

Research Article

# The Gap in Economic Growth from Foreign Investment and Domestic Investment across Provinces in Indonesia

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## ABSTRACT

The study aims to determine the effect of Foreign Investment (FDI) and Domestic Investment (PMDN) on Cross-Province Economic Growth in Indonesia in 2014-2018. This study uses secondary data with Panel and Poled data consisting of 34 provinces in Indonesia, and use the 5 years time-series data during 2014-2018. The analytical method used is the panel regression analysis method with the Fixed Effect model and poled model. The results showed that foreign investment and domestic investment had a positive and significant effect on economic growth across provinces in Indonesia. Furthermore, the results of the study show that foreign investment and domestic investment have a significant and positive effect on economic growth in 8 provinces in Indonesia, and the foreign investment has a significant and positive influence on economic growth in 9 Provinces in Indonesia. However, only North Maluku, where foreign investment has a significant and negative effect on economic growth, and domestic investment significantly and positively affects economic growth in 6 provinces in Indonesia.

**Key Words:** Foreign Investment, Domestic Investment, Economic Growth

## 1. INTRODUCTION

Increased economic growth is an indicator of successful development in Indonesia, with the development of productive businesses in the real sector, thus creating jobs and increasing people's income. Efforts to accelerate the development of the real sector are by encouraging investment growth, both domestic investment (PMDN) and foreign investment (FDI). (Iamsiraroj & Doucouliagos, 2015) reinforces the positive influence of FDI in the economic growth process for selected developing countries. Investment can contribute to various real sector developments in Indonesia. According to the Investment Coordinating Board (2018), there are 3 business sectors with the largest amount of investment, namely transportation, telecommunications and construction, industry, and the food sector.

The turmoil of world economic development, the escalating trade war between the United States and China as well as an error in the investment licensing mechanism carried out by the government, this has an impact on the growth of foreign investment in Indonesia, according to the Investment Coordinating Board (BKPM) (2018). \$ 2,932 million in 2018 was the largest amount for the past 5 years. However, the opposite occurred in domestic investment in Indonesia according to the Investment Coordinating Board (2018), it was noted that in 2018, it amounted to Rp.66,254 billion, with an increase of 25.32% from 2017. The increase in domestic investment was caused by a weakening of the purchasing power of money. rupiah, high domestic currency circulation, and most economic actors divert their business activities domestically.

According to the Investment Coordinating Board (2018), it is seen that the overall foreign investment (FDI) is larger, namely 62.9% in 2017, with domestic investment only 37.9%. Meanwhile, in 2018 the amount of foreign investment was 54.5%, with domestic investment amounting to 45.6%. The spread of foreign investment and domestic investment to 34 provinces in Indonesia, however, there is a striking difference that there is an inequality in the distribution of investment, wherein DKI Jakarta, West Java, Central Java, East Java, and East Kalimantan, investment has increased, by 56.2% (2018) ), while in other areas, namely the island of Sumatra, parts of Kalimantan, Sulawesi and Papua, the investment amount is smaller, amounting to 43.8% (Investment Coordinating Board, 2018), this also has an impact on uneven economic growth.

## 2. LITERATURE REVIEW

The aim of increasing foreign investment and domestic investment in Indonesia is to increase real sector growth, increase production, create jobs, and increase national output which has an impact on increasing economic growth as the goal of economic development. (Arsyad, 2010) states that the factors that can affect economic growth consist of; (1) capital

accumulation, in which economic growth occurs with an increase in investment; (2) population growth that can increase the number of workers; and (3) technological advances that can increase the mobility and skills of labor, as well as production factors in increasing yields. Meanwhile, Nurske said that poverty in developing countries can be stopped by increasing capital, with additional capital, the availability of tools and machines will increase production and ultimately increase national income from the increased output produced (Jhingan, 2016).

Harrod-Domar assumes that the development process is a matter of increasing capital investment, with the problem of underdevelopment is a problem of lack of capital and if the capital is available and the capital is invested, growth will occur (Zakaria, 2009). (Law Number 25 of 2007) states that Foreign Investment is an investment activity to conduct business in the territory of the Republic of Indonesia which is carried out by foreign investors, either using foreign capital fully or in partnership with domestic investors. Foreign investors are individuals who are foreign citizens, foreign business entities, or foreign governments investing in the territory of the Republic of Indonesia.

The results of the study (Hussain & Haque, 2016) found that trade and FDI have a significant impact on the economic performance of Bangladesh. This study also shows a long-term relationship between the variables used in the model. The study concludes by recommending that the Mauritanian government should implement policies that have the potential to make the country's macroeconomic environment competitive and thus encourage FDI.

(Onakoya, 2012) By using a disaggregated dataset using a structural macro-econometric model consisting of four blocks, namely; supply, private demand, government, and the external sector to measure the impact of FDI on economic growth. The findings indicate that FDI contributes to the promotion of economic growth in Nigeria. However, the effects of FDI growth vary across sectors.

(Bakari, 2017b) The results determine that there is a positive impact of domestic investment, exports, and labor on economic growth in the long run; however, there is no relationship between domestic investment and economic growth in the short term (Bakari, 2018). The empirical results show that in the long term carrying out domestic investment hurts economic growth; However, exports and imports have a positive effect on economic growth. In the short term, only domestic investment and imports lead to economic growth in Algeria.

## Research Purposes

The research objective is to determine the effect of foreign investment and domestic investment on economic growth across provinces in Indonesia in 2014-2018.

## 3. RESEARCH METHOD

This study uses secondary data in the form of poled data which is sourced from the Investment Coordinating Board and the Central Bureau of Statistics for 5 years. The data analysis aims to simplify the data in a form that is easier to read to interpret. The data poled in this study have 3 methods to test the data, as follows:

Common Effect Model

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \mu_{it}$$

Fixed Effect Model

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 W_{it} + D_2 Z_{it} + \varepsilon_{it}$$

Random Effect Model

$$Y_{it} = \beta_0 + B_1 X_{1it} + \beta_2 X_{2it} + e_{it} + \mu_{it}$$

## Poled Model Regression Analysis

a. Model 1 is the additive model with the equation:

$$PDRB_{it} = \beta_{0i} + \beta_{1i} FDI_{it} + \beta_{2i} PMDN_{it} + \varepsilon_{it}$$

b. Model 2 is the sum model in 34 Provinces in Indonesia, with the following equation, for one of the Provinces to-j

$$PDRB_{j.it} = \beta_{j0} + \beta_{j1} * FDI + \beta_{j2} * PMDN + \varepsilon_{it}$$

## Data and Sources

The data used to assess the effect of foreign investment and domestic investment is the 2014-2018 panel data. Data on foreign investment and domestic investment are obtained from the Indonesian Investment Coordinating Board and data on the Gross Regional Domestic Product (GRDP) in provinces in Indonesia.

## 4. RESULTS AND DISCUSSION

In the selection of pooled data analysis with Chow test, Hausman test and LM test, which was selected in this study is the Fixed Effect Model. With the results and explanation of the pooled data regression in table 1.

**Table 1.** Fixed Effect Model Regression Test Results

Variabel	Coefficient	Std. Error	t-Statistics	Prob.
C	11.30872	0.086156	131.2583	0.0000
LOG(FDI)	0.033312	0.009834	3.387503***	0.0009
LOG(PMDN)	0.034736	0.005066	6.856167***	0.0000

\*\*\* Significant 1%

The results of the study are based on table 1, that a constant of 11.30872 indicates that if FDI and PMDN are (constant), then the GRDP in Indonesia is also 11.30%. The coefficient (FDI) has a value of 0.033, this indicates a positive relationship. This means that if FDI increases by 1%, then GRDP in Indonesia will also increase by 0.033%. The variable coefficient (PMDN) has a value of 0.034. This indicates a positive relationship. This means that if PMDN increases by 1%, then GRDP in Indonesia will also increase by 0.034%. There are several reasons that explain the influence of foreign investment and domestic investment, where from several provinces it is caused by abundant natural resources, quality human resources, developing and progressing MSMEs and ease of licensing to do business.

**Table 2.** Results of the Poled Data Regression Test and the Fixed Effect Model

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	10.23675	0.109984	93.07484	0.0000
LOG(FDI_ACEH)	0.132754	0.035844	3.703660***	0.0003
LOG(FDI_BALI)	0.169877	0.052626	3.227990***	0.0017
LOG(FDI_BANTEN)	0.006077	0.209981	0.028940	0.9770
LOG(FDI_BENGGKULU)	0.043377	0.027812	1.559667	0.1220
LOG(FDI_DIY)	0.106634	0.037453	2.847149**	0.0054
LOG(FDI_DKI)	0.336637	0.075391	4.465199***	0.0000
LOG(FDI_GRNTLO)	-0.078434	0.052243	-1.501324	0.1365
LOG(FDI_JABAR)	0.100352	0.105313	0.952893	0.3430
LOG(FDI_JAMBI)	0.170015	0.103054	1.649763	0.1022
LOG(FDI_JATENG)	0.037783	0.073914	0.511172	0.6104
LOG(FDI_JATIM)	-0.033187	0.144149	-0.230229	0.8184
LOG(FDI_KALBAR)	-0.006469	0.057900	-0.111720	0.9113
LOG(FDI_KALSEL)	0.036785	0.030596	1.202270	0.2321
LOG(FDI_KALTENG)	0.048343	0.028854	1.675417	0.0970
LOG(FDI_KALTIM)	0.115618	0.044655	2.589130**	0.0111
LOG(FDI_KALUT)	0.010659	0.053220	0.200290	0.8417
LOG(FDI_KBANGBIL)	-0.005496	0.044528	-0.123420	0.9020
LOG(FDI_KRIAU)	0.196363	0.023044	8.521347***	0.0000
LOG(FDI_LAMPUNG)	0.139362	0.036961	3.770554***	0.0003
LOG(FDI_MALUKU)	-0.011039	0.016922	-0.652378	0.5157
LOG(FDI_MALUT)	-0.043045	0.017724	-2.428646**	0.0170
LOG(FDI_NTB)	0.069878	0.020249	3.450984***	0.0008
LOG(FDI_NTT)	0.126514	0.029479	4.291644***	0.0000
LOG(FDI_PABAR)	0.069822	0.020474	3.410248***	0.0009
LOG(FDI_PAPUA)	0.188525	0.025854	7.291803***	0.0000
LOG(FDI_RIAU)	0.129624	0.118900	1.090194	0.2783
LOG(FDI_SULBAR)	0.004128	0.029237	0.141197	0.8880
LOG(FDI_SULSEL)	0.225116	0.038724	5.813284***	0.0000
LOG(FDI_SULTENG)	0.053334	0.019902	2.679747**	0.0086
LOG(FDI_SULTENGG)	0.124486	0.059692	2.085454*	0.0396
LOG(FDI_SULUT)	0.122072	0.035076	3.480201***	0.0007
LOG(FDI_SUMBAR)	0.145154	0.043182	3.361471***	0.0011
LOG(FDI_SUMSEL)	0.165760	0.035830	4.626303***	0.0000
LOG(FDI_SUMUT)	0.163350	0.104211	1.567495	0.1202
LOG(PMDN_ACEH)	0.077018	0.030289	2.542727**	0.0125
LOG(PMDN_BALI)	0.009058	0.070009	0.129389	0.8973
LOG(PMDN_BANTEN)	0.272482	0.232697	1.170974	0.2444
LOG(PMDN_BENGGKULU)	0.013028	0.021575	0.603874	0.5473
LOG(PMDN_DIY)	0.065916	0.033478	1.968903*	0.0518
LOG(PMDN_DKI)	0.032765	0.080505	0.406999	0.6849
LOG(PMDN_GRNTLO)	0.042613	0.038243	1.114257	0.2679
LOG(PMDN_JABAR)	0.261268	0.114484	2.282140**	0.0246
LOG(PMDN_JAMBI)	0.046174	0.090195	0.511931	0.6098
LOG(PMDN_JATENG)	0.310029	0.074130	4.182246***	0.0001
LOG(PMDN_JATIM)	0.402031	0.137831	2.916839**	0.0044
LOG(PMDN_KALBAR)	0.169113	0.060018	2.817702**	0.0058
LOG(PMDN_KALSEL)	0.134985	0.031195	4.327117***	0.0000
LOG(PMDN_KALTENG)	0.081114	0.030404	2.667930**	0.0089

LOG(PMDN_KALTIM)	0.174891	0.046683	3.746394***	0.0003
LOG(PMDN_KALUT)	0.076253	0.055357	1.377477	0.1715
LOG(PMDN_KBANGBIL)	0.079362	0.042014	1.888921	0.0618
LOG(PMDN_KRIAUI)	-0.005213	0.025538	-0.204144	0.8387
LOG(PMDN_LAMPUNG)	0.114479	0.032012	3.576107***	0.0005
LOG(PMDN_MALUKU)	0.016128	0.019498	0.827128	0.4102
LOG(PMDN_MALUT)	0.020488	0.017481	1.172023	0.2440
LOG(PMDN_NTB)	0.078854	0.021487	3.669749***	0.0004
LOG(PMDN_NTT)	-0.014857	0.021094	-0.704312	0.4829
LOG(PMDN_PABAR)	0.030248	0.037120	0.814876	0.4171
LOG(PMDN_PAPUA)	-0.037132	0.037335	-0.994542	0.3224
LOG(PMDN_RIAU)	0.173801	0.124377	1.397364	0.1654
LOG(PMDN_SULBAR)	-0.004386	0.022479	-0.195094	0.8457
LOG(PMDN_SULSEL)	0.039740	0.040026	0.992853	0.3232
LOG(PMDN_SULTENG)	0.090967	0.023155	3.928691***	0.0002
LOG(PMDN_SULTENGG)	-0.003040	0.068422	-0.044436	0.9646
LOG(PMDN_SULUT)	0.001380	0.034012	0.040570	0.9677
LOG(PMDN_SUMBAR)	0.082285	0.041959	1.961048*	0.0527
LOG(PMDN_SUMSEL)	0.068538	0.035267	1.943429*	0.0548
LOG(PMDN_SUMUT)	0.142905	0.113987	1.253694	0.2129
R-squared	0.996978	Mean dependent var		11.85301
Adjusted R-squared	0.994903	S.D. dependent var		1.142431
S.E. of regression	0.081565	Akaike info criterion		-1.882249
Sum squared resid	0.658632	Schwarz criterion		-0.599193
Log likelihood	227.1089	Hannan-Quinn criter.		-1.361522
F-statistic	480.3365	Durbin-Watson stat		1.976642
Prob(F-statistic)	0.000000			

\*\*\* Significant at 1%, \*\* Significant at 5%, \* Significant at 1%.

The results of the study based on table 2 were obtained, namely 8 provinces in Indonesia, namely the province of Aceh, DIY, Yogyakarta, East Kalimantan, Lampung, West Nusa Tenggara, Central Sulawesi, West Sumatra and South Sumatra foreign investment and domestic investment have a significant and positive impact on economic growth, indicating that the licensing bureaucracy for investment in these 8 provinces has been conducive and conditions productive economy, to encourage foreign investment and domestic investment. Furthermore, 9 provinces in Indonesia, namely the province of Bali, DKI Jakarta, Riau Islands, East Nusa Tenggara, West Papua, Papua, South Sulawesi, Southeast Sulawesi and North Sulawesi with significant foreign investment have a positive effect on economic growth, this means that natural resources are abundant in the province, which encourages foreign investment to do business and the local governments in the 9 provinces provide adequate bureaucratic permits. However, there is 1 province in Indonesia, which is North Maluku province, where foreign investment has a significant and negative effect on economic growth. This shows that foreign investment in the province has an impact on declining economic growth, due to the safety factor of investment that is not conducive so that investors lose.

Furthermore, according to table 2, it is explained that there are 6 provinces (West Java, Central Java, East Java, West Kalimantan, South Kalimantan, and Central Kalimantan) in Indonesia with significant domestic investment and positively affecting economic growth, this shows that domestic investment is sufficient. developing in small and medium enterprises (UMKM) in the province of West, Central, and East Java. Meanwhile, in the provinces of West, South, and Central Kalimantan, more domestic investment is in the oil and rubber plantation sector and the mining sector.

## 5. CONCLUSION

Based on the results showed that foreign investment and domestic investment had a positive and significant effect on economic growth across provinces in Indonesia. Furthermore, the results of the study show that foreign investment and domestic investment have a significant and positive effect on economic growth in 8 provinces in Indonesia, and the foreign investment has a significant and positive influence on economic growth in 9 Provinces in Indonesia. However, only North Maluku, where foreign investment has a significant and negative effect on economic growth, and domestic investment significantly and positively affects economic growth in 6 provinces in Indonesia

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