The Effect Of Government Expenditure, Investments And Export On Economic Growth In Aceh

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Abstract

The aims of this study is to analyze how the effect of government expenditure, investment and exports on economic growth in Aceh. It uses time series in 2003-2018. Data were analyzed using OLS method. The results show that increasing government expenditure, investment and exports can increase economic growth, however only government expenditure and exports have a statistically significant effect on economic growth, while investment in the form of foreign investment and domestic investment has no significant effect. Therefore, it is hoped that the Aceh government will be able to carry out development programs by improving the export structure by increasing the added value of export commodities, improving infrastructure, especially in rural areas and being able to allocate funds effectively and efficiently.

Keywords: Economic Growth, Government Expenditure, Exports, Investment, Ordinary Least Square

Introduction

Economic growth is one indicator of the success of economic development in an area. Higher economic growth, is on sign of welfare community. Economic growth is process of increasing production capacity of an economy that is reflected in national income. Economic growth is a country's long-term increase in the ability of its economy to meet various types of economic goods that are needed by people in the country, (Kuznet in Fitri, 2016). This capability grows in accordance with technological advances and the necessary institutional and ideological adjustments (Jinghan, 2012). According to Sirojuzilam (2008) that economic growth is rate of growth formed through several economic sectors which indirectly provides an overview of level growth that occurs and as an important indicator for the region in evaluating the success of regional development. Economic growth is said to be good if there is an increase rate of growth in previous year, while economic growth is not good if the economic growth in the previous year did not increase but decreased from the previous year. The indicators used to calculate the level of economic growth, such as rate of growth of national products, are called gross domestic product (GDP) for national level and gross regional domestic product (GRDP) for provincial and district/city areas (Susanti, 2000).

Aceh's economic performance can be seen from rate of economic growth as measured by rate of increase in GDP (Yuliadi, 2009). Economic growth in Aceh province in 2013 - 2014 decreased by 1.06% with 1.88% compared to 2015 (BPS, 2018). According to Bank Indonesia, which was quoted by portalsu.com (2015) that a deficit international trade balance caused economic growth to decline, such as
Aceh’s oil and gas foreign exports which declined and also the amount of trade between regions which was the main cause of the decline in the Aceh economy. Trade between regions was carried out in response to the increased consumption of households whose needs have not been able to be accommodated by Aceh. In addition, the economic downturn was also triggered by (1) the mining sector such as: gold, copper, zinc lead, iron ore, chromium, molybdenum and manganese and (2) the manufacturing industry sector such as: cement, food, perfume, citronella oil which has decreased. In 2016 - 2017 economic growth has increased.

Investment is divided into foreign investment and domestic investment. Increased investment will affect the increase in production capacity which will eventually open up new jobs which will further encourage economic growth (Sutawijaya, 2010).

Aceh’s export value declined from 2013-2016. The lowest export value occurred in 2016 which amounted to USD 22,869,514 and the highest export value in 2013 which amounted to USD 962,969,640. The low value of exports in 2016 was due to the unavailability of commodities to be exported from Aceh and the reduced quantity of non-oil and gas exports such as fish commodities such as tuna and shrimp which were affected by the season which prevented fishermen from sailing.

Aceh’s investment, which consists of fluctuating foreign investment and domestic investment, tends to increase. For foreign investment in 2013-2014 there was an increase and in 2015-2016 foreign investment fell and in 2017 foreign investment rose again and in 2018 it fell again. The position of Aceh which is on the edge and directly borders with ASEAN countries is also an obstacle because it will increase the cost of distribution and limited access and the transportation conditions in Aceh are not as smooth as other regions and the investment climate is not yet good which must be improved. Therefore it is necessary to see how influence of government spending, investment and exports on economic growth in Aceh?

**Literature Review**

Economic growth is the ability to increase a country's long-term capability which is increasingly increasing in providing various types of economic goods that are increasingly for its population which is realized by the existence of a continuous increase in national output. This ability grows due to technological advances, institutional and ideological adjustments that are needed (Jhingan, 2004). According to Amir (2007), economic growth is process of increasing per capita production in long run. Activities in economy will cause the goods and services produced to increase so that the prosperity of the community will increase. High and sustainable economic growth is a prerequisite for ongoing economic development in a region. The 3 main points on the notion of growth that have been mentioned such as process, per capita output and long term. The process that describes the economic development in an area from time to time which has a dynamic nature, then the output per capita by linking aspects to the total output and aspects of the population and long term, namely the tendency to change the economy in a certain period of time driven by changes in the internal economy.

Economic growth can be seen through two sides, namely the demand side and also the supply side. If viewed from the demand side, it can be calculated through components found in the macroeconomic side, namely: consumption, investment, exports, government expenditure, etc. For the supply side can be seen by calculating the added value in each sector in national production (Wahyudi, 2010). Indicators are carried out to measure extent of success of economic performance, namely GRDP. GRDP is made through indicators which are used as an assessment of economic performance (BPS, 2010). GRDP is amount of added value generated for all business and service in an area, by applying sum of a final value of goods and
services produced by all economic units. GRDP can be interpreted as amount of
added value generated by all business units or is total value of goods and services
by all economic units in a region (BPS, 2016). To calculate GRDP one of national
income calculations can be used, namely the expenditure approach. The expenditure
approach used to calculate the value of goods and services issued by various groups
in society, with the following equation:

\[
Y = C + I + G + (X - M)
\]

Where \(C\) is expenditure of household consumption, \(I\) is capital formation
(investment), \(G\) is expenditure of government, and \((X - M)\) is export and import
values.

According to Salvator (1990) that exports are one of drivers of economic growth. A
study conducted by Salvator shows that export is one of main factors for developing
countries in promoting economic growth. Exports carried out by developing countries
can encourage output and economic growth. An increase in exports will generate
foreign exchange for country, one of which is used to finance capital goods needed
in production process which will be added value. Total value added generated by all
production units is called the GDP / GRDP value. Similarly, export investment is also
another factor in increasing economic growth. According to Todaro (2000) that
investment plays an important role in driving the economic growth of a country, with
investment as capital formation can increase capacity in producing goods so as to
increase national income and create fields work. Government expenditure can
significantly affect the level of GDP by changing the supply of various factors that
can be used in production through government expenditure programs. According to
Rahayu (2011) that the activities carried out by the government are driving the
amount of state expenditure that affects the economy.

Almutmainnah (2016), states that exports have a significant impact on Indonesia’s
foreign exchange reserves, while import have no significant impact on Indonesia’s
foreign exchange reserves. Anggraeeni (2017) showed that export had no influence
on economic growth in the Riau, import had an influence on economic growth in the
Riau, investment had an influence on economic growth in Riau and together export,
import and investment had an influence on the economic growth.

Aulia (2013), do research using the causality test and VAR estimation show that net
exports, foreign and domestic investment have a significant influence on Indonesia's
economic growth in the period 2000-2012. Net export and foreign investment gave
a positive response in long run to Indonesia’s economic growth in the period 2000-
2012. Net export have a greater influence on Indonesia’s economic growth compared to foreign investment and domestic investment in period 2000-2012.

Pridayanti (2014) said that variables of export, import, and the exchange rate based
on a joint test, all variables jointly had a significant impact on Indonesia’s economic
growth at a significance level of 5% with variables of export, import, and exchange
rate based on a joint test. All variables together have a significant impact on
economic growth in Indonesia at a significance level of 5%. While individually,
export variables have a positive influence on economic growth in Indonesia. Import
variables negatively influence economic growth in Indonesia. While exchange rate
variable has a negative effect on economic growth in Indonesia.

Sutawijaya (2010) concluded that private investment of 1% will increase economic
growth by 0.036%. The effect of government investment is lower than the effect of
private investment, where any increase in government investment of 1% will
increase economic growth by 0.084% assuming other factors are constant. Testing
the relationship between oil and gas exports to economic growth shows a negative
sign, non-oil exports have a positive effect on economic growth, which is statistically
significant at $\alpha = 5\%$. Every change in non-oil exports by 1% will increase economic growth by 0.082%.

**Research Method**
Data used in this study are time series data in 2003-2018. Data collected in form of export value, investment value, government expenditure value and total GRDP value based on 2010 constant prices in Aceh Province. The method of linear regression is used to show the relationship between the independent variables, in this case government expenditure, investment, exports with the dependent variable, namely the provincial GRDP of Aceh, as follows:

$$GAt = \alpha_0 + \beta_1GEt + \beta_2FIT + \beta_3DIt + \beta_4XAt + e$$

Information
- **GA**: Economic growth (billions of rupiah)
- **GE**: Government Expenditure (Billion Rupiahs)
- **FI**: Foreign Investment (US $ Thousand)
- **DI**: Domestic Investment (Billion Rupiahs)
- **XA**: Exports (Thousand US $)
- **$\alpha_0$$**: Constant
- **$\beta_1$, $\beta_2$$**: regression coefficient
- **$e$$**: Standard error

Expected regression coefficients $\beta_1$, $\beta_2$, $\beta_3$, $\beta_4 > 0$

**Results and Discussion**
Growth in the value of Aceh's exports in 2003-2018 fluctuated. If it is observed again the overall growth in export values in 2003 - 2009 has decreased. Decline in value of export was caused by a decrease in production volume. In 2008 exports rose again by 20.49% but export values declined again in 2009 by 49.05% in 2010 it increased again to the extent that mineral fuels such as bricks were the most exported commodity in 2010.

Economic growth of Aceh in 2003-2018 tended to increase. In 2003-2005 foreign investment increased, but in 2005-2007 Aceh's investment declined. However, in 2008-2010 foreign investment increased again. In 2010-2012 foreign investment again declined and in 2013 foreign investment again increased. In 2015-2017 foreign investment rose again and the highest foreign investment was in 2017 but in 2018 foreign investment dropped dramatically compared to previous year. The decline in the value of foreign investment is caused by foreign investors who are increasingly reduced resulting in a reduction in foreign investment due to lack of proper treatment such as valuing investors, lack of providing provision of incentives for foreign investors such as, reducing the tax burden to be paid by foreign investors, lack of provision of facilities and adequate infrastructure to support investment activities. The increase in foreign investment was caused by increased security for investors to invest in Aceh, and Aceh's investment growth that improved, which resulted in the confidence of investors to invest in Aceh. Another thing that affected the increase in foreign investment was the incessant promotion by the Aceh government both at the national and international level by the Aceh government to invest in Aceh.

Based on the regression results show that the effect of export, foreign investment and domestic investment and government expenditure on economic growth in Aceh is 85.49%. The rest is explained by the other variables outside model. Based on results F value at p value is equal to 0,000 well below the 0.05 threshold. This indicates that the variables of export, foreign and domestic investment and government expenditure have a significant influence on economic growth in Aceh.
Based on equations obtained, the regression model has the following meanings the resulting constant value is 15,947. This figure means that if exports, imports and government expenditure are assumed to be constant, the economic growth of Aceh province will increase by 15,947 billion rupiah.

Estimation results in this study indicate that export variable regression coefficient is 1.1266. There is a positive relationship between export and economic growth of Aceh, so that the effect of export on economic growth is positive. This means that every increase in exports of US $ 1, it will encourage the economic growth of Aceh Province by 1.1266 billion rupiah. This is in accordance with the hypothesis that increasing exports will increase economic growth in Aceh Province. The t-statistic test also shows that export have a significant effect on economic growth in Aceh. This is in line with Primandari (2017) that the value of export has a significant influence on economic growth in Indonesia. According to Sukirno (2010) that exports can expand the market for products produced in Indonesia by expanding production by selling goods from domestic to foreign countries, the country has the advantage, one of which is to increase the country’s foreign exchange, with export the domestic production will also an increase that also affects employment by increasing employment so that the number of unemployment is reduced, it will affect economic growth in Aceh.

Foreign investment increased by 1000 US $, it will encourage the economic growth of Aceh by 0.9575 billion rupiah. However, the t-statistic test showed that the amount of foreign investment had no significant effect on the economic growth of Aceh province. Domestic investment also has a positive effect on economic growth. Every increase in domestic investment of 1 billion rupiahs, it will encourage economic growth of Aceh by 0.133 billion rupiahs, but statistically has no significant significant effect.

This is in line with Asyian (2013) that foreign and domestic investment do not significantly influence economic growth of the provinces in East Java. This is caused by growth of foreign investment and also domestic investment has fluctuating growth due to poor management of infrastructure and communication between entrepreneurs and government that needs to be addressed. Infrastructure is the main key in achieving high economic growth growth, especially good transportation facilities that will reduce the cost of distribution and suppress the economy and also the lack of confidence of investors both from domestic and abroad to invest in Aceh Province, still lacking information about sources funds from the banking sector that can be utilized in project financing.

### Tabel 1. Estimation Government Expenditure, Investments And Export On Ecocomic Growth In Aceh

<table>
<thead>
<tr>
<th>Variabel Name</th>
<th>Estimated Coefficient</th>
<th>Standard Error</th>
<th>T-Ratio 11 Df</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>15.947</td>
<td>0.1888</td>
<td>5.968</td>
<td>0.014</td>
</tr>
<tr>
<td>GE</td>
<td>1.1274</td>
<td>5.487</td>
<td>2.906</td>
<td>0.016</td>
</tr>
<tr>
<td>FI</td>
<td>0.9575</td>
<td>0.1242</td>
<td>1.158</td>
<td>0.5291</td>
</tr>
<tr>
<td>DI</td>
<td>0.1438</td>
<td>0.3971</td>
<td>2.839</td>
<td>0.271</td>
</tr>
<tr>
<td>XA</td>
<td>1.1266</td>
<td>0.1445</td>
<td>0.6625</td>
<td>0.000</td>
</tr>
</tbody>
</table>

| R-Square      | 0.8549                |
| F             | 16.202                |
| P-value       | 0.000                 |
Government expenditure has a positive and statistically significant influence on economic growth. Government expenditure increased by 1 US $, it will encourage economic growth in the Aceh by 1,274 billion rupiah. Government expenditure has a significant effect on economic growth in Aceh. This study is in line with Anitasari (2015), that government expenditure have a significant influence on economic growth in Bengkulu. Increasing support for government expenditure in development activities in Aceh. In macroeconomic concept, government expenditure will increase national economic. Government expenditure that drives the economy is assuming that government expenditure is used entirely for economic activities or that provides impetus for development of economic activity. So that if government expenditure increases, economic growth in Aceh also increases.

Conclusions
Government expenditure, foreign and domestic investment, and export can increase economic growth in Aceh. Statistically, government expenditure and export also have a significant effect on Aceh's economic growth. While foreign and domestic investment did not have a significant effect on Aceh's economic growth, partially, it did not have a significant effect. In enhancing economic growth so that government can improve export performance, such as improving the structure of export, by providing added value for raw material commodity products into semi-finished goods or finished goods. Increased investment can be done by improving infrastructure and bureaucracy.

References