

The Relationship between Capital Expenditure, Income Inequality, Total Population and Economic Growth Post-Implementation of Local Autonomy in Indonesia

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This study aimed to analyze the relationship between capital expenditure, income inequality, total population and economic growth in 38 districts/cities in East Java Province, Indonesia during the period of 2011-2015. Panel data with fixed effect was employed as the analysis technique. The findings prove the existence of a positive relationship between capital expenditure and economic growth in the district/city. The relationship between income inequality and economic growth was in a negative correlation. While there was no significant relationship between total population and economic growth in East Java Province. Therefore, by referring to the results, we recommend the government to increase its allocation of capital expenditure, both spatial and sub-sectoral. Moreover, the government also need to expand its fiscal redistribution policy on public services needed by the citizens (education, health, and transportation). These improvements could eventually contribute to the achievement of income equality and economic growth in regional economy.

Keywords: Regional Government, Capital Expenditure, Income Inequality, Economic Growth, Panel Data

1. Introduction

Social welfare is at the main function of national development. The Indonesian Government has committed on achieving it by strengthening the financial management in local government. Since the year of 2000, the handling of financial matters has been done by referring to fiscal decentralization and local autonomy policies (Law No. 22 of 1999 on

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regional administration and Law No. 25 of 1999 on fiscal decentralization). As a consequence, the government must utilize its capacity on strengthening the financial foundation in the regions in order to reach social welfare. It is hoped that this will boost the capacity of the regions on economic development.

Although economic development is a much broader concept than economic growth, the two forms a connection that represents the whole dynamic of an economy. A high economic growth represents the increase in output of production. Moreover, high economic growth means a change in added value in the utilization of factors of production. To achieve high economic growth, the financial capacity of the region in the form of government spending is crucial. Government spending includes all budgets allocated by the government to support development in various sectors. The greater the local government capacity on financing for capital expenditure, the greater the potential to drive economic activity in the region. In Keynes' macroeconomic framework, government expenditure is an important component in the formation of aggregate demand. Government expenditure positively affected the aggregate demand. While the aggregate demand positively correlates with the total output (Mankiw, 2010:293).

Government spending is a part of fiscal policy. According to Norris *et.al.* (2015), fiscal policy plays a determining role on microfinancial stability, fiscal redistribution, good income distribution, which eventually leads to high economic growth. Oriakhi and Ajayi-Ojo (2015) conclude that government spending encourages long-term economic development. This is supported by the evidence in Nigeria where there is an improvement in economic development due to the government spending in the period of 1981-2013. Similarly, Sabir *et al.* (2015) found that government spending has a positive and significant impact on economic growth in North Sulawesi Province, Indonesia.

Aside from the financial capacity of regions in the form of capital expenditure, economic growth can also be affected by the degree of income inequality among members of the community. The inequality of income reflects the uneven distribution of economic activity as well as access to economic resources for the community. As a consequence, there is an economic disparity in the society. Since only a small

percentage of people dominate and control the whole economy, there is a distortion in the implementation of development programs.

Kuznets (1955) stresses the importance of analysing the relationship between inequality and economic growth. He further relates this to the dynamics of economic development in the globalization era. There is a significant difference between developed and developing countries' Gross Domestic Product (GDP). GDP is measured from the total value of final goods and services produced within a given's country borders. Economic inequality may occur if the economic activity is centralized. Numerous studies have been conducted to analyze the linkages between economic inequality and economic growth in various countries.

Barro (2000) discovered an important evidence on economic inequality and economic growth. He found that in developing countries, there is a positive relationship between the two, while the opposite happens in developed countries. In their study, Galor and Moav (2004) concluded that a high degree of inequality could reduce the economic growth through deprivation of the ability of lower income households to stay healthy and the accumulation of physical capital and human capital. Likewise, Qin *et al.* (2006) found that income inequality can lead to a decline in GDP and sectoral growth in China. Davtyan (2014) discovered that income inequality has a negative effect on economic growth in the UK. Conversely, it proved to have a positive influence on economic growth in the USA and Canada. Previous studies show a conflicting result on economic inequality and economic growth. Economic inequality is a very sensitive issue in a country as it relates to the social welfare and social justice for its population. A high degree of income equality represents a high degree of economic disparities in a society.

Population plays an important role in economic growth. Solow's (Solow growth model) economic growth theory explains the role of the population as a proxy of human capital in influencing the ratio of inputs (Jajri and Ismail, 2010). Population reflects the existence of human resources as human capital that can contribute to the country's development. Human capital can form the knowledge that can then generate spillover effect and externality for human resource development in a country (Scutt, 2003). In the words of Hanushek (2013), increased human capital can accelerate the economic growth of a country.

However, previous studies on the correlation between human resources and economic growth provide different results. Fernandez and Mauro (2000) found there is a positive influence of human capital on economic growth. In contrast, Shen (2015) explicitly concluded that population growth negatively affects economic development in China, India and Indonesia. The rationale behind this is because of the high rate of population growth and the failure of conversion of human capital to become skilled labors. Similarly, Sacerdoti *et al.* (1998) state that human capital negatively affected economic growth.

In East Java Province, the dynamics of development in the national economy is influential to the local economy. The implementation of local autonomy policy is responded by the local government by making adjustments in the management of local finance, both from the revenue and expenditure sides. Yet, the limited financial capacity of the local government has resulted on the inequality of budget allocations among local governments in a country. Therefore, there is a difference in budget allocation on personnel, goods and service, and capital expenditures, which tightly associated to the financial capacity of the regions and the ability of local governments to prioritize its usage of funds.

In the provincial and district level, the financing for capital expenditure is smaller than that for personnel and goods and services expenditures. To illustrate, in 2015, the amount of direct expenditure in the form of capital expenditure in the regional financial component (APBD) of East Java Province is IDR. 2,565,964,145,679.00 (30.86%), while direct spending in the form of personnel, goods and services expenditure is IDR. 5,749,413,361,298.00 (69.14%) (Provincial Regulation of East Java No. 14 of 2014 On Revenue and Expenditure Budget of East Java Province Fiscal Year 2015). Differences in the budget allocation can affect the distribution of local people's income. For instance, the gini ratio in East Java Province in 2015 increased from 0.37 in previous year to 0.42 (www.jatim.bps.go.id).

Limited capital expenditure, broadened income inequality and high number of population are the problems faced by the local government in East Java Province. The growing economic inequality is an early warning for stakeholders to be able to immediately implement an

expansionary-oriented policy in the expansion of economic activity in the region. The financial capacity and income inequality between local governments are vary. As a result, the local governments have dissimilar economic growth.

The 1945 constitution of the Republic of Indonesia stated that the independence of Indonesia is intended to achieve social justice and social welfare. In the implementation of development in the local areas, the strengthening of fiscal capacity becomes an important factor to consider in order to improve financial capability in financing of capital expenditure. To eliminate income inequality, population control is crucial. People need to be given the freedom to actively participate in the local economic development, either as a factor of production or the one who utilize the results of development.

Hence, this study aimed to analyze the relationship between capital expenditure of local governments, income inequality, total population and economic growth in various regions in the East Java Province, Indonesia.

2. Methodology

This research employed quantitative method to analyze the interaction of the variables. The research objects are districts/cities in East Java, Indonesia that is made up of 38 regions in the period of 2011-2015. The study employed secondary data of economic growth which is proxied by Gross Regional Domestic Product, capital expenditure, population and income inequality which all were obtained from the Regional Central Statistics Agency (BPS) in East Java Province (<http://jatim.bps.go.id>). This study employed Ordinary Least Square (OLS) with panel data approach to estimate empirical model. There are three models of panel data as follows (Baltagi, 2005):

a. Pooled Least Square Approach (PLS). The estimation of the model as follows:

b.

$$Y_{it} = \alpha_i + \beta_i + X_{it} + \varepsilon_{it} \quad (\varepsilon_{it}=0) \quad (1)$$

In which, Y variable is economic growth (proxied by Gross Regional Domestic Product), X variables are capital expenditure (regional

government budget), income inequality (measured by gini ratio coefficient), and population.

c. Fixed Effect Approach (FE): An approach that measured the possibility of the researchers on facing omitted variables. The general model of FE as follows:

$$Y_{it} = (\alpha_{it} + u_i) + X'_{it} \beta + v_{it} \quad (2)$$

In panel data, fixed effect model assumed that the slope coefficient is constant. However, the intercept is varied in one time. The v_{it} notation represents the residual (disturbance) of panel data model

d. Random Effect Approach (RE). The general model of RE as follows:

$$Y_{it} = \alpha_i + \beta X_{it} + u_{it} + \lambda_i \quad (3)$$

Where λ_i notation is the residual from crosssection observation.

The estimation model used during panel data analysis as follows:

$$GRDP_{it} = \alpha_i + \beta_i + CAPITAL_{it} + GINI_R_{it} + POP_{it} + \epsilon_{it} \quad (\epsilon_{it}=0) \quad (4)$$

In the log natural form, the estimation model can be written as:

$$LGRDP_{it} = \alpha_i + \beta_i + LCAPITAL_{it} + GINI_R_{it} + LPOP_{it} + \epsilon_{it} \quad (\epsilon_{it}=0) \quad (5)$$

Where:

GRDP is Gross Regional Domestic Product

CAPITAL is capital expenditure

GINI_R is gini ratio

POP is total population

This study utilized the Hausman test to determine which method to choose between fixed effect and random effect. The Hausman test can

be done by using Chi Square formula. The hypothesis of the Hausman test is:

H0 = random effect model

H1 = fixed effect model

If the value of Chi Square count $>$ Chi Square table, we reject the null hypothesis (H0). If the value of Chi Square count $<$ Chi Square table, we accept H0. The decision on whether to accept or reject the null hypothesis can also be done using the p value of Chi Square coefficient. If the value is less than α (eg $\alpha = 1\%$), we accept the null hypothesis. Hence, we selected the fixed effect model as the approach.

3. Results And Discussion

3.1 Development in Gross Regional Domestic Product

The dynamics of economic development of East Java Province in the period 2011-2015 is indicated by economic indicators in 38 districts / municipalities. During that time, the Indonesian national economy was pressured by the global economic slowdown. As research have shown, external shocks in the international economy may badly affect the country's economic development. External shocks are marked by the volatility of US Dollars currency exchange, the slowdown of global economy, and low oil prices.

In the period of 2011-2015, the regional economic indicators (Gross Regional Domestic Product (GRDP), Capital Expenditure (CAPITAL), population (POP) and Gini Ratio (GINI_R) have experienced fluctuation. GRDP developments provide information on the achievement of outputs generated in the process of economic activity in various districts / cities in East Java Province. GRDP represents the economic growth of a region. The findings signify that output disparities (GRDP) are generated in the regional economy. Moreover, manufacturing sector has a positive influence on GRDP as areas without the support of industry excellence have slightly lower GRDP compared to those with industrial support (Surabaya City, Kediri City, Gresik Regency, Pasuruan Regency and Sidoarjo Regency). The development

of Gross Regional Domestic Product of regencies/cities in East Java is presented in Table 1.

Table 1: The Development of Gross Regional Domestic Product of Regencies/Cities in East Java, Indonesia for the Period of 2011-2015 (IDR Billion)

No	Region	2011	2015	No	Region	2011	2,015
1	Pacitan Regency	7,592	11,591	20	Magetan Regency	9,231	13,876
2	Ponorogo Regency	9,960	14,913	21	Ngawi Regency	9,535	14,995
3	Trenggalek Regency	8,944	13,632	22	Bojonegoro Regency	18,682	28,910
4	Tulungagung Regency	18,860	28,415	23	Tuban Regency	30,638	47,796
5	Blitar Regency	18,013	26,776	24	Lamongan Regency	18,265	28,831
6	Kediri Regency	20,422	30,479	25	Gresik Regency	58,,588	93,263
7	Malang Regency	46,975	73,843	26	Bangkalan Regency	9,429	14,,518
8	Lumajang Regency	16,079	24,457	27	Sampang Regency	8,511	12,930
9	Jember Regency	37,160	56,377	28	Pamekasan Regency	7,929	12,312
10	Banyuwangi Regency	36,951	60,219	29	Sumenep Regency	13,283	21,117
11	Bondowoso Regency	9,553	14,485	30	Kediri City	64,018	97,444
12	Situbondo Regency	9,536	14,796	31	Blitar City	3,183	4,819
13	Probolinggo Regency	16,875	25,678	32	Malang City	34,968	51,828
14	Pasuruan Regency	69,538	104,275	33	Probolinggo City	5,377	8,,072
15	Sidoarjo Regency	93,073	146,251	34	Pasuruan City	v3,989	5,949
16	Mojokerto Regency	38,692	58,818	35	Mojokerto City	3,312	4,881
17	Jombang Regency	19,472	29,148	36	Madiun City	6,813	10,192
18	Nganjuk Regency	12,715	19,125	37	Surabaya City	261,768	406,191
19	Madiun Regency	9,115	13,871	38	Batu City	7,315	11,510

Source: BPS of East Java, 2016

Table 1 shows that Surabaya has the greatest GRDP value in East Java. In 2015, Surabaya's GRDP reaches IDR 406,191 billion. Sidoarjo Regency is on the second place with IDR 146,251 billion. Whereas other districts/cities such as Blitar City has GRDP of 2015 amounting to IDR 4,819 billion. Similarly, GRDP of Mojokerto City only reached IDR 4,881 billion. This disparity in GRDP values illustrates the different economic capacities of districts/cities in East Java.

The inequality in GRDP occurs due to different endowment factors among districts/cities in East Java. Spatial-integrated cities with centralized economic growth have higher economic growth than areas that are far from the center of economic growth. The economic growth in East Java is largely supported by the manufacturing industry sector which is concentrated in the industrial area. Industrial areas are located in Pasuruan, Surabaya, Kediri, Gresik, and Sidoarjo. Growth in the industrial sector is still an important factor in increasing economic growth in various districts/cities in East Java.

3.2 The Development of Gini Ratio

The development of gini ratio reflects the income equalization among society. The higher the gini ratio value, the higher the income inequality happens among individuals. Meanwhile, the lower the gini ratio value, the lower the income inequality occurs among society. In the period of 2011 - 2015, the development of gini ratio in the economy of East Java is presented in the table 2:

Table 2: The Development of Gini Ratio of Regencies/Cities in East Java for the Period of 2011-2015

No	Region	2011	2015	No	Region	2011	2015
1	Pacitan Regency	0.34	0.33	20	Magetan Regency	0.31	0.34
2	Ponorogo Regency	0.29	0.36	21	Ngawi Regency	0.30	0.34
3	Trenggalek Regency	0.34	0.37	22	Bojonegoro Regency	0.27	0.32
4	Tulungagung Regency	0.32	0.36	23	Tuban Regency	0.28	0.29
5	Blitar Regency	0.33	0.33	24	Lamongan Regency	0.29	0.30
6	Kediri Regency	0.31	0.34	25	Gresik Regency	0.33	0.31
7	Malang Regency	0.33	0.38	26	Bangkalan Regency	0.30	0.32
8	Lumajang Regency	0.27	0.29	27	Sampang Regency	0.26	0.30
9	Jember Regency	0.31	0.33	28	Pamekasan Regency	0.28	0.34
10	Banyuwangi Regency	0.32	0.34	29	Sumenep Regency	0.27	0.26
11	Bondowoso Regency	0.29	0.32	30	Kediri City	0.39	0.40
12	Situbondo Regency	0.26	0.33	31	Blitar City	0.34	0.37
13	Probolinggo Regency	0.28	0.30	32	Malang City	0.36	0.38
14	Pasuruan Regency	0.28	0.32	33	Probolinggo City	0.33	0.36
15	Sidoarjo Regency	0.31	0.35	34	Pasuruan City	0.37	0.39
16	Mojokerto Regency	0.27	0.31	35	Mojokerto City	0.36	0.36
17	Jombang Regency	0.37	0.32	36	Madiun City	0.33	0.38
18	Nganjuk Regency	0.31	0.35	37	Surabaya City	0.37	0.42
19	Madiun Regency	0.29	0.32	38	Batu City	0.32	0.36

Source: BPS of East Java, 2016

The gini ratio of districts/cities in East Java Province in the period of 2011-2015 varies between 0.20-0.48. The economic and natural resources' difference between regions has resulted in dissimilar economic development. In 2011-2015, the income inequality fluctuates between 0.23 (Lumajang District in 2013) and 0.43 (Madiun City in 2013). The highest degree of inequality occurs in Surabaya and Kediri in 2015 with the gini ratio of 0.42 and 0.42, respectively. Low gini ratio can be found in agricultural-based areas. While high gini ratio can be found in large cities. This is due to the fact that they are supported by industrial and trade sectors.

Agricultural sector provides superior employment opportunities which can absorb the human capital in the rural areas. While urban areas, which tend to have more specific job requirements, could not fully absorb the human capital, which in the end results in high unemployment rate in the city. Urbanization occurs because people from the rural areas believe there are greater opportunities for them in the city. Since their competencies are not much needed in the urban areas, it leads to unemployment that eventually leads to income inequality.

3.3 The Development of Capital Expenditure

The capital expenditure in the regional finances (APBD) in the period 2011-2015 show disparities among districts in East Java. Figure 3 illustrates the development of capital expenditure.

Table 3: The Development of Capital Expenditure of Local Government in East Java for the Period of 2011-2015 (IDR Billion)

No	Region	2011	2015	No	Region	2011	2015
1	Pacitan Regency	144	132	20	Magetan Regency	148	214
2	Ponorogo Regency	128	286	21	Ngawi Regency	156	245
3	Trenggalek Regency	126	294	22	Bojonegoro Regency	119	624
4	Tulungagung Regency	97	356	23	Tuban Regency	210	313
5	Blitar Regency	160	364	24	Lamongan Regency	190	321
6	Kediri Regency	226	454	25	Gresik Regency	127	593
7	Malang Regency	185	544	26	Bangkalan Regency	290	409
8	Lumajang Regency	113	339	27	Sampang Regency	184	344
9	Jember Regency	210	544	28	Pamekasan Regency	162	448
10	Banyuwangi Regency	251	451	29	Sumenep Regency	132	336
11	Bondowoso Regency	170	319	30	Kediri City	106	354
12	Situbondo Regency	121	306	31	Blitar City	165	158
13	Probolinggo Regency	226	375	32	Malang City	160	306
14	Pasuruan Regency	236	429	33	Probolinggo City	107	151
15	Sidoarjo Regency	209	815	34	Pasuruan City	80	201
16	Mojokerto Regency	157	528	35	Mojokerto City	50	216
17	Jombang Regency	69	278	36	Madiun City	96	194
18	Nganjuk Regency	114	454	37	Surabaya City	308	2,132
19	Madiun Regency	121	250	38	Batu City	106	337

Source: BPS East Java, 2016

The amount of capital expenditure in local government budget financing reflects the fiscal capacity of the regions. High allocation of capital expenditure encourages the development of economic activities in all sectors. As depicted in Figure 3, Surabaya has the highest capital expenditure level compared with other regions in East Java. For instance, in 2015, the allocation for capital expenditure in Surabaya reaches IDR 2,132 trillion, while the other regions' allocation for capital expenditure is only in the range of IDR 200 - IDR 300 trillion.

The level of fiscal capacity has an impact on the capability in terms of financing capital expenditures. These are characterized by local

revenues sourced from large taxes and regional restitution. Districts/cities with high level of fiscal capacity usually have a comparative advantage such as manufacturing, trade, and service industries. Surabaya City became the region with the highest allocation of capital expenditure in East Java because it is supported by manufacturing, trade and hospitality, and financial services industry. Moreover, the local government ability on finding financial resources for development is also a major factor that contributed to the allocation of capital expenditure. On the other hand, the financial resources are derived from the development of economic activities in various sectors and in various regions.

3.4 The Development of Population

The distribution of population in East Java Province in the period of 2011-2015 is uneven. Surabaya has a larger number of population than other districts/cities in East Java Province. Several rationales of this phenomenon are the availability of natural resources, availability of economic activity, and location. This depicts the mobility of labor production factors across regions in the implementation of their economic activities. In 2011, from the total population in East Java Province amounted to 37,687,822 people, Surabaya accounted the largest percentage of the total population (7.4%) or 2,781,047 people. While Batu Town has the smallest number of population (0.5%) or 191,254 people. In 2015, from the total population of eastern Java province amounted to 38,847,561 people, Surabaya still possess the largest number of population (7.3%) or 2,848,583 people. While Batu Town has the smallest number of population of 200,485 people (0.5%).

Surabaya plays a role as the cause of urbanization in East Java Province. Due to its high economic development, manufacturing and service industries, as well as adequate infrastructures have put Surabaya into the 2nd largest city in Indonesia after Jakarta. Urbanization happens because of slow economic growth in the rural areas and the hope of having a more prosperous life in the urban areas. In 5 years period, the increase in the number of residents in East Java province amounted to 1,159,939 people spread in 38 districts / cities. On average, the population in East Java Province increased by 0.75% per year.

3.5 Data Analysis

This study utilized the Hausman test to determine which method to choose between fixed effect and random effect. The result shows that p value (chi square) is less than α equal 1% (probability 0.0000). Therefore, we accept the null hypothesis. Hence, the fixed effect model is selected as the approach for empirical estimation

After performing the Hausman test, we determined the estimation of panel data model using fixed effect method. The estimation results by using natural log model (Log) for fixed effect can be seen as follows.

$$\text{LGRDP} = 1918.53 + 22.005 \text{LCAPITAL} - 0.115 \text{GINI_R} - 0.073 \text{LPOP}$$

$$\begin{matrix} & (0.084) & (0.037) & (0.185) \\ & [260.77] * & [-3.11]** & [-0.40]*** \end{matrix}$$

Adjusted R square : 0.998

Prob (F-statistics) : 0.000000

Notes :

The number inside () is the standard of error

The number inside [] is the t statistic values.

*significant 1%

**significant at 5%

*** not significant

Table 4: Fixed Effect Coefficient

Fixed Effects (Cross)	Coefficient	Fixed Effects (Cross)	Coefficient	Fixed Effects (Cross)	Coefficient
_Pacitan—C	7.298573	_Pasuruan1—C	-13.74998	_Sampang--C	6.297016
_Ponorogo—C	4.843214	_Sidoarjo—C	-16.75981	_Pamekasan--C	6.820503
_Trenggalek—C	5.777586	_Mojokerto1—C	-8.218496	_Sumenep--C	1.759330
_Tulungagung—C	-1.316800	_Jombang--C	-1.571445	_Kediri2--C	-13.07895
_Blitar1—C	-0.743376	_Nganjuk--C	2.486639	_Blitar2--C	15.64931
_Kediri1—C	-2.010931	_Madiun--C	5.575545	_Malang2--C	-7.096612
_Malang1—C	-10.18012	_Magetan--C	5.537351	_Probolinggo2--C	10.70161
_Lumajang—C	0.207306	_Ngawi--C	5.014480	_Pasuruan2--C	13.60410
_Jember—C	-7.738919	_Bojonegoro--C	-1.364844	_Mojokerto2--C	15.38491
_Banyuwangi—C	-8.090597	_Tuban--C	-6.111153	_Madiun2--C	8.450349
_Bondowoso—C	5.173230	_Lamongan--C	-1.210411	_Surabaya2--C	-26.50580
_Situbondo—C	5.057268	_Gresik--C	-12.36734	_Batu2--C	7.582903
_Probolinggo1—C	-0.276416	_Bangkalan--C	5.170786		

As presented above, capital expenditure (CAPITAL) has a positive and significant impact on regional economic growth (GRDP) in East Java Province. Economic inequality (GINI_R) has a negative and significant effect on the economic growth of districts in East Java. While the number of residents (POP) does not affect the economic growth of districts/cities in East Java Province. The value of the determination coefficient (adjusted R square) of 99% indicates that the independent variables (capital expenditure, economic inequality, and population) can explain the variation of the dependent variable (economic growth). Altogether the independent variables significantly influence the dependent variable.

The results indicate that the implementation of regional autonomy policy in the form of discretion in local financial management encourages local governments to increase the allocation of capital expenditure budget in regional finance. The discretion relates to the delegation of authority from the central government to the local government in terms of financial management (both revenue and budgetary sources) referring to the relevant regulations. The local governments can determine which objects need to be taxed and the money can be used for retribution. In terms of the usage of financial budget, the local governments can determine the types of expenditures relevant to the priority of the local economic development. Although there is variation on regional capability in allocating capital expenditure, it can be the stimulus in the local economic development, which ultimately leads to the increase of GRDP.

As a barometer of East Java Province's economic performance, Surabaya is recorded as the region with the greatest fiscal ability compared with other districts / cities. The fiscal capability can be measured from local revenue, which is derived from taxes, retribution, and other sources of revenue which are considered as legitimate. The improvement on regional fiscal capability starts with the implementation of policy in the form of Law on Regional Autonomy in Indonesia. Fiscal capability is accompanied by an increase in the allocation of capital expenditures for the financing of development programs in districts/cities in East Java Province. The financial management process and budget allocation for financing of capital expenditure in regional development do likewise.

The results of this study are in line with the macroeconomic mainstream developed by John Maynard Keynes (Keynesian Macroeconomic Model), where government expenditure boosts the national income (Gross Domestic Product) through the increase of aggregate demand components, namely consumption, investment, government expenditure and net exports. Originally, the Keynesian model is only relatable to the situation where a country experiences financial crisis. After being developed over time, the model is relevant to any financial/economic circumstances. This means that the force of demand and supply, or so-called market mechanism, cannot solve the economic problems. The government needs to intervene in the form of government spending for the fulfillment of public goods.

In the context of regional development in Indonesia, the implementation of the Law on Regional Autonomy since 1999 increases the allocation of local government spending. Moreover, discretion and active participation of communities in local economic development can have a butterfly effect on financial performance and economic growth (Renyaan *et al.*, 2012; Suwandi and Warokka, 2013). The capital expenditure must be distributed to various sectors in the local economy. Keynes' concept has become a theoretical reference in addressing the problem of low economic growth.

The findings of this study are in conformity with the research by Ajayi-Ojo (2015) and Sabir *et al.* (2015). Both studies link the impact of government spending on economic growth. While the present study used expenditure data for capital expenditure due its specificity, the previous studies (Ajayi-Ojo, 2015; Sabir *et al.*, 2015) only used aggregate expenditure data. Capital expenditure data is more relevant since higher capital expenditures would mean an increase in the economic growth.

The study findings confirm the results of previous studies on the relationship between economic inequality and economic growth (Barro, 2000; Galor and Moav, 2004; Qin *et al.*, 2006). The results indicate that the proxy of economic growth using GRDP data is capable on explaining the relationship between the two variables. Gini ratio can explain the correlation between high income inequality and the decline in GRDP in districts in East Java. Kuznet made the basic theory of the relationship between economic inequality and economic growth. He states that the two has an inverted U-shaped curve relationship. Initially,

economic development and income distribution tend to have the same direction (positive relationship), but after reaching a certain point, the relationship becomes unidirectional (negative relationship). In addition, the proxy for economic growth using GRDP indicators (in IDR nominal units) describes the performance of the real economy of the region.

The findings in this study are in accordance with previous studies on the negative relationship between income inequality and economic growth (Barro, 2000; Cingano, 2014). The present study provides empirical evidence of the negative influence between income inequality and economic growth. Increasing inequity leads to an increasingly expensive human and physical capital investments. As a result, the potential of economic resources on boosting the economic growth cannot be optimized.

In East Java, where the economy is supported by the industrial sectors, it has the positive effects on providing large employment opportunities and significant economic growth. However, the new employment opportunities cannot fully absorb all the human capital in the region. Urbanization happens because of slow economic growth in the rural areas and the hope of having a more prosperous life in the urban areas. For the same sector, the revenues received by an employee in the rural area is much smaller than in the urban area.

Yet, the present study results are in contradiction with the Solow Growth Model. We found that population, as a form of human capital, has not made a satisfactory contribution to the economic growth. The increase in unemployment rate happens because the economic activities are unable to provide employment to all human capital. This finding is dissimilar to those discovered by Hanushek (2013) and Scutt (2003). The excess of human capital can disrupt the economy and will produce negative effects on economic growth (Sacerdoti *et al.*, 1998; Shen, 2015) in East Java Province.

The local governments in districts in East Java have done their best on tackling the problem of income inequality. Several of their programs are providing free facilities on public services such as education and health, which are financed by the local government finances (APBD). In addition, food price control programs are continuously promoted to

ensure food availability and affordability for the population. Therefore, although income inequality tends to increase in various districts / cities in East Java within the period of 2011-2015, but policies in the context of fiscal redistribution can minimize the negative impact of income inequality. Likewise, population control needs to be improved in order to ensure the provision of employment to all the human capital.

4. Conclusion And Recommendation

Implementation of regional autonomy policy in Indonesia brings changes in financial management in local governments. Local governments have the flexibility to increase local revenue and allocate it in accordance with the priority scale in regional development. Economic growth is still one of the main indicators in measuring the performance of economic development. The level of economic growth is determined by internal and external factors. Based on classical growth theory, neo classical and endogenous, the main factor of economic growth is capital and human resources.

To conclude, the allocation of local government capital expenditure is positively affected economic growth in 38 districts/cities in East Java Indonesia during the period of 2011-2015. Income inequality is negatively affected economic growth in the region. While the population does not have a significant effect on economic growth in 38 districts/cities in East Java Province. Therefore, based on the findings, we recommend the government of East Java Province to increase the allocation of capital expenditure in all districts/cities. Moreover, the government also need to expand its fiscal redistribution policy on public services needed by the citizens (education, health, and transportation). These improvements could eventually contribute to the achievement of income equality and economic growth in regional economy. Conversely, we found that high taxation in low-income groups is less encouraging in increasing aggregate demand. Therefore, the imposition of the tax rate is expected to be categorized on the economic capacity and the level of people's welfare. Population control needs to be done to increase people's access to the improvements made. This effort can be done by intensifying the family planning program and dissemination of population to the community in various regions.

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