The Effect of Saving and Investment to Economic Growth in Maluku Province

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Abstract

This study aimed to analyze the effect of saving and investment to economic growth in Maluku Province. The data used in this research is secondary data obtained from the Central Statistics Agency and Bank Indonesia for the 2015-2019 period. Data analysis using data-panel regression analysis. The results of this research found that saving had a positive and significant effect to economic growth and investment had a positive and insignificant effect to economic growth in Maluku Province. Savings are positively and significantly related to economic growth because the average income of the people in Maluku Province is used for consumption and in savings. Investment is positively and not significantly related to economic growth because when there is investment there is employment, but the absorption of labor is not optimal so that investment is not significant in the reality.

I. Introduction

Economic growth in a country is a long-term economic problem. In addition, economic growth in a country can also be used as a measuring tool to see and measure or analyze the level of economic development in that country. Economic growth in a country can be caused by many factors. For developed countries, they can rely on the production of their goods and services, but it is also possible for them to borrow and invest. In a country's economy, savings and investment are indicators that can determine the rate of economic growth.

The economic condition of the population is a condition that describes human life that has economic score (Shah et al, 2020). Economic growth is still an important goal in a country's economy, especially for developing countries like Indonesia (Magdalena and Suhatman, 2020).

The role of investment in Indonesia tend to increase in line with the amount of funds needed to continue national development. Investment is a crucial factor for the continuity of the process of economic development, or long-term economic growth involving production activities in all economic sectors.

Following the framework of the Harrod-Domar model, in a closed economy (without a foreign sector) in full employment conditions, and without capital mobility, saving became very important for economic growth, the mechanism of which is investment growth. Therefore, investment can be said to be a function of saving $I = f(S)$. The higher the level of savings that can be created, the greater the country's ability to invest. Furthermore, increased investment added more capital and through a multiplier process resulted in a higher rate of economic growth and an increase in per capita income.

Table 1. The Comparison of Savings and Investment Levels between Provinces in the Eastern Region (2009-2018)

PROVINCE	SAVINGS (Billion Rupiah)	INVESTASI (Billion Rupiah)
Papua	1,495,909,883	301,209,604
West Papua	528,567,619	303,249,814
Maluku	535,902,707	109,930,618
North Maluku	327,698,544	75,730,823

Source: Indonesia Bank (2019)

From the comparison that can be seen in the table, Maluku Province had a lower amount of savings than Papua Province, but is superior to West Papua and North Maluku Provinces. The comparison of the number of savings between Maluku and North Maluku Provinces is relatively different, where there is a difference of 208,204,163 (Billion Rupiah). Maluku Province also had a higher amount of investment compared to North Maluku Province, but lower than Papua and West Papua Provinces.

Table 2. Gross Regional Domestic Product (GRDP) of Maluku Province in 2009-2019

YEAR	GRDP (Billion Rupiah)
2009	7,069,64
2010	8,084,81
2011	19,597,39
2012	21,000,08
2013	22,100,94
2014	23,567,73
2015	24,859,20
2016	26,284,23
2017	27,814,05
2018	29,466,80
2019	31,108,76

Source: Central Bureau of Statistics of Maluku Province (2020)

Based on table 2 explained the gross regional domestic product development in Maluku Province from the 2009-2019 period, it has increased significantly from year to year starting from 2009 with a total GRDP of 7,069.64 and continued to increase until 2019 with a total GRDP value of 3,1,108,76.

Table 3. The Comparison of Savings, Investments and Economic Growth Maluku Province (2009-2019)

YEAR	SAVINGS (Billion Rupiah)	INVESTMENT (Billion Rupiah)	ECONOMIC GROWTH (%)
2009	26,697,372	2,788,136	6,06
2010	29,232,725	4,734,186	6,47
2011	36,049,494	9,407,653	6,34
2012	45,013,906	11,605,104	7,16
2013	53,826,963	13,854,259	5,24
2014	58,348,948	15,018,024	6,64
2015	61,320,030	11,149,220	5,48
2016	70,906,901	9,738,269	5,73
2017	73,938,890	14,049,920	5,82
2018	80,567,478	17,585,847	5,94
2019	84,713,635	19,462,18	6,01

Source: Indonesia Bank (2020)

Seen from table 3, regional economic growth changed every year. It can be seen that the economic growth in 2009 was 6.06%, where the amount of savings and investment was still low compared to the following years. However, in 2012 economic growth stood at 7.16% when the number of savings and investments increased that year.

Table 4. Savings in 11 Regencies/Cities in Maluku Province (Billion Rupiah) 2015-2019 Period

Districts/Cities	2	2016	2017	2018	2019
Kepulauan Tanimbar	1.338,	1.417,20	1.500,79	1.590,86	1.685,82
Maluku Tenggara	1.570,	1.660,71	1.758,91	1.863,70	1.972,73
Maluku Tengah	4.666,	4.943,33	5.230,45	5.540,98	5.868,13
Bur	1.239,	1.309,99	1.388,75	1.475,06	1.564,45
Kepulauan Aru	1.821,	1.916,83	2.030,36	2.153,28	2.278,62
Seram Bagian Barat	1.573,	1.660,76	1.758,40	1.758,40	1.966,73
Seram Bagian Timur	1.760,	1.848,63	1.910,39	1.917,69	1.936,88
Maluku Barat Daya	841,63	892,5	946,84	1.004,71	1.064,74
Buru Selatan	705,28	748,86	794,74	842,55	892,11
Ambon	8.210,	8.715,00	9.252,48	9.826,71	10.398,47
Tua	1.195,	1.265,19	1.337,78	1.417,79	1.501,02

Source: Indonesia Bank (2020)

Meanwhile, table 5 explained that investment conditions in 11 districs/cities in Maluku Province didn't spread well. The occurrence of uneven investment in these 11 districs/cities is caused by the provincial government which still focused on incoming investment in certain areas that have natural resources, so that it results in inequality in development.

Table 5. Domestic Investment Data (DID) 11 Districts/Cities in Maluku Province (Billion Rupiah) Period 2015-2019

Kabupten/Kota	2015	2016	2017	2018	2019
Kepulauan Tanimbar	224.731.631.075	209.611.423.61	176.743.589.315	174.964.709.830	178.544.908.341
Maluku Tenggara	251.943.821.447	297.895.226.350	251.943.821.45	217.617.469.620	204.380.167.530
Maluku Tengah	332.260.978.205	332.200.231.350	364.918.834.453	345.096.715.810	352.134.605.835
Buru	198.230.862.471	252.688.446.161	254.619.175.542	264.590.717.790	268.413.654.450
Kepulauan Aru	129.268.100.250	238.445.815.660	254.589.863.740	226.460.937.732	161.709.395.415
Seram Bagian Barat	212.063.180.164	200.568.657.761	230.412.989.830	277.981.699.502	285.731.684.661
Seram Bagian Timur	139.631.421.199	220.812.459.588	295.570.419.840	239.768.852.556	250.761.853.555
Maluku Barat Daya	194.411.415.896	271.196.696.211	333.764.881.072	239.955.993.364	253.875.486.578
Buru Selatan	240.406.670.510	286.940.404.456	221.793.228.420	265.655.391.650	175.506.878.305
Ambon	1.071.257.509.456.85	1.127.557.104.387.14	1.084.108.406.554.35	915.346.626.132	223.856.429.424
Tual	169.993.160.482	222.256.950.005	205.841.431.346	170.610.589.085	190.570.982.630

Source: Indonesia Bank (2020)

Table 6. Economic Growth of 11 Districts/Cities in Maluku Province (%) 2015-2019 Period

Tahun	K.Tanimbar	Malra	Malteng	Buru	Aru	SBB	SBT	MBD	Bursel	Ambon	Tual
2015	6.03	1.25	5.02	5.64	5.59	5.81	5.36	6.57	5.69	6.77	5.23
2016	5.89	6.04	5.25	5.71	5.81	5.03	5.94	6.15	5.57	6.18	5.72
2017	5.90	6.09	5.92	5.91	5.74	3.34	5.81	6.17	5.88	6.13	6.01
2018	6.00	6.11	6.05	5.96	5.98	3.38	5.94	6.21	5.95	6.02	6.22
2019	5.97	5.97	5.82	5.85	5.87	4.00	5.90	5.82	5.56	5.88	6.06

Source: Central Bureau of Statistics of Maluku Province (2020)

Seen from the table, it explained that the economic growth conditions occurred in 11 districts/cities in Maluku Province. It can be seen that the economic growth of 11 districts/cities has fluctuated or experienced ups and downs in economic growth which is clearly visible in the table and by looking at the table above looking at the data for 2019 or the last year, it can be seen that the lowest economic growth is in the West Seram District with a value of 4, 00%, and the highest economic growth is Tual City with an economic growth value of 6.06%. Then the economic growth which has the same economic growth value is the Tanimbar Islands District and Southeast Maluku District with an economic growth value of 5.97%.

Based on the phenomenon that has been described, there is a problem, namely, the reality related to the effect of savings and investment on economic growth in Maluku Province is not in accordance with what is said in theory. Therefore, the author wants to conduct a research with the title "The Effect of Savings and Investments to Economic Growth in Maluku Province Analysis".

II. Review of Literature

2.1 Savings Theory
a. Harrod and Domar Theory

Savings were very influential for the economic growth of a country. If a country wanted to grow rapidly, then the amount of savings must be increased and the value of the ICOR (Incremental Capital Output Ratio) must be reduced. Savings which were a source of funds for the development which come from the country or from abroad. In general, however, in developing countries the domestic saving rate was relatively small.

b. Classical Economic Theory (Non Keynesian)

Wicksell, one of the classical adherents stated that saving is a function of the interest rate with a positive relationship. While Keynes (1936) defined saving as a function of the level of income. According to the classical view, saving was a function of the interest rate. In its development, this theory was developed by Wicklesell who stated that the high interest of the community to save was influenced by the high interest rate. According to classical (non-Keynesian) economists, analysis was to explain the determination of interest rates, and not to determine employment and income as in Keynes' view (Isnowati, 2012). According to classical economists (NonKeynesians), Saving Investment (SI) analysis was an analytical tool to explain the determination of interest rates, and not to determine employment and income as in Keynes's view. Classical opinion about S-I like that was the

same as the problem of market prices (market equilibrium price), which occured because of the interaction between supply and demand for an item. In line with the process of the occurrence of the market price, the interest rate occurs and is determined by considerations between the supply of savings and the demand for savings (for investment).

c. Keynesian Theory

Keynes believed that the level of consumption spending was a stable function of disposable income. Disposable income is obtained from income minus taxes. Keynes did not ignore the influence of other variables that affect consumption, but Keynes believed that the main factor influencing consumption was the level of income. In the matter of saving - investment, Keynes argued that income is the balancing mechanism between saving investment, so that in society there may be an excess of saving over investment or vice versa.

d. Savings Function *(S)*

National saving can be defined as the total income in the economy that remained after being used for government spending and consumption. Within a country, domestic investment can be financed by national savings and loans from abroad. The total funds available to finance investment (I) are equal to national savings (S+(T-G)) plus foreign loans (X-M).

Savings was the residual income that is not spent by consumers. According to Keynes, the amount of savings made by households does not depend on the high and low interest rates but which mainly depends on the size of the household income level. The greater the amount of income received by a household, the greater the amount of savings that will be made. If the amount of household income does not increase or decrease, a large enough change in interest rates will not have a significant effect on the amount of savings that the household will make. This meant in Keynes's opinion, the amount of income received by households is the main determinant of the amount of savings that will be made by households and not the interest rate.

2.2 Investment Theory

Investment was a function of income and interest rates, seen with the relation I= (Y,i). An increase in income will encourage greater investment, whereas a higher interest rate will reduce interest in investing as it will be more expensive than borrowing money. Even if another company choosen to use its own funds for investment, the interest rate represents an opportunity cost of investing those funds rather than lending to earn interest.

According to Sunariyah (2003:4): "Investment is an investment for one or more assets owned and usually for a long period of time in the hope of getting profits in the future." According to economic theory, investment means the purchase (and production) of capital goods that are not consumed but are used for future production (produced goods). For example, building a railroad or factory. Investment is a component of GDP with the formula GDP = C + I + G + (XM). The investment function in this aspect is divided into non-residential investment (such as factories and machinery) and residential investment (new houses).

2.3 Economic Growth Theory

Economic growth was the process of changing the economic conditions of a country on an ongoing basis towards a better state over a certain period. Economic growth can also be interpreted as a process of increasing the production capacity of an economy which is

manifested in the form of an increase in national income. The existence of economic growth is an indication of the success of economic development in people's lives. Economic growth showeds the growth in the production of goods and services in an economic area in a certain time interval.

2.4 Classical Economic Growth Theory

Classical flow emerged at the end of the 18th century and early 19th century, namely during the industrial revolution, where the atmosphere at that time was the beginning of economic development.

According to Adam Smith, for economic development to take place, specialization or division of labor is needed so that labor productivity increases. Specialization in the production process will be able to improve the skills of the workforce, can encourage the discovery of new tools or machines and ultimately accelerate and increase production. It is stated that before there is a division of labor there must be an accumulation of capital where this accumulation of capital comes from the savings fund. According to Adam Smith, once this growth begins it will be cumulative, meaning that if there is sufficient market and there is accumulation of capital, division of labor will occur and this will increase the level of productivity of labor. This increase in productivity will increase national income and further increase the population.

2.5 Neoclassical Growth Theory

Neoclassical Economic Growth Theory has been developing since the 1950s. This theory developed based on analyzes of economic growth according to the classical view. According to this theory, economic growth depends on the addition of the supply of factors of production (population, labor, and capital accumulation) and advances in the level of technology. Based on his research, Solow said that the role of technological progress in economic growth is very high.

2.6 Previous Research

Studies on economic growth and the factors that influenced it have been widely studied. At the beginning of a country's economic development, economic development planning was generally oriented to the problem of growth. This was understandable considering that the main obstacle to the development of developing countries was the lack of capital. By using figures (GDP) as research material, an analysis of economic growth can be carried out. In summary, table 7. presented a brief summary of similar research that was a reference in this study.

Table 7. Previous Research

No	Authors / Year	Research Title	Variable	Research Result
1.	Dewi Laksmi, Lukman and Bachriar Nurzaman (2010)	The Effect of Foreign Investment and Savings on Economic Growth in Indonesia.	FI (Foreign Investment), Savings, Economic Growth	The results of this research conclude that foreign investment and savings have a positive and significant effect on economic growth in Indonesia.
2.	Engla Desnim Silvia, dkk (2013)	Analysis of Economic Growth, Investment and	Economic Growth, Investment,	The results show that consumption, investment and net exports have a

		Inflation in Indonesia Period (2001-2010).	and Inflation.	significant effect on economic growth in Indonesia, while government spending and inflation have no significant effect on economic growth in Indonesia.
3.	Efrida Ningsih, Syamsul Amar and Idris (2013).	Analysis of Economic Growth, Consumption and Savings in West Sumatra Period 2001-2010.	Economic Growth, Consumption and Savings.	The results show that consumption, investment, government spending and net exports have a significant effect on economic growth in West Sumatra.
4.	Efrizal Hasan, Syamsul Amar, Ali Anis (2014)	The Effect of Investment, Labor Force and Government Expenditure on Economic Growth in West Sumatra Province	Investment, Labor Force, Government Expenditure And Economic Growth.	The results showed that there was a significant effect of investment on economic growth in the Province of West Sumatra.
5.	Teddy Christianto Leasiwal (2015)	The Effect of Determinants of the Industrial Subsector on Gross Regional Domestic Product in Maluku	Determinants and GRDP	The results of the study show that the number of firms, workforce, and investment, in the general industrial subsector, has an effect on increasing GRDP, which in turn can affect economic growth in Maluku.

2.7 Research Framework

The Solow model showed that the saving rate was an important determinant of the steady-state capital stock, as is investment. If the saving rate was high, the economy will have a large capital stock and a high level of output. If the saving rate was low, the economy will have a small capital stock for investment and a low level of output. Higher savings lead to faster growth. Economic growth is also influenced by other factors, including capital, employment, labor, income, and consumption.
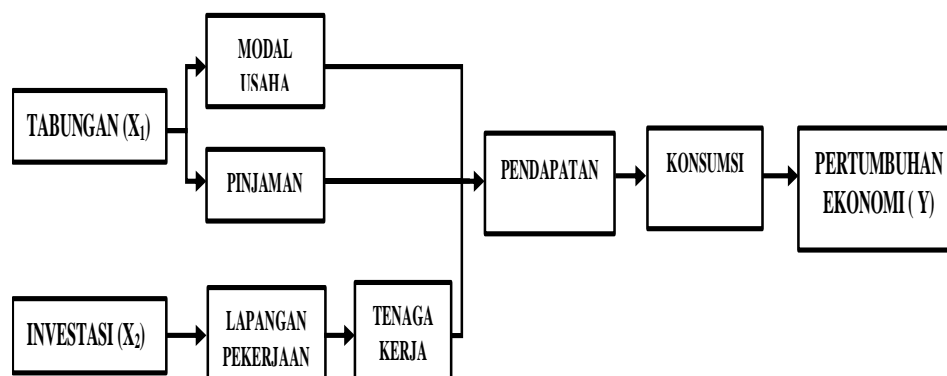
Therefore, from the above framework, it is assumed that savings and investment have an effect on economic growth.

2.8 Research Hypothesis

Hypothesis is defined as an interpretation that is formulated and accepted for a while which will be tested for truth (M. Nazir, 1998). Based on the objectives of this study, the following hypothesis is proposed:

H_1: Allegedly Savings Have a Positive Effect on Economic Growth in Maluku Province.

H_2: Allegedly Investment Has a Positive Effect on Economic Growth in Maluku Province.

III. Research Method

This research was a quantitative study conducted to analyze economic growth in Maluku Province, where economic growth is the dependent variable (Y) and the variables that affect economic growth were savings and investment (X). Sources of data come from various sources, including Bank Indonesia, the Central Bureau of Statistics of Maluku regarding GRDP data for Maluku Province and the quarterly report on economic growth, savings and investment in 11 districts/cities in Maluku Province for 2009-2019. In this writing, the author uses the library search method, namely research conducted with library materials in the form of scientific writings and scientific research reports that have a relationship with the topic under study. The data used in this study is secondary data sourced from institutions or other relevant sources. The data that has been collected is then categorized according to the variables that have been identified in the framework of thinking and operationalizing the variables.

3.1 The Scope of Research

In developing countries, there are many factors that influence economic growth, however, the research is limited to the influence or role of savings and investment on economic growth. With consideration of time, effort and cost. In detail, the object of research is economic growth (GRDP), savings and public investment in 11 districts/cities in Maluku Province.

3.2 Data Source

Sources of data came from various sources, including Indonesia Bank, the Central Bureau of Statistics of Maluku regarding GRDP data for Maluku Province and the quarterly report on economic growth, savings and investment in 11 districts/cities in Maluku Province for 2009-2019.

3.3 The Collecting Data Method

In this writing, the author used the library search method, namely research conducted with library materials in the form of scientific writings and scientific research reports that have a relationship with the topic under study. The data used in this study is secondary data sourced from agencies, institutions or other relevant sources.

3.4 Operational Definition

a. Economic growth is an indication of the success of the economic development of a region. The economic growth of Maluku Province is seen from data on the economic growth rate of 11 Districts/Cities in Maluku Province, for the 2015-2019 period which

is expressed in percent units. This showed the level of Economic Growth of Maluku Province to be compared with the level of savings and investment in Maluku Province.

b. Savings were residual income that is not spent by consumers. Savings for the people of Maluku Province can be seen from the savings data of 11 Districts/Cities in Maluku Province, for the 2015-2019 period which is expressed in billions of rupiah.

c. An increase in income will encourage greater investment. Public investment is seen from domestic investment data for 11 Districts/Cities in Maluku Province, for the 2015-2019 period which is expressed in billion rupiah units.

3.5 Analysis Method
a. Panel Data Regression Analysis

Regression using panel data is called panel data model regression. There were several advantages to using panel data. First, panel data which is a combination of two time series and cross section data is able to provide more data so that it will produce a greater degree of freedom. Second, combining information from time series and cross section data can overcome problems that arise when there is a problem with eliminating variables (committed-variables). According to (Widarjono, 2013) panel data was a combination of time series data and cross section data, so the equation model can be written as followed: $Yit = \beta 0 + \beta 1 X1it + \beta 2 X2it$ eit

b. Common Effect Method

The Common Effect method was the simplest technique for estimating panel data. Only by combining time series and cross section data, we can use the Ordinary Least Squares (OLS) method to estimate the panel data model. This method is known as Common Effect estimation. It is assumed that the behavior of the data between spaces is the same in various time periods. The regression equation model in linear form is as followed. $Yit = \beta 0 + \beta 1 X1it + \beta 2 X2it + eit$

c. Fixed Effect Method

This model assumed that the regression coefficient (slope) remain between space and time. In the estimation of the Fixed Effect model, it can be done by using a dummy to explain the difference in the intercept. This estimation model is often referred to as Least Squares Dummy Variables (LSDV) and when there is heteroscedasticity it used a fixed effect with cross section weight.

$Yit = \beta 0 + \beta 1\ X1it + \beta 2\ X2it + ….+ eit$

Fixed Effect model technique was a technique for estimating panel data by using dummy variables to capture differences in intercepts. The definition of Fixed Effect is based on the difference in the intercept between the independent variables but the intercept was the same over time (time invariant). In addition, this model also assumed that the regression coefficient (slope) remains between regions and over time. (Agus Widarjono, 2009b)

d. Random Method

This method selected the estimation of the final data with residuals that may be interconnected between time and individuals, assuming each province has an intercept. However, it is assumed that the intercept is a random variable. The random effect model is written in the linear regression model as followed: $Yit = \beta 0 + \beta 1 X1it + \beta 2 X2it + eit$

e. Model Selection in Data Processing

The selection of the model to be used in a study really needs to be done based on statistical considerations. This is intended to obtain an efficient estimate. To decide which model is the most appropriate for this research, formal tests will be used, namely the Chow Test and the Hausmann Test.

f. The Chow Test

The chow test was conducted to determine whether the model used was pooled least square or fixed effect. The hypothesis of the Chow test was:

H0: F statistic < F table, then a valid PLS model is used
H1: F statistic > F table, then a valid fixed effect model is used

If the statistical Chow value (F statistic) from the test results was smaller than the F-table, then the null hypothesis is accepted. So that the model that will be accepted and used is the PLS model, and vice versa. The basis for rejecting the null hypothesis was to use F-statistics

g. The Hausman Test

The Hausman test is used in testing to find out whether the model will be by comparing the random effect regression model or it is better to use the fixed effect. To find out by looking at the chi-squared test: H0 = Random effect model is better than the fixed effect model

H_a = Fixed effect model is better than random effect model
Significant level α= 5% (0,05)

In decision making, the Langrangge multiplier test can be done by looking at the p-value if it is significant < (α = 5%) then the regression model chosen is fixed effect. However, if the p-value is not significant > (α=5%) then the regression model chosen is random effect.

3.6 Hypothesis Test
a. Hypothesis Testing Partially / Individually (T Test)

This test is carried out with the aim of testing the parameters individually (partial) with a certain level of confidence and having a significant effect on the dependent variable. To partially analyze the effect of saving and investment on economic growth in Maluku Province, a one-tailed statistical research hypothesis is formulated.

b. Simultaneous Hypothesis Testing (F Test)

Statistical hypothesis testing through the f-test is used to test whether the independent variables included in the regression model can affect the dependent variable simultaneously/together or not, in this study the formulation of the hypothesis testing through the f-test is as followed:

H_0: β_1 =0,: meant independent variable (savings had a significant effect on economic growth simultaneously)
H_1: β_1 ≠0,: meant independent variable (simultaneous investment had a significant effect on economic growth)
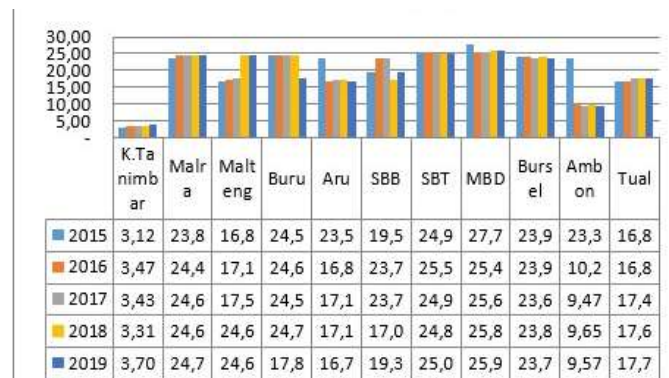
c. Coefficient of Determination (R^2)

This test aims to measure how well the regression line fits the data or measure the percentage of the total variation in Y described by the regression line. The closer the number is to 1, the better the regression line is because it can explain the actual data. The closer to zero we have a regression line that is less good. Agus Widarjono, (2009)

The value of R^2 indicated the magnitude of the independent variables in influencing the dependent variable. The value of R^2 ranges between 0 and 1(0 R^2 1). The greater the value of R^2, the more accurate the regression line in describing the observation value.
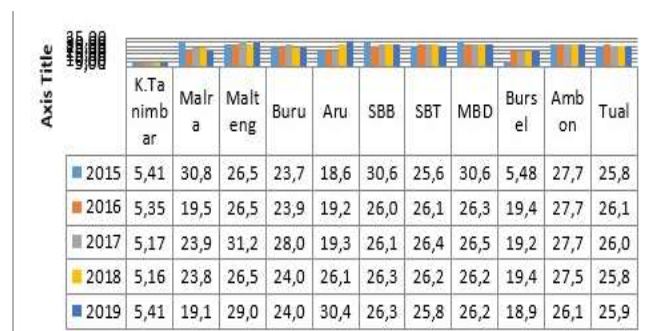
IV. Results and Discussion

4.1 Results

The following was the condition of Savings, Investment and Economic Growth in Maluku Province which included 11 Districts/Cities:

	K.Ta nimb ar	Malr a	Malt eng	Buru	Aru	SBB	SBT	MBD	Burs el	Amb on	Tual
2015	3,12	23,8	16,8	24,5	23,5	19,5	24,9	27,7	23,9	23,3	16,8
2016	3,47	24,4	17,1	24,6	16,8	23,7	25,5	25,4	23,9	10,2	16,8
2017	3,43	24,6	17,5	24,5	17,1	23,7	24,9	25,6	23,6	9,47	17,4
2018	3,31	24,6	24,6	24,7	17,1	17,0	24,8	25,8	23,8	9,65	17,6
2019	3,70	24,7	24,6	17,8	16,7	19,3	25,0	25,9	23,7	9,57	17,7

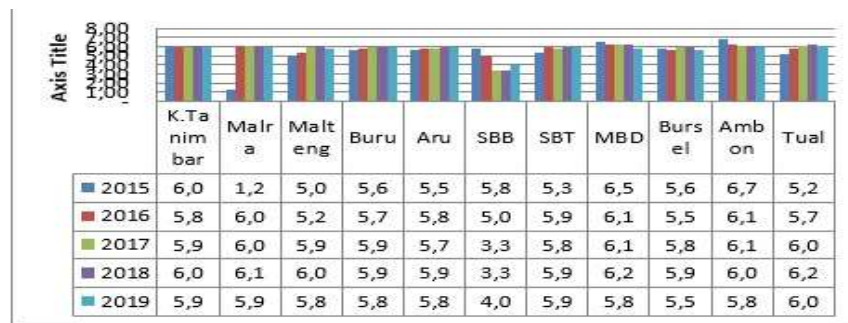Source: Indonesia Bank (2020)

Figure 1. *Savings Development (%)*

Based on Figure 1 depicting the condition of savings in 11 districs and cities in Maluku Province, it can be seen that the Tanimbar Islands Regency was at the lowest level of savings in the last five years with a saving value from 2015 of 3.12% and until 2019 at 3.70%. , and the district that had the highest savings rate is in the West Seram District as seen in graph 4.1 above that in 2015 savings was 24.9% and continued to increase until 2019 with a saving growth of 25.0%, and look at the development Ambon City savings have decreased in the last five years seen from the graph showing a very significant decline, in 2015 the development of Ambon City savings was 23.3% and decreased every year until 2019 by 9.57%.

	K.Ta nimb ar	Malr a	Malt eng	Buru	Aru	SBB	SBT	MBD	Burs el	Amb on	Tual
2015	5,41	30,8	26,5	23,7	18,6	30,6	25,6	30,6	5,48	27,7	25,8
2016	5,35	19,5	26,5	23,9	19,2	26,0	26,1	26,3	19,4	27,7	26,1
2017	5,17	23,9	31,2	28,0	19,3	26,1	26,4	26,5	19,2	27,7	26,0
2018	5,16	23,8	26,5	24,0	26,1	26,3	26,2	26,2	19,4	27,5	25,8
2019	5,41	19,1	29,0	24,0	30,4	26,3	25,8	26,2	18,9	26,1	25,9

Source: Indonesia Bank (2020)

Figure 2. *Investment Development (%)*

Based on Figure 2, it can be seen that the development of investment in 11 districts/cities in Maluku Province, it can be seen that the Tanimbar Islands District was in the lowest position, the level of investment can be seen from 2015 investment of 5.41% and up to 2019 of 5.41%, and looking at the other 10 cities saw significant investment development conditions, and the district with the highest investment in the last year or 2019 was Aru District with an investment value of 30.4%, then Central Maluku District with an investment rate of 29.0% while Ambon City in 2019 with an investment rate of 26.1%.

	K.Ta nim bar	Malr a	Malt eng	Buru	Aru	SBB	SBT	MBD	Burs el	Amb on	Tual
2015	6,0	1,2	5,0	5,6	5,5	5,8	5,3	6,5	5,6	6,7	5,2
2016	5,8	6,0	5,2	5,7	5,8	5,0	5,9	6,1	5,5	6,1	5,7
2017	5,9	6,0	5,9	5,9	5,7	3,3	5,8	6,1	5,8	6,1	6,0
2018	6,0	6,1	6,0	5,9	5,9	3,3	5,9	6,2	5,9	6,0	6,2
2019	5,9	5,9	5,8	5,8	5,8	4,0	5,9	5,8	5,5	5,8	6,0

Source: Central Bureau of Statistics of Maluku Province (2020)
Figure 3. Economic Growth Development (%)

From Figure 3 illustrated that economic growth conditions from 2015-2019 in urban districts in Maluku Province, it can be seen in the graph that the average of 11 districts/cities showed very good economic growth but there was one district that experienced very low economic growth. is Southeast Maluku District in 2015 with an economic growth of 1.2% and the 11 districts/cities with relatively high economic growth, Ambon City is seen from graph 4.3 above.

a. Panel Data Regression Model Selection

Table 8. The Comparison of Chow Test and Hausman Test

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1130.763386	(10,42)	0.0000

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

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.120527	2	0.0773

Source: Author's Data Processing Results (2021)

b. The Chow Test

From the results of the chow test, the results of the cross-section F distribution value were 1130.763386 with a probability of $0.0000 < \alpha$ 5%, so statistically rejected H_0 and accept H_a. So according to the estimation model, the correct model used is the fixed effect estimation model.

c. Hausman Test

From the results of the Hausman test, it was found that the value of the chi-square distribution was 5.120527 with a probability of 0.0773 < α 5%, so that statistically it rejected H_0 and accepted H_a. So according to the estimation model, the correct model used is the fixed effect estimation model.

d. Regression Result Analysis

Table 9. The Best Regression Results (Fixed Effect Model)

Dependent Variable: LNPE?
Method: Pooled EGLS (Cross-section weights)
Date: 03/17/21   Time: 22:11
Sample: 2015 2019
Included observations: 5
Cross-sections included: 11
Total pool (balanced) observations: 55
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.70374	1.079066	15.47981	0.0000
LNTAB?	0.540622	0.175329	3.083462	0.0036
LNINV?	0.116724	0.019625	0.342619	0.7336

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.998364	Mean dependent var	85.32086
Adjusted R-squared	0.997897	S.D. dependent var	93.22734
S.E. of regression	2.600727	Sum squared resid	284.0788
F-statistic	2135.993	Durbin-Watson stat	1.780753
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.880947	Mean dependent var	19.55278
Sum squared resid	306.2282	Durbin-Watson stat	1.479495

Source: Author's Data Processing Results (2021)

Table 10. The Coefficient of Determination Test Results

R-squared	0.998364
Adjusted R-	0.997897

Based on table 10, it can be seen that the coefficient of determination of savings and investment has an effect on economic growth of 0.998364 or 99% and as explained above which explains that the closer the number is to 1, it means that the regression line is able to explain the actual data, which means that the regression line of the data is very good or fit.

Table 11. F-Test Results

F-statistic	2135.993
Prob(F-statistic)	0.000000

The results of the panel data test with fixed effect regression obtained an F-statistic of 2135.993 and a probability value of 0.000000 (< α 5%). So it can be concluded that the estimated fixed effect. All independent variables together significantly affect the dependent variable.

Table 12. T-Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob
LNTAB?	0.540622	0.175329	3.083462	0.0036
LNINV?	0.116724	0.019625	0.342619	0.7336

1. Testing on Savings Variables
2. The coefficient of the saving variable is 0.540622 with a t-statistic of -3.083462 while the probability value is 0.0036 (<5%) so that statistically it shows that the X1 variable (Savings) has a significant effect on the Y variable (Economic Growth).
3. Testing on Investment Variables the coefficient of the investment variable is 0.116724 with a t-statistic of 0.342619 with a probability value of 0.7336 (<5%) so that statistically it shows that the X2 (Investment) variable has no significant effect on the Y variable (Economic Growth).

4.2 Discussion
a. The Effect of Saving on Economic Growth

In explaining the effect of saving on economic growth in Maluku Province by using a panel data regression analysis tool using Eviews. Based on table 9 it can be seen that saving had a positive effect on economic growth in Maluku Province. By having a coefficient value of 0.540622 with a significant effect with a probability value of 0.0036. So if saving had an increase of 1%, it can increase economic growth by 0.54%. Based on panel estimation data, saving had a positive and significant effect on economic growth, which meant that it is in accordance with the initial hypothesis that the saving variable had a positive effect on economic growth variables in Maluku Province. Savings were positively and significantly related to economic growth because the average income of the people in Maluku Province is used for consumption and in savings. So even though the accumulation of savings in Maluku Province was still very low, economic growth in Maluku Province was still high and why economic growth remained high because economic growth is not only supported by savings but, there were still many factors that support economic growth such as capital expenditures and investment locally-generated revenue. The results of this research were in accordance with the Sollow model which showed that the saving rate is an important determinant of the capital stock at steady state conditions. In other words, if the saving rate is high, the economy will have a large capital stock and a high level of output and vice versa.

The results of this research were in line with research conducted by Febriani (2007), which stated the effect of domestic savings, population, imports and exports on economic growth. From the results obtained, it is stated that the increase in the number of savings, population and exports had a significant positive effect on economic growth in West Sumatra. Saving was an important factor in determining economic growth. If the level of public savings was high then the funds stored will also increase. These funds can be allocated to increase economic growth through investment or investment.

According to Keynes, saving is determined by the current level of income. According to Arsyad (2004), the high level of household savings depend on the amount of income that is ready to be spent. The desire to save from income that is ready to be spent will increase according to the level of income.

b. The Effect of Investment to Economic Growth

Based on table 12 explained that investment had a positive effect on economic growth in Maluku Province. With a coefficient value of 0.116724 with a significant effect with a probability value of 0.7336. So if investment has increased by 1%, it can increase economic growth by 0.11%. Investment was positively and not significantly related to economic growth because when there was investment there was employment, but in fact the absorption of labor in Maluku was not optimal so that investment has no significant effect on economic growth. The results of this research are in accordance with research by E. Hasan (2014) with the research title "The Effect of Investment, Labor Force and Government Expenditure to Economic Growth in West Sumatra Province".

According to Jhingan, through investment, economic activity will be able to develop and people's welfare will increase. This research was also in accordance with the theory put forward by Harrold-Domard which stated that in a two-sector economy, investment must increase so that the economy experiences prolonged growth and the increase in investment is needed to increase aggregate expenditure. In the context of development, especially in developing countries, investment is the main target whose contribution was very reliable in pursuing the target of faster economic growth, especially in developing the growth rate of regional original income.

V. Conclusion

From the analysis of the effect of savings and investment to economic growth, conclusions can be drawn, namely:
1. Savings had a positive and significant effect on economic growth in Maluku Province.
2. Investment had a positive and insignificant effect to economic growth in Maluku Province.

Suggestions
1. To increase economic growth, the government is expected to make government policies in order to stimulate and encourage public saving which is still very relevant to continue to be increased in order to increase the rate of economic growth in Maluku Province.
2. To increase economic growth, the government is expected to attract investment by creating a conducive investment climate, simplifying the agreement process, and improving the quality of human resources so that it is hoped that the investment value can encourage economic growth in Maluku Province.

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