

# Capital Expenditure as a Mediator on the Effect of Foreign Investment and Domestic Investment to Regional Economic Growth in Regencies/Cities throughout East Nusa Tenggara Province

\*Clara Margilina Reinamah  
Accounting Department  
Kupang State Polytechnic  
Kupang  
[clara.reinamah@pnk.ac.id](mailto:clara.reinamah@pnk.ac.id)

Selfesina Samadara  
Accounting Department  
Kupang State Polytechnic  
Kupang  
[selfisamadara@gmail.com](mailto:selfisamadara@gmail.com)

Moni Yuniati Siahaan  
Accounting Department  
Kupang State Polytechnic  
Kupang  
[monijuniati@gmail.com](mailto:monijuniati@gmail.com)

**Abstract**—This Research aimed to find out the direct and indirect effect of investment that consist of Foreign and Domestic Investment on Capital Expenditure and Economic Growth in 2017-2019 of all the regencies/city in East Nusa Tenggara Province. This Research used secondary data published by Central Bureau of Statistic. The data were analyzed by using Path Analysis. The results of data analysis showed that Domestic Investment had both directly and indirectly effect to the Economic Growth by Capital Expenditure. Otherwise, The Foreign Investment had no direct and indirect effect to the Economic growth by Capital Expenditure. The Capital Expenditure can't become an optimal mediator on the indirect effect of Domestic Investment but it can mediate the indirect effect of Foreign Investment to the Economic Growth of each regency/city of East Nusa Tenggara Province.

**Keywords**—Foreign Investment, Domestic Investment, Capital Expenditure, Economic Growth

## I. INTRODUCTION

Lately, every regional government is required to maintain stable economic growth, one of them by increasing the Original Local Government Revenue. The Increase of Original Local Government Revenue is expected to be able to funding the implementation of public services in order to attract investors which can indirectly support the implementation of regional autonomy and encourage the economic growth and increase community welfare. An optimal public sector can only be implemented by increasing the allocation of capital expenditure in

providing adequate public facilities and infrastructure to increase the regional economic productivity. If any region has an adequate public infrastructure, it can increase investment and the society can carry out their activities more comfortably so that the resulting productivity increases.

Investment in an area can be sourced from both domestic and foreign investment. Domestic Investment and Foreign Investment that are right on target will both increase the economic growth of a region. This investment can be formed directly like purchase of assets or the new business establishment and also formed indirectly by using capital market as the mediator. Foreign Investment can motivate any innovation to the host region so it can support the economic condition become more efficient and effective, this is due to the learning of foreign technology. Previous research conducted by Latip (2009) found that Foreign Investment has any various effect to the regional economic development depends on the capital conditions of that area [1]. The capital condition here can be interpreted as the amount of Capital Expenditure by the local government. [2] Other previous research proved that there is no significant increase in productivity between the company which has acquired by foreign or domestic source in China, so that technology transfer does not necessarily go well (Wang and Wang, 2015). Starting from the result of research which are still varied, this research can provide a new picture of the scientific literature. The research which still has many pros

and cons, makes the phenomenon on effect of investment to regional economic growth become an interesting thing especially by using regions and cities data of one province, furthermore by adding a capital expenditure variable that act as a mediator on that analysis.

East Nusa Tenggara Province has chosen as the research object because it have 21 regencies and 1 city which has variety investment attractiveness on each area. This province has an economic condition which not only depending on one sector, but each regency/city has its own potential sector such as the tourism setor in West Manggarai, the fisheries sector in Alor also MSME and trade sector in Kupang city. These varied conditions are very suitable to be used as the research object with the result possibility can create a new source of confidence because most of the previous research done on the object where the majority economic growth depends on only one sector. This research is expected to provide a new tone in measuring the effect of investment, either directly or indirectly through the allocation of regional capital expenditures to the regional economic growth.

## II. LITERATURE REVIEW

### 2.1 Endogenous Growth Theory

The theory of Endogenous Growth is the main theory that underlies this research, that theory suggests that technological change is endogenous (originating from economic system) and has an influence on long-term growth. Endogenous growth theory pioneered by [3] Romer (1998) and [4] Lucas (1988) plays a role in explaining more advanced models of economic growth. The definition of capital in this moel is not only physical capital, but also includes human capital. In addition, [5] this theory assumes an increasing rate of return on the agregate function and determine the rate of return on capital investment (Arsyad, 2010). According to this theory, the main factors that causing differences in the level of income per capita between regions are due to differences in knowledge mechanism, investment capacity of physical capital, human capital and infrastructure.

### 2.2 Capital Investment

Regulation number 25 of 2007 describes Investments as all forms of investment, both by domestic and foreign investment to conduct business in the territory of the Republic of Indonesia [6]. The purpose of implementing investment can only be achieved if the supporting factors that obstruct the investment climate can be overcome, among others through improved coordination between central and regional government agencies, the creation of an efficient bureaucracy, legal certainty in the investment sector, economic cost which highly competitive and also a conducive business climate in the fields of employment and business security. With improvements to these supporting factors, it is hoped that the realization of investment will improve significantly. In accordance with

regulation number 5 of 2007 that Investment is divided into two, namely Foreign Investment (PMA) and Domestic Investment (PMDN)

### Foreign Investment (PMA)

The entry of foreign companies into investment activities in Indonesia is intended as a complement to fill the business and industrial sectors that have not been able to be implemented by domestic business actors. Foreign investment (PMA) has several characteristics, namely long-term nature, contributes a lot in technology transfer and creates new job. This long period of investment and job creation is very important for a developing region to be able to increase income per capita which will have an impact on regional growth and development. Pasaribu (2006) argues that foreign capital can directly accelerate the process of Indonesia's economic development [7]. Foreign capital is expected to directly or indirectly stimulate the climate or the life of the business and be used as an effort to penetrate international marketing networks through networks owned by foreign investors.

### 2.3 Domestic Investment (PMDN)

Regulation number 25 of 2007 describes in article 1 number 5 that domestic investors are individuals who are Indonesian citizens, Indonesian business entities, the Republic of Indonesia or regions that make investment in the territory of the Republic of Indonesia. The business that can be covered by Domestic Investment are all business fields in Indonesia. However, there are several fields that can only be handled by the government for example fields related to national secret and defense. Domestic investment outside these fields can be organized by the national private sector. Domestic investment can also be a synergy between state capital and national private capital, for example in the telecommunication and plantation sectors.

### 2.4 Capital Expenditure

Government regulation number 71 of 2010 on Government Accounting Standard defines capital expenditure as budget spending for procuration of fixed assets and other assets that provide benefits for more than one accounting period. [8] Further details regarding capital expenditure are explained in Technical Bulletin 03: Presentation and Disclosure of Government Expenditures. Capital expenditure is closely related to the term investment. Halim (2008) states that the word investment can produce various meanings depending on the context of spending [9]. Investment can arise from the difference between

revenue expenditure and capital expenditure. [10] In describing the term capital expenditure, the term used is capital expenditure because it provides benefits for more than one accounting period (Sularso and Restianto, 2011). Further explained in technical bulletin 04, the scope of Capital Expenditure includes: capital expenditure for procurement of land; buildings; other fixed assets, and other assets. Capital expenditure has an important role in improving the public infrastructure in order to increase the economic growth. [11] The higher the capital expenditure ratio, the higher the expected impact on economic development in that area (BPS, 2015). Mardiasmo (2009: 93) also states normatively, the higher the level of capital investment is expected to improve the quality of public services and in turn can increase the level of public participation in the economic growth of a region [12].

**2.5 Economic growth**

Boediono (2010:28) explains that economic growth is an expansion of economic activity and is the only way to increase the income of society members and create new jobs [13]. Economic growth is considered as a continuous process of increasing output per capita in the long term. The economic growth is one indicator of the success of a region's development. Thus, the higher the economic growth, the higher the welfare of the community, although there are other indicators that must be considered, namely the distribution of revenue. The government can improve the welfare of the society through increasing economic growth, by prioritizing the improvement of facilities and infrastructure, as well as constructing facilities that can encourage both foreign and domestic investment.

**III. RESEARCH METHOD**

This research is included in the category of Explanatory Research with a Quantitative approach. The source of this research data is secondary data, namely the publication of the Central Bureau of Statistics related to data on the realization of Foreign Investment and Domestic Investment in each Regency/City in East Nusa Tenggara Province and also detailed data on receipts and expenditures of each Regency/City in East Nusa Tenggara Province. The observation period in this research was for 3 years, namely 2017 to 2019. The sample criteria used in this research are regencies/cities that have complete data regarding all the variables studied. The sample used in this research was 20 regencies out of a total of 22 regencies/cities. This is because there are 2 regencies that have not received foreign investment from 2017 to 2019 so they cannot be used as samples for this research because they have incomplete data. To obtain the test results whether there is an effect of X1 and X2 on Y and Z is called a direct effect, while the effect of X1 and X2 on Z through Y is called an indirect effect, thereby this research will use path analysis techniques.

**IV. RESEARCH RESULT**

This study has two independent variables, namely Foreign Investment (X1) and Domestic Investment (X2), as well as one mediating variable for Capital Expenditure (Y) and one Dependent Variable of Economic Growth (Z).

Table 1. Output Results of Path Analysis Substructure Equation 2

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2122004873662	2	1061002436	4.281	.019 <sup>b</sup>
	4853000000.000		8312427000 000.000		
Residual	1412650395799	57	2478334027		
	73530000000.00		7188337000 00.000		
Total	1624850883165	59			
	98380000000.00	0			

a. Dependent Variable: CapitalExpenditure  
b. Predictors: (Constant), PMDN, PMA

Coefficients <sup>a</sup>			
Model	Standardized Coefficients	t	Sig.
	Beta		
(Constant)		27.311	.000
1 PMA	.020	.160	.874
PMDN	.360	2.906	.005
R Square	.131		

a. Dependent Variable: CapitalExpenditure

Based on the results of the path analysis of the first equation, it can be seen that Foreign Investment (PMA) has no effect on Capital Expenditures and Domestic Investment (PMDN) has no effect on Capital Expenditures. However, when viewed from the significance of the f test, PMA and PMDN together have an effect on Capital Expenditure by 13.1%. So, the first equation diagram that is formed is as follows:

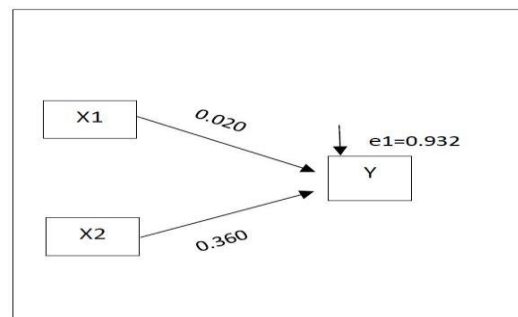


Figure 1. Path Analysis first equation

Tabel II. Output Results of Path Analysis Substructure Equation 2

Coefficients <sup>a</sup>			
Model	Standardized Coefficients	t	Sig.
	Beta		
(Constant)		.136	.892
1 PMA	-.031	-.284	.777
PMDN	.243	2.055	.045
CapitalExp	.434	3.677	.001
R Square	.322		

a. Dependent Variable: EconomicGrowth

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3260430078	3	1086810	8.869	.000 <sup>b</sup>
	6779070000		0262259		
	000.000		6900000		
1 Residual	6862576112	56	1225460		
	2369000000		0200423		
	000.000		0350000		
Total	1012300619	59			
	0914807000				
	0000.000				

a. Dependent Variable: EconomicGrowth

b. Predictors: (Constant), BelanjaModal, PMA, PMDN

Based on the results of the path analysis of the second equation, it can be seen that Foreign Investment (PMA) has no effect on Economic Growth, Domestic Investment (PMDN) has an effect on Economic Growth and Capital Expenditure has an effect on Economic Growth. However, when viewed from the significance of the f test, PMA, PMDN and Capital Expenditures together have an effect on Economic Growth of 32.2%. So, the second equation diagram that is formed is as follows:

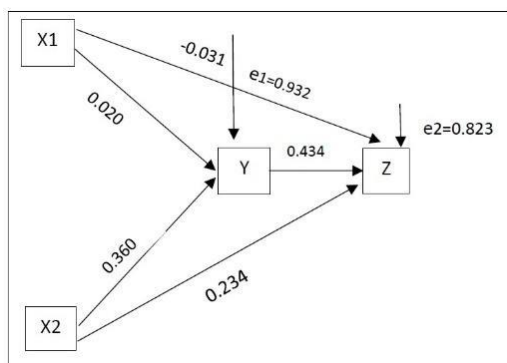


Figure 2. Path Analysis second equation

V. DISCUSSION

5.1 The Effect of Foreign Investment (PMA) to Capital Expenditures in each regencies/city at East Nusa Tenggara Province

The PMA variable has no effect on regional capital expenditures. This is because the allocation of Capital Expenditures tends to be based on the realization of PMDN in the previous year, not based on the amount of realization of PMA in that area. In addition, the allocation of Capital Expenditures such as projects to provide public facilities and infrastructure is intended to increase the attractiveness of domestic investors, not foreign investors. Local governments tend to prefer investment from within the country because although the figure is smaller than PMA, PMDN tends to be carried out regularly with a fairly stable figure.

5.2 The Effect of Domestic Investment (PMDN) to Capital Expenditures in each regencies/city at East Nusa Tenggara Province

The PMDN variable has an effect on regional capital expenditures. This means that the higher the PMDN allocation obtained by a region, the greater the allocation of Capital Expenditure determined by the region. This result is because when a region gets the trust of a large number of domestic investments, the region will be motivated to maintain the investment and even try to increase its investment figure by providing public infrastructure facilities to support running of the project or work that has been invested.

5.3 The Effect of Foreign Investment (PMA) and Domestic Investment (PMDN) on Economic Growth through Capital Expenditures in each regencies/city at East Nusa Tenggara Province

The PMA variable has no direct or indirect effect on Regional Economic Growth. This is because the majority of investment originating from foreign countries requires labor recruitment standards that are not able to be met by the local human resources. This is in line with the explanation obtained from an interview with the Head of the Investment Office of West Manggarai Regency as the area that receives the highest Foreign Investment in East Nusa Tenggara Province where the majority of foreign investment does not have an effect on the welfare of the people of the local area but those investment recruits more workers from outside the regency.

In addition, it is known that Capital Expenditure is not able to act as an optimal mediator on the effect of PMDN to Economic

Growth. This is because the emergence of the Capital Expenditure variable actually reduces the level of direct effect of PMDN to Regional Economic Growth. On the other hand, Capital Expenditures are able to mediate the effect of foreign investment to Economic Growth because the emergence of the Capital Expenditure variable is able to change the direct negative effect into an indirect positive effect of foreign investment to Economic Growth. This is because the allocation of regional capital expenditures is directly related to the local PMA because there is a regional policy for the provision of PMA. however, this does not apply to domestic investment which does not require contributions to regional infrastructure development projects. Contributions from foreign investors reduce the number of PMA and reduce the attractiveness of foreign investors in the area. On the other hand, this policy increases the attractiveness of domestic investors because the construction of infrastructure facilities is not borne by domestic investors so that domestic investors tend to continue to invest in the area with or without capital expenditure projects.

## VI. CONCLUSION

From the whole previous discussions on Capital Expenditure as a mediator on the effect of Foreign Investment and Domestic Investment to Regional Economic Growth in Regencies/Cities throughout East Nusa Tenggara Province, the following conclusions can be drawn: (1) Foreign Investment does not has a directly effect to Capital Expenditure; (2) Domestic Investment has a direct effect to Capital Expenditure; (3) Foreign Investment does not have a direct effect to Regional Economic Growth; (4) Domestic Investment has a direct effect to Economic Growth; (5) Regional Capital Expenditures have a direct effect to Regional Economic Growth; (6) Foreign Investment has no indirect effect to Economic Growth through Capital Expenditures; (7) Capital Expenditure is unable to mediate the effect on Domestic Investment to Economic Growth because the emergence of the Capital Expenditure variable actually weakens the effect of Domestic Investment on Regional Economic Growth. On the other hand, capital expenditure is able to mediate the effect of Foreign Investment to economic growth.

From the results of the analysis, the suggestions that can be given are as follows: (1) It is necessary to improve the quality of human resources so that they can be optimally absorbed by foreign investment, improving the quality of human resources can be started with foreign language training which can be continued with technical training in potential sectors of foreign investment using international standards, if necessary local governments need to invest first to bring in trainers or experts from foreign countries in order to improve the skill; (2) Policies related to the obligation to contribute foreign investment

to infrastructure development projects need to continue to be implemented as long as the human resource level is not able yet to meet the international worker standards so that regencies/cities can continue to enjoy these investments for their own infrastructure development..

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