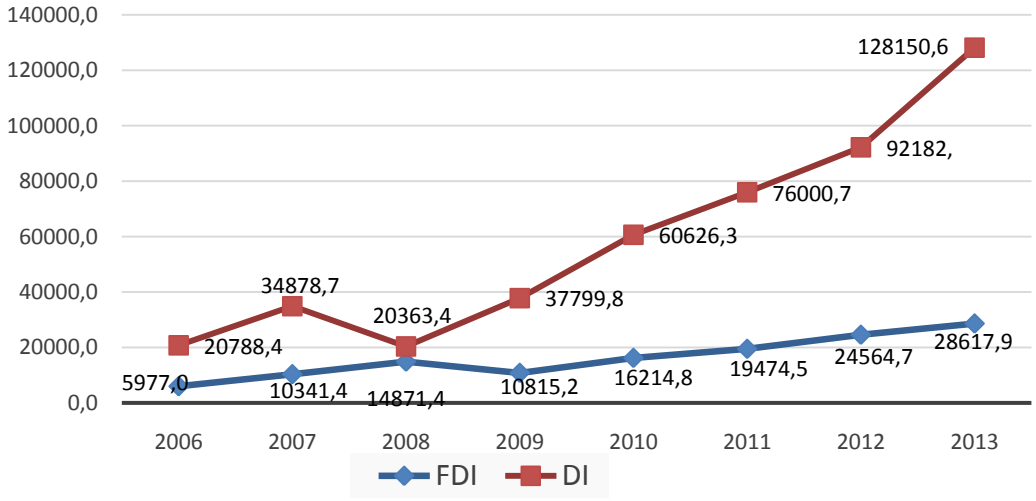

Figure 2
The Development of FDI (Million $ USA) and DI (Billion Rupiah) in Indonesia Year 2006-2013

Source: Central Bureau of Statistics, 2007-2014.

realization. In addition, the development of domestic and foreign investment in Indonesia is increasing every year. Domestic Investment (DI) has a very important role in development in Indonesia given the DI comes from national capability.

As a component forming national income, investments (domestic and foreign) are expected to bolster HDI in Indonesia through a better national income over time. Development of investment from the year 2006-2013 indicates that the number of domestic investment is still greater than foreign investment (see Figure 2). This indicates that Indonesia still relies on domestic investments compared to foreign investment in economic development.

The Indonesia's economic growth rate from the year 2006-2013 showed a good condition (see Figure 3). Indonesia's economic growth rate always reaches a positive value to the lowest figure of 4.77 per cent and 6.35 per cent in the highest level. The lowest economic growth rate of 4.77 percent occurred when Indonesia and the world were affected by the economic crisis. In that year, many countries economic growth rate of fell dramatically, some countries even hit the level of negative numbers, but Indonesia was still able to achieve positive economic growth rate.

A positive economic growth rate is expected to increase the improvement of people's income, both in general through the income per capita, or specifically for people who work (employment) through the Provincial Minimum Wage (UMP). Workers'

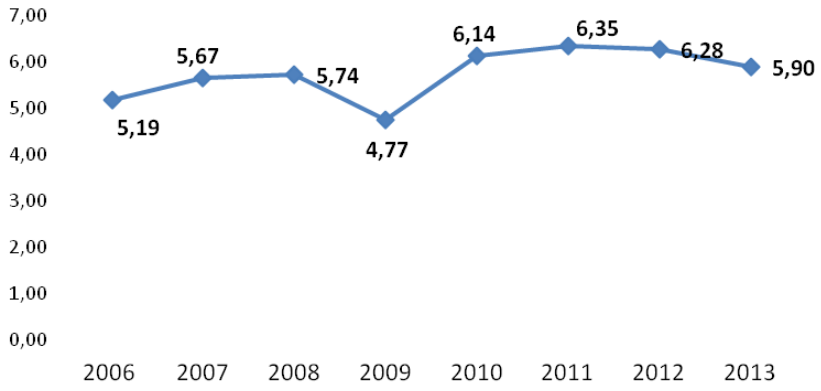

Figure 3
The Development of the Economic Growth Rate (%) in Indonesia Year 2006 -2013

Source: Central Bureau of Statistics, 2007 -2014.

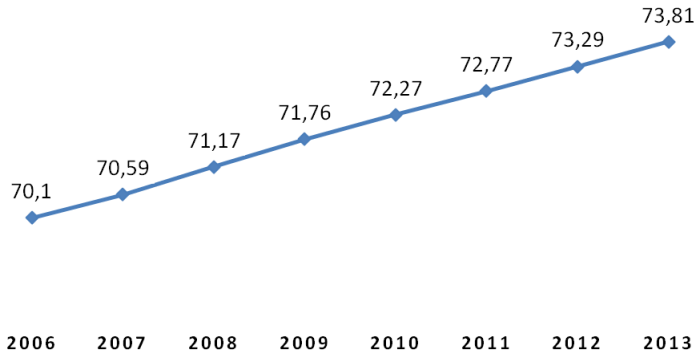

Figure 4
The Development of HDI in Indonesia Year 2006-2013

Source: Central Bureau of Statistics, 2007-2014.

wage in the form UMP that tends to rise each year makes the rate of economic growth to be one of the considerations in deciding the amount of the UMP. If the income of people working increases, it is expected that it will improve their ability to access and acquire education and better health. When the three components forming the Human Development Index (HDI), which are per capita income, education, and health increase from time to time then it will also improve the HDI.

Human development has been the focus of development policy makers to produce high quality society from the development activities. There has been an emergence of a heightened awareness in carrying out the human development. As a result, the orientation of physical development must be balanced with human development. The achievement of human development indicators comprehensively approached with HDI. HDI calculation includes three basic dimensions: the dimension of education, health, and economy. The development of HDI in Indonesia from 2006-2013 year continued to show an increase, as seen in Figure 4.

The problem occurring in Indonesia is the government that tends to make the target of increasing economic growth as an indicator of the success of the government's performance from year to year. Yet, for the society, what is more important is the better performance of HDI over time, because the HDI is an indicator that describes the welfare of the society. An assumption that should be tested is whether or not there is a significant positive effect of economic growth on the HDI in Indonesia? Another question that must be answered is whether the employment, foreign direct investment and domestic investment have significant positive effects on the HDI in Indonesia?

2. THEORETICAL FRAMEWORK AND HYPOTHESES

HDI is one of the measures that can be utilized to assess the level of welfare in a country. HDI has become an interesting discussion in the academic world and government policies (Klugman et al. 2011). Even today many countries still use the index as a measure to assess human development, al-

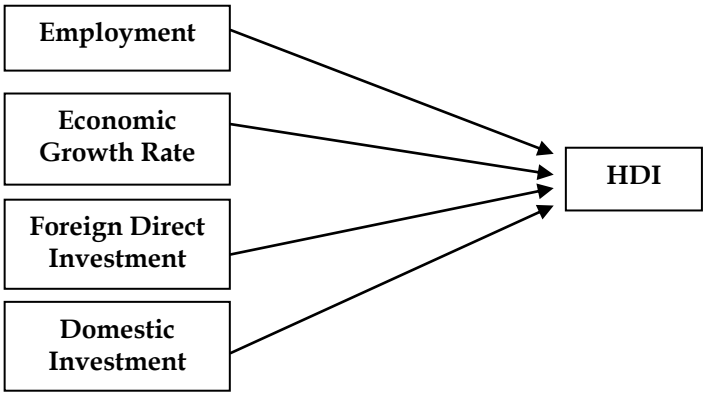

Figure 5
Research Framework

though according to (Ray 2014) the HDI should begin to include environmental health indicators as sustainable development efforts.

The number of people working is one of the factors that affect the HDI. It is the same as found in research by Michci et al. (2012) that explains that the workforce has a significant and positive effect on HDI. The research even offers to inlude the workforce as an indicator variable for HDI measurements that have been adapted to the labor force (employment-adjusted human development index). A study by Atmakuri et al. (2014) that which examined the relationship between per capita income and HDI. Atmakuri et al. found that between income per capita and HDI in India has a significant relationship. This happens because the per capita income of the population is one of the determining factors of HDI, in addition to educational level and health factors.

Another different case took place with (Carneiro Pinheiro et al. 2014), which in their study, examined the very strong correlation between economic growth and HDI. The findings are corroborated by several similar discoveries of (Enefiok & Sunday 2014), and (Gabriel 2013). Furthermore, HDI is also thought to be influenced by investment, both from domestic investment (DI) as well as investment from abroad (FI).

In general, the investment described by (Ullah et al. 2014) is a significant positive contributor to human development, it is similar to what was also found by (Joan B. Anderson 2010). More specifically, (Ndeffo 2010) found that domestic investment, government spending public sector, life expectancy and GDP per capita growth have a significant positive effect on human development, while FDI found no significant effect. FDI found significant positive effect on human development in several studies, such as those conducted by (McDonnell 2008) and (Heirsh & Mohammad 2013) who conducted research in three Asian countries namely Malaysia, Thailand and Indonesia.

In addition, other studies found that there is a causal relationship between the FDI and HDI as inferred by (Sanchez-loor & Zambrano-monserrate 2015). (Bankole et al. 2014) in his research found that investments in information technology affect the HDI. Therefore Bankole et al. suggesting the importance of the development and use of information technology to improve the HDI in a country. While (Curtis et al. 2013) found that HDI is one of the determinant factors on FDI, in addition to global competition factor.

Hypothesis

a. Employment has a significant and positive influence towards HDI
b. Economic Growth has a significant and positive influence towards HDI
c. Foreign Direct Investment has a significant and positive influence towards HDI
d. Domestic Investment has significant and positive influence towards HDI.
e. Simultaneously the employment, economic growth, foreign direct investment, and domestic investment have a significant influence to HDI.

3. RESEARCH METHOD

This study used secondary data from 2006 to 2013 of 33 provinces in Indonesia; they are a number of people working (employment), Economic Growth Rate, Foreign Direct Investment, Domestic Investment, and Human Development Index. Data was collected through library research from the Central Bureau of Statistics (BPS), Indonesia.

Specifications model built in this research is the HDI function equation=f (Employment, Economic Growth Rate, Foreign Direct Investment, Domestic Investment). The model is shown in Figure 5.

After going through the test model of MWD, the

Table 1
Fixed Effect Test

Redundant Fixed Effects Tests
Pool: POOL01
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	95.993152	(32,175)	0.0000
Cross-section Chi-square	619.174261	32	0.0000

Cross-section fixed effects test equation:
Dependent Variable: HDI?
Method: Panel Least Squares
Date: 09/26/15 Time: 03:06
Sample: 2006 2013
Included observations: 8
Cross-sections included: 33
Total pool (unbalanced) observations: 212

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	76.26169	3.255004	23.42906	0.0000
LOG(EM?)	-0.524300	0.239694	-2.187373	0.0298
EGR?	0.049005	0.053572	0.914751	0.3614
LOG(FDI?)	0.320173	0.120528	2.656429	0.0085
LOG(DI?)	0.282186	0.114241	2.470104	0.0143
R-squared	0.119065	Mean dependent var		72.194060
Adjusted R-squared	0.102042	S.D. dependent var		3.006940
S.E. of regression	2.849396	Akaike info criterion		4.955393
Sum squared residue	1680.644000	Schwarz criterion		5.034558
Log likelihood	-520.271700	Hannan-Quinn criter.		4.987390
F-statistic	6.994389	Durbin-Watson stat		0.071919
Prob(F-statistic)	0.000027			

Source: Processed data.

researchers discovered the best functional form to estimate HDI in Indonesia that is in the form of equation semi-logarithmic (log) as follows:

$$HDI_{it} = \beta_0 + \beta_1 \log EM_{it} + \beta_2 EGR_{it} + \beta_3 \log FDI_{it} + \beta_4 \log DI_{it} + e_{it}. \quad (1)$$

Description:
EM = Employment (people)
EGR = Economic Growth Rate (%)
FD = Foreign Direct Investment (million US $)
DI = Domestic Investment (million US $)
HDI = Human Development Index
β = constant
t = the period 2006-2013
e = error term.

4. DATA ANALYSIS AND DISCUSSION

This study uses data from thirty-three provinces in Indonesia. HDI models to be estimated are using data from 2006 to 2013 (8 years), so the total pool of observation data exists as much as 212.

Based on the calculation of probabilities F-computed in Table 1, the F-computed is 0.0000. This shows that the F-Calculate the probability value smaller than α= 5% to reject hypothesis null, then the proper data panel model used is the fixed effect compared to common effect.

The results of calculation of probability random cross-section, the probability are 0.0000 (see Table 2). Table 2 shows that the probability is smaller than α = 5% to reject nul hypothesis, then the proper data panel model used is the fixed effect compared with random effect.

The test results of empirical data by using **Fixed Effect Model** are shown in Table 3 in Appendices.

The function of HDI is:

$$HDI_{it} = \beta_0 + \beta 1 \log EMit + \beta_2 EGR_{it} + \beta_3 \log FDI_{it} + \beta_4 \log DI_{it} + e_{it}. \quad (2)$$

$$HDI_{it} = -21.10824 + 6.246006 \log EMit + 0.002549 EGR_{it} + 0.152395 \log FDI_{it} + 0.256299 \log DI_{it} + e_{it.}$$

R^2= 0.952518 N =212
F-stat = 97.51686.

Table 2
Hausman Test

Correlated Random Effects - Hausman Test
Pool: POOL01
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	63.137998	4	0.0000

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOG(EM?)	6.246006	2.069539	0.277018	0.0000
EGR?	0.002549	0.023708	0.000011	0.0000
LOG(FDI?)	0.152395	0.247910	0.000159	0.0000
LOG(DI?)	0.256299	0.287864	0.000038	0.0000

Cross-section random effects test equation:
Dependent Variable: HDI?
Method: Panel Least Squares
Date: 09/26/15 Time: 03:06
Sample: 2006 2013
Included observations: 8
Cross-sections included: 33
Total pool (unbalanced) observations: 212

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21.108240	9.610469	-2.196379	0.0294
LOG(EM?)	6.246006	0.669210	9.333400	0.0000
EGR?	0.002549	0.018694	0.136350	0.8917
LOG(FDI?)	0.152395	0.043161	3.530891	0.0005
LOG(DI?)	0.256299	0.040463	6.334170	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.952518	Mean dependent var	72.194060
Adjusted R-squared	0.942750	S.D. dependent var	3.006940
S.E. of regression	0.719468	Akaike info criterion	2.336647
Sum squared resid	90.58596	Schwarz criterion	2.922466
Log likelihood	-210.68450	Hannan-Quinn criter.	2.573421
F-statistic	97.51686	Durbin-Watson stat	0.958757
Prob(F-statistic)	0.00000		

Source: Processed data.

Statistic Test

a) The coefficient of determination (Goodness Regression Testing)

The the results of regression has been conducted and found that the value of R^2 is 0.952518 or 95.25%. This suggests that the variation of the independent variables can explain the variation of the dependent variable as much as 95.25% and the remaining is explained by other variables outside the model.

b) Test Statistic F (Feasibility Model)

The results of regression provide the value of the F-count which equals to 97.51686 and the value of the F-table that is at 2:41 with a significance level of $\alpha = 0.05$. The values obtained by the numerator (k - 1) or 4-1 = 3 and denominator (n - k) or 212-5 = 207. The result can be stated that F computed is larger than F table then the conclusion is to reject H0. This means that all the independent variables are jointly and significantly affecting the dependent variable.

Variable EM

This study discovered that the probability is 0, which means H_0 is rejected. In other words, it can be concluded that the variables significantly and positively influence the number of people working towards HDI. The implication is that if the number of people working increased by 1 percent, the HDI increased by 0.0625.

The number of people working during the study period showed a significant increase. In 2006 the number of people working still amounted to 95,456,935 people, and in the year 2013 has reached 110,804,041 people or in other words, during the period of 8 years it has increased 1.16 times.

The role of the number of people working is very important in the economy. Through a large number of people working with a good level of productivity, it will produce a large output which would affect the value of Gross Domestic Product (GDP) of the country. If a country's GDP continues to grow, the ability of the state to provide education and health care facility will also improve. GDP rose by controlling the addition of the population will be able to increase the per capita income of the country's society. The three components of education, health and per capita income that continue to improve cause the Indonesian HDI to be able to also continue to rise from the period of 2006-2013.

This study found that the number of people who work (employment) has significant and positive effect on the HDI, it reinforces previous findings that have been concluded by (Mihci et al. 2012). More than that even (Mihci et al. 2012) advised to use the workforce as one of the new indicators to measure the success of human development in a region or country.

Variable EGR

The results of the analysis shows that the probability is 0.8917, so H_0 is accepted. It means that the variable EGR has insignificant effect on the HDI. The EGR that has always had positive value in the study period has indeed been able to encourage improvements in the minimum wage level of workers in Indonesia. EGR is one of the variables determining the level of minimum wage in Indonesia, but in reality the value of the UMP that have improved from year to year has not been able to 100 percent meet the proper needs of daily life of a single worker in Indonesia. As a result, it is natural that EGR did not have a significant effect on the HDI in Indonesia.

This is in contrast with what has been investigated by (Carneiro Pinheiro et al. 2014), (Enefiok & Sunday 2014), and (Gabriel 2013) who found that EGR has positive significant effect on the HDI. However, there were no significant effect of economic growth on the HDI as the results of this study does not happen only this study. The results of the (Atmakuri et al. 2014) discovered some similarity , the results of the research found that economic growth is still not able to raise the HDI mainly through poverty. If it is drawn again into this study, it then will become a stronger reason when economic growth could lead to a rise in UMP but cannot eradicate poverty because the magnitude of the UMP has not been able to meet all the proper needs of daily life of a worker (human).

Variable FDI

The results of analysis shows that the probability value of 0.005, is to reject H_0. It can be said that FDI has a positive significant effect on the HDI. Variables coefficient of FDI is 0.152395, this means that when FDI rise to 1 percent, the HDI has increased by 0.0015. The development of FDI in Indonesia during this study showed a tendency to rise, except in 2009 which is lower than 2008, but it remained positive at the level of 4.77 percent. It happened due to the 2009 economic crisis in Indonesia as a result of the world economic crisis. The role of FDI during the period of this study is quite positive in increasing the amount of investment in Indonesia whose needs are rising from year to year, along with improved economic activity.

The findings in this study support previous findings regarding the effects of FI on the HDI, which is positive and significant impact on the HDI. Previous findings that support the results of the study are the research conducted by (McDonnell 2008) and (Heirsh & Mohammad 2013) in which both found that investment coming from overseas funds have positive and significant effect on the HDI. In addition the findings of the study with similar results supporting that investment and significant positive effect on the HDI as claimed by (Ullah et al. 2014) and (Joan B. Anderson 2010). However, the research results of (Ndeffo 2010) in the countries of sub-Saharan Africa during 1980-2005 found that FDI has no effect on HDI.

Variable DI

From the analysis result, it shows that the probability of 0, meaning that it rejects H_0. It can be concluded that the domestic investment has a significantly positive effect on the HDI. Domestic variable coefficient is equal to 0.256299; this means when domestic investment rises to 1 percent, the HDI has increased to 0.0026. Domestic variable coefficient is greater than the coefficient of FDI. This means that the role of domestic investment is more dominant than the FDI in improving the HDI in Indonesia.

The investment comes from domestic funds in the study found positive and significant impact on the HDI, it strengthens the research conducted by (Ndeffo 2010) who found that domestic investment, government spending public sector, life expectancy,

Table 4
Intercept Coefficient Provinces in Indonesia

No.	Province	Intercept Coefficient
Positive		
1	Bangka	10.071790
2	Kepulauan Riau	9.984777
3	Papua Barat	9.834866
4	Gorontalo	9.627399
5	Maluku	9.548218
6	Sulawesi Utara	9.325490
7	Bengkulu	8.409123
8	Maluku Utara	7.846219
9	Sulawesi Barat	7.500841
10	Kalimantan Tengah	6.560303
11	Daerah Istimewa Yogyakarta	5.458300
12	Kalimantan Timur	5.398950
13	Sulawesi Tenggara	3.817794
14	Jambi	3.527882
15	Riau	2.776337
16	Sulawesi Tengah	2.740419
17	Sumbar	2.486155
18	Aceh	1.558951
19	Bali	0.005025
Negative		
20	DKI Jakarta	-0.347755
21	Kalimantan Selatan	-1.436340
22	Nusa Tenggara Timur	-2.256196
23	Sumatera Selatan	-2.513857
24	Kalimantan Barat	-3.067265
25	Sulawesi Selatan	-3.513943
26	Papua	-3.895460
27	Lampung	-3.908161
28	Sumatera Utara	-4.666962
29	Nusa Tenggara Barat	-5.814855
30	Banten	-6.667947
31	Jawa Tengah (Central Java)	-12.91892
32	Jawa Barat (West Java)	-14.42568
33	Jawa Timur (East Java)	-15.47559

Source: The result of Eviews calculation.

and GDP per capita have significant positive effect on the HDI. Furthermore, the findings of this study also support the overall response to the discovery (Ullah et al. 2014) and (Joan B. Anderson 2010) which stated that investments have significant positive effect on the HDI.

Intercept Coefficient Provinces in Indonesia

The fxed Effect method shows that each province has different coefficient intercept. Positive intercept shows the development of HDI in the provinces that tend to improve, and conversely, negative intercept indicates the HDI in these provinces tend to decrease during the period of the study was being conducted (see Table 4). Bangka (10.07179) becomes the province with the highest HDI growth, followed by Kepri province (9.984777) and the province of West Papua (9.834866), become the top three provinces with the highest positive HDI. While the top three provinces with a negative intercept are East Java (-15.47559), followed by West Java (-14.42568) and Central Java (-12.91892).

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The results of the research indicated that the employment variable has a positive and significant impact on the HDI in Indonesia, while EGR does not

affect the HDI in the country. However, partially, Domestics Investment and Foreign Direct Investment have positive and significant effect on the HDI in Indonesia. Simultaneously, employment, EGR, FDI and DI have significant effects on the HDI in Indonesia.

The evidence in this study suggests that the government continue to increase job opportunities so that the number of employment will increase. An increase of employment should be done because it can contribute the most for the improvement of HDI of provinces in Indonesia. The value of Gross Regional Domestic Product (GRDP) of the provinces will be influenced by a large output and produce a large number of employed people with a good level of productivity. If GRDP continues to grow, the ability of the state to provide education and health care facilities will also be improved. The increase of per capita income will be possible by controlling the number of population which will increase GRDP. The three components of education, health and per capita income which continue to improve will increase the HDI of provinces of Indonesia.

The government should also continue to improve EGR, despite the less significant effect on the increase of the HDI partially. However, in collaboration, EGR has influence over the HDI. The HDI provinces will increase if the local government enforces policies which will encourage the achievement of a better EGR, accompanied by an increase in other independent variables.

The local government should continuously conduct an improvement of investment climate so that investors and the number of investment coming to provinces in Indonesia will also improve. The improvement of investment climate can be conducted by establishing local government policies such as ease of process, time acceleration and cost minimization of licensing for investors who intend to invest in Indonesia. The availability of location with prepared infrastructures as well as high quality workers is also necessary for the improvement. The government needs to pay a genuine attention to Domestic Investment, not only because of the important role of the Domestic Investment in influencing the improvement of HDI in Indonesia, but also the possibility of it in strengthening the national independence in investment. Nevertheless, the government's service to foreign investors also just as essential, because FDI and DI have significant impact to the increase of HDI, therefore improvement for both need to be conducted continuously.

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APPENDICES

Table 3
Regression Results

Dependent Variable: HDI?
Method: Pooled Least Squares
Date: 09/26/15 Time: 03:05
Sample: 2006 2013
Included observations: 8
Cross-sections included: 33
Total pool (unbalanced) observations: 212

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-21.10824	9.610469	-2.196379	0.0294
LOG(EM?)	6.246006	0.669210	9.333400	0.0000
EGR?	0.002549	0.018694	0.136350	0.8917
LOG(FDI?)	0.152395	0.043161	3.530891	0.0005
LOG(DI?)	0.256299	0.040463	6.334170	0.0000
Fixed Effects (Cross)				
_ACEH--C	1.558951			
_SUMUT--C	-4.666962			
_SUMBAR--C	2.486155			
_RIAU--C	2.776337			
_JAMBI--C	3.527882			
_SUMSEL--C	-2.513857			
_BENGKULU--C	8.409123			
_LAMPUNG--C	-3.908161			
_BANGKA--C	10.07179			
_KEPRI--C	9.984777			
_DKI JAKARTA--C	-0.347755			
_JABAR--C	-14.42568			
_JATENG--C	-12.91892			
_DIY--C	5.458300			
_JATIM--C	-15.47559			
_BANTEN--C	-6.667947			
_BALI--C	0.005025			
_NTB--C	-5.814855			
_NTT--C	-2.256196			
_KALBAR--C	-3.067265			
_KALTENG--C	6.560303			
_KALSEL--C	-1.436340			
_KALTIM--C	5.398950			
_SULUT--C	9.325490			
_SULTENGAH--C	2.740419			
_SULSEL--C	-3.513943			
_SULTENGGARA--C	3.817794			
_GORONTALO--C	9.627399			
_SULBAR--C	7.500841			
_MALUKU--C	9.548218			
_MALUT--C	7.846219			
_PB--C	9.834866			
_PAPUA--C	-3.895460			
Effects Specification				

Cross-section fixed (dummy variables)			
R-squared	0.952518	Mean dependent var	72.19406
Adjusted R-squared	0.942750	S.D. dependent bar	3.006940
S.E. of regression	0.719468	Akaike info criterion	2.336647
Sum squared resid	90.58596	Schwarz criterion	2.922466
Log likelihood	-210.6845	Hannan-Quinn criter.	2.573421
F-statistic	97.51686	Durbin-Watson sitat	0.958757
Prob(F-statistic)	0.000000		

Source: Processed data.