

The Effect of Government Capital Expenditure and Private Investment on Social Welfare

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Abstract

The main purpose of this study is: 1. Examine and analyze the effect of government capital expenditure on social welfare; 2. Examine and analyze the effect of private investment on social welfare. Technical analysis is path analysis, regression OLS is used with data panel. Exogenous variables are government capital expenditure and private investment. Endogenous variables are output, labor usage and social welfare, where output and labor usage are mediator variables. The statistical results show that all relationship have a significant. Private investment have more effect on social welfare rather than government capital expenditure. There are two empirical finding from this study: First finding, there is substitution effect between private investment and labor usage, more private investment, less labor usage. On the other hand, there is output effect between output and labor usage, more output more labor usage. Total effect of private investment on labor usage is positive. Second finding, labor usage have a negative relationship to social welfare, higher labor usage, lower social welfare.

Keywords: capital expenditure, private investment, output, labor usage, social welfare

1. Introduction

The system of regional autonomy for regencies/cities in Indonesia started since 1999. In the era of regional autonomy, local governments are given the freedom to develop its economy for the welfare of the community. One of the local authorities is to develop and implement the budget in accordance with the capabilities and potential of each region. Each region must also be able to increase private investment by way of exploring the region as much as possible so as to attract investors.

One type of spending budget that is interesting to study capital expenditure. Capital expenditure is the government spending which is the purchase or procurement of capital goods, which will increase the production capacity of the economy. The effect of increasing the production capacity is an increase in output or Gross Regional Domestic Product (GRDP). In addition to improving output, capital expenditure will increase the use of labor in the region because of the regions open unemployment rate in Indonesia is still high. Data from BPS (2015) showed that the average rate of unemployment in the regency / city in East Java is still high, at an average of between 2003 to 2012 amounted to 6.38%, where for the city is higher than in the regency.

Government capital expenditure will also increase private investment as a result of capital expenditure in the form of many vital infrastructure that is needed in the economy such as roads, bridges, street lighting, ports, irrigation and so on. Instead of high growth in private investment, will stimulate the government to increase capital spending to improve services in the form of economic infrastructure, especially for local governments that implement a development strategy "development by shortage". Together with capital expenditure, private investment will also increase output and employment.

The next result of the increase in output and employment is welfare. Social welfare can be measured by the achievement of Human Development Index (HDI). If output increases, people's income will increase. Increasing people's income will be converted into various forms of welfare society, namely in the form of increased purchasing power, health or life expectancy higher birth and higher education levels. Similarly, if the number of people working more, more and more parts of the community which enjoy welfare.

Previous studies, especially in Indonesia, has not been strong (robust) proves that the role of public and private investment can improve the welfare of the community, so it can not be the basis of strong government policies. Need to further study the use of a longer period of time, the method is more precise and more in-depth analysis. Hence the purpose of this study is to prove and analyze: 1. Is government capital expenditures affect output, labor and social welfare ?; 2. Is the private investment affect the output, use of labor and further the welfare of society?

2. Literature Review

2.1. Government Spending and Output

In Keynes's theory (2014), the level of economic activity is determined by the aggregate expenditure. In general, the aggregate expenditure in a given period is less than the aggregate expenditure necessary to achieve the level of full employment. This is due to the investment made by the employer less than the current level of savings at full employment. To achieve the necessary state government policies to increase aggregate spending, in which the most important is fiscal policy.

Following thought Keynes, Samuelson and Nordhaus (2001), detailing that the national income (Y) is the equation of the components of aggregate demand in an economy, which consists of the consumption component (C), investment (I), government spending (G) and Net Exports (X), written mathematically:

$$Y=C+I+G+X$$

Changes in the components of aggregate spending will affect the balance of national income. For example there is a change in government expenditure component G is larger or smaller than before, will affect the balance of national income multiplier (k) multiplied by the change in G, written:

$$\Delta Y=m. \Delta G$$

where m is the multiplier whose value is $1 / \text{MPS}$ or $1 / (1-\text{MPC})$. MPC is the marginal propensity to consume, the additional consumption as a result of additional national income ($\Delta C / \Delta Y$), the amount of which varies for each economy

depends on people's behavior is extravagant or thrifty. The more extravagant, the higher the value of the MPC. While the additional revenue saved MPS ($\Delta S / \Delta Y$). The more frugal society, the higher the value of MPS.

2.2. Investment and Output

Following Keynesian, investment changes will also lead to changes in the national income of the investment changes multiplied by the multiplier:

$$\Delta Y=m. \Delta I$$

Further Harrod and Domar (cited in Jhingan, 1983), so that the economy can grow depending on the amount of savings and investment efficiency (k). If s is S / Y and k is the K / Y , where K is capital, then according to the Harrod-Domar:

$$\Delta Y/Y=s/k$$

k is also called Capital Output Ratio (COR), which shows how much the efficiency of capital to produce output (Y). $\Delta Y / Y$ referred to as economic growth. The lower the k, the higher the economic growth. If a particular community savings ratio in the short term, economic growth is determined by how much the efficiency of capital use (COR). In the short term COR is fixed, but in the long run turn influenced by technological, institutional, attitudes and so on.

2.3. Investment and Labor Usage

Developing countries are characterized by the dualism of the economic system, where there is subsistence economy and capitalist economy. Subsistence economy characterized by labor costs are very low due to excess manpower so that additional new workers will not increase output, as well as the reduction of the workforce, will not reduce output. These conditions inspired Lewis (cited in Jhingan 1983) to create a model of unlimited labor supply in developing countries.

Lewis argue due to an excess of labor in the subsistence sector, the value of marginal product in the subsistence sector is zero. The workers will voluntarily switch to the capitalist sector in case of higher wages in the capitalist sector than in the subsistence sector. The amount of wages in the capitalist sector that is capable of moving the movement of workers to the capitalist sector, according to Lewis is 30% higher than the subsistence wage.

The development process will continue to run with the reinvesting of capital from surplus income or it could be from bank loans. Creation of capital from bank loans will also increase output and employment. But according to Lewis, the creation of bank credit capital will raise the price for a while. Prices will go down after the production of consumer goods began to walk because the capital of the bank credit. The process of labor utilization will stop until the entire workforce surplus absorbed capitalist sector, the labor supply curve becomes tilted from left to right.

2.4. *Output and Labor usage*

Okun's Law states that in the short term level of output and unemployment are closely linked. Okun (cited in Dornbush et al., 2008; Samuelson and Nordhaus 2001) explains that 1 point additional of unemployment will reduce GDP by 2 point or in other words a decline in GDP of 2% will cause unemployment 1%. The inverse relationship between GDP growth with the unemployment difficult consequences of the recession. When output declines, companies need less labor input, so that new workers are not needed and long dismissed workers. When output increases, people's income increases, the demand for goods and services increases. This condition responded by entrepreneurs with business expansion to increase profits by increasing the use of labor.

2.5. *Welfare Theory*

Public welfare can not be measured only from economic factors, but also on other factors, for example whether there is freedom of choice, how high levels of health and education in a community. Definition of welfare which covers a broader dimension is the welfare theory of Amartya Sen, where Sen (cited in Pressman 2006) states that the use as a Pareto optimal welfare criteria may bring problems. For example, in a case where there are only a handful of rich people and many others who hunger can be a Pareto optimal, because the situation can not be corrected without taking the income of rich people and reduces their satisfaction. The number of hungry people is clearly not a desirable condition.

Sen proposed a welfare approach centered on the ability. Human well-being depends on things that can be done well. The maximum human welfare when humans can read, eat, and can provide the right vote. An important part of human well-being is the amount of choice that belongs to the people and the freedom to choose among these options. Sen welfare implications of this theory is the measure of the success of economic development can not only be seen from the level of income per capita, but there must be a measure that is more multidimensional eg Human Development Index (HDI). Similarly, more and more people are working, the lower unemployment, higher welfare should also humans, since the results of development enjoyed by more people than just a handful of people.

2.6. *Previous Studies*

Studies on the relationship between public and private investment, output, labor and welfare results are highly variable, especially in Indonesia. Here are some summaries of the results of previous studies:

There is a positive relationship between public investment to output, for example on research Wesselhoff (2013), Onuorah and Akujuobi (2012), Ener et al. (2013). However, there are several studies that concluded that government investment does not significantly affect output, especially in the regencies / cities in Indonesia such as the results of a study by Badruddin (2012 / dissertation is not published) and Hendarmin (2012).

The relationship of government spending with the unemployment rate, Murwipachena (2013) in his study in South Africa proves that the government investment spending is negatively related to the unemployment rate. In Indonesia, Hardiyanti study (2013) proves that government spending has positive influence on employment opportunities that exist in Indonesia.

In the case of private investment to economic growth and employment, study by Ramli and Andriani (2013) in South Sulawesi resulted in the conclusion that the domestic investment effect on economic growth, but foreign investment has no significant effect. The study by Yunani and Mursinto (2014), lead to the conclusion that private investment has no effect on economic growth, but the effect on employment in South Kalimantan, Indonesia. Hendarmin study (2012) in West Kalimantan, Indonesia, resulted in the conclusion that private investment variables negatively related to economic growth, but not related to employment.

In terms of output and unemployment, previous studies prove that there is a negative relationship between output by unemployment, such as the study results Bankole and Fatai (2013), Iswanto and Maski (2013), Ball, Leigh, and Loungani (2013). There is a different discovery of output-unemployment rate coefficients, depending on the country, time and method of study. Results of previous studies stating that the output is not significantly associated with the use of labor as the result of research Hendarmin (2012), where Hendarmin use 2005-2009 panel data in the regencies / cities in West Kalimantan, Indonesia, with the OLS regression method.

From the results of previous studies the relationship between real output with welfare. Studies by Kula et al. (2010) for OECD countries, connecting between real GDP and various indices of happiness, the results concluded that there is a correlation between real GDP compared with the happiness among the various indices of happiness with happiness. However, some studies emphasize that the size of the welfare is different all the time depending on the level of people's income, for example, a study by Easterlin (1995). Another study conducted by Clarke and Islam (2005), tried to link the health and welfare of the community in Thailand,

concluded that there was no relationship between them.

The relationship between the output and the welfare of the people represented by the HDI, is still questionable. Study by Khodabakhshi (2011), connects between the GDP per capita in India with HDI, has not proved the existence of a linear relationship. Study by Poddar et al. (2014), against 6 countries including USA, UK, India, Australia, South Africa and Brazil to prove that there is no linear relationship between GDP with indicators HDI rank.

Unemployment causes a high risk of poverty, then poverty leads to lower welfare, for example is a study by Saunders (2002). Studies by Ohtahe (2012) concluded that unemployment causes a decrease in welfare. However, another study in which unemployment does not lead to a decrease in the joy of life, only comfort is reduced, for example, a study by Böckerman and Iilmakunnas (2005). Studies by Sulistyawati (2012) in Indonesia concluded that employment is not related to the welfare of the people represented by the HDI.

3. Research Method

3.1 Research Variables

This study uses five variables, two exogenous variables are government capital expenditures (x_1) and private investment (x_2), while the third is an endogenous variable output (y_1), labor usage (y_2) and social welfare (y_3). 2 endogenous variables, namely output (y_1) and labor usage (y_2) is a mediator variable.

Government capital expenditure (x_1) is defined as the spending of local governments for procurement or purchase of tangible fixed assets useful life of more than 12 months, the budgeted capital expenditure in the budgets of regencies / cities in East Java Province, Indonesia. Because there is a difference between the budget and realization, then that is used is the realization, because the value is affecting the economy. Government capital expenditure is stated at the value of the rupiah at the prevailing price.

Private investment (x_2) is defined as the value of investments made by citizens of Indonesia, which is the location of the project in the regencies/city in East Java Province, Indonesia. The value of private investment represented by the investment credit reported by banks, which is the location of the project in the regencies / cities in East Java Province, Indonesia. Private investment is stated at the value of the rupiah at the prevailing price.

Output (y_1) is represented by the GRDP, which is defined as the amount of goods and services produced by the regencies/cities in East Java, Indonesia, is converted in constant prices. GRDP calculation method used is the method of production or value added. GDP is expressed in the value of rupiah at constant 2 000 price.

Labor usage (y_2) is defined as the number of people aged 15 years and over who worked in every regencies/cities in East Java, Indonesia on a year. Definition of work used in this study is the economic activity that is carried out by a person with intent to obtain or help obtain revenue or profit, at least 1 hour (uninterrupted) during the past week. The activity also includes activity pattern unpaid workers who helped in a business/ economic activity. Labor usage expressed as the number of people.

Social Welfare (y_3) is defined as a condition in which people are able to achieve what their wants. Public welfare represented by the Human Pembangunan Index (HDI) in the regencies/ cities in East Java province, Indonesia.

3.2 Conceptual Framework and Hypotheses

Based on the literature review, the conceptual framework depicted in Figure 1

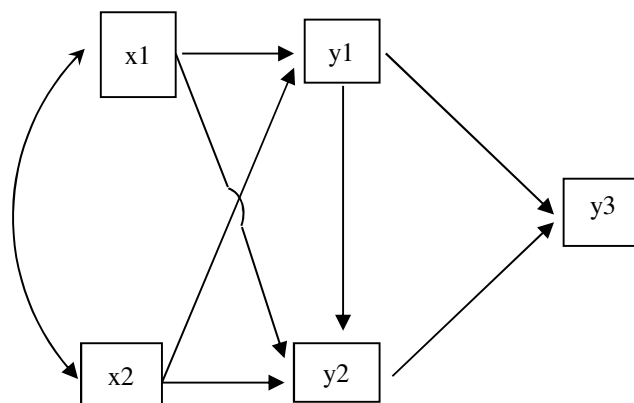


Figure 1. Conceptual Framework of Research

The conceptual framework describes the functional relationship between the variables. In accordance with the conceptual framework, the research hypothesis is formulated as follows:

1. Hypothesis 1: government capital expenditure (x1) significantly affect output (y1)
2. Hypothesis 2: government capital expenditure (x1) significantly affect labor usage (y2)
3. Hypothesis 3: private investment (x2) significantly affect output (y1)
4. Hypothesis 4: private investment (x2) significantly affect labor usage (y2)
5. Hypothesis 5: output (y1) significantly affect labor usage (y2)
6. Hypothesis 6: output (y2) significantly affect social welfare (y3)
7. Hypothesis 7: labor usage (y2) significantly affect social welfare (y3)
8. Hypothesis 8: Government capital expenditure (x1) has indirect effects on social welfare (x3)
9. Hypothesis 9: private investment (x2) has indirect effect on social welfare (y3)

3.3 Location, Time and Data Study

Study location is in regencies/cities in East Java Province, Indonesia. A sample is 37 of the 38 regencies/cities, because the original purpose is the study population. Taken 37 pieces from 38 because has many lack data in one cities. Time series data for 10 years, from year 2 003 to 2 012, thus forming panel data (pool data), where the data required is $37 * 10 \text{ years} * 5 \text{ variable} = 1850$ data. The data used is secondary data obtained from the Central Bureau of Statistics Indonesia, Central Bureau of Statistics East Java Province and the Ministry of Finance of the Republic of Indonesia.

3.4 Statistical Technics

The statistical techniques used in this study is the path analysis, adjust the purposes of research and existing conceptual framework. According to Rutherford (cited in Sarwono 2007: 1) pathway analysis is a technique for analyzing the causal relationship that occurs in multiple regression if the independent variables affect the dependent variable not only directly, but also indirectly.

Regression analysis was used to perform path analysis (path analysis). OLS is a simple method to combine data time series with cross section data. OLS method produces highly exogenous independent variables (stickly exogenous), which means it is not affected by the amount of data μ_{it} error term today, yesterday, or in the future. OLS uses the assumption independently distributed error term, average equal to zero and constant variance. (Gujarati and Porter 2013).

After subsequent regression analysis calculated path coefficient. Path coefficients or standardized regression coefficient is called beta that shows the direct influence of the independent variables on the dependent variables

in a model of certain pathways. If a model has one or more variables causes the coefficient of its lines is a partial regression coefficients which measure the magnitude of the effect of one variable against another in a particular pathway models. The coefficients can be used to parse path correlations in a model into direct and indirectly influence, which is reflected by the arrows-arrows in the path diagram. It is based on the rule that in a linear system, the effect causes the total of a variable i to variable j is the sum of all paths from i to j.

Based on the conceptual framework in Figure 1, can be made of 3 pieces substructure as follows:

Substructure 1:

$$Y1_{it} = \beta_1 + \beta_2 X1_{it} + \beta_3 X2_{it} + u_{it}$$

Substructure 2:

$$Y2_{it} = \beta_1 + \beta_2 X1_{it} + \beta_3 X2_{it} + \beta_4 Y1_{it} + u_{it}$$

Substructure 3:

$$Y3_{it} = \beta_1 + \beta_2 Y1_{it} + \beta_3 Y2_{it} + u_{it}$$

Furthermore, the hypothesis could be tested to determine the hypothesis is accepted or rejected. F test to see the overall effect of variable or test the linearity of the model was built. T test to see the significance of the effect of exogenous variables on endogenous variables or to see whether or not a significant path coefficients partially. This test uses H0: there is no linear relationship between exogenous with endogenous variables, whereas H1: there is a linear relationship between exogenous with endogenous variables. Significance level used was 0.05.

4. Results and Discussions

4.1 Results

For the cure of diseases autocorrelation and heteroscedasticity, then 3 substructures held transformation so the result is as follows:

Substructure 1:

$$Lny1_{it} = \beta_1 + \beta_2 Lnx1_{it} + \beta_3 Lnx2_{it} + u_{it}$$

Substructure 2:

$$Lny2_{it} = \beta_1 + \beta_2 Lnx1_{it} + \beta_3 Lnx2_{it} + \beta_4 Lny1_{it} + u_{it}$$

Substructure 3:

$$Lny3_{it} = \beta_1 + \beta_2 Lny1_{it} + \beta_3 Lny2_{it} + u_{it}$$

Results of regression of substructure 1 given in Table 1 as quotations SPSS output.

Table 1. Regression Results Substructure 1

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5.046	.243		20.788	.000
Ln_x1	.331	.058	.237	5.685	.000
Ln_x2	.378	.028	.570	13.672	.000

a. Dependent Variable: Ln_y1

Meaning of the regression results are as follows: government capital expenditure (x1) affect output (y1) significantly positive correlation, evidenced by a significant path coefficient of 0.237 at α level of 0.000. Private investment (x2) affect output (y2) significantly with positive correlation, evidenced by a significant path coefficient of 0.570 at α level of 0.000.

Table 2. Regression Results Substructure 2

Model		Unstandardized		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.596	.314		24.178	.000
	Ln_x1	.183	.053	.158	3.443	.001
	Ln_x2	-.087	.030	-.157	-2.918	.004
	Ln_y1	.572	.046	.687	12.492	.000

a. Dependent Variable:

Results of regression of substructure 2 are given in Table 2 as SPSS output. Meaning of the regression results are as follows: government capital expenditures (x1) affect labor usage (y2) significantly with positive correlation, evidenced by a significant path coefficient of 0.158 at α level of 0001. Private investment (x2) affect labor usage (y2) significantly with negative correlation, evidenced by a significant path coefficient of -0.157 at α level of 0.004. Output (y1) affect labor usage (y2) significantly with positive correlation, evidenced by a significant path coefficient of 0.687 at α level of 0.000.

Results of regression of substructure 3 are given in Table 3 as SPSS output. Meaning of the regression results are as follows: output (y1) affect social welfare (y3) significantly with positive correlation, evidenced by the path coefficient of 0.715 significant at α level of 0.000. Labor usage (y2) affects social welfare (y3) significantly with negative correlation, evidenced by a significant path coefficient of -0.783 at α level of 0000.

Table 3. Regression Results Substructure 3

Model		Unstandardized		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.723	.052		90.448	.000
	Ln_y1	.058	.004	.715	13.132	.000
	Ln_y2	-.077	.005	-.783	-14.385	.000

a. Dependent Variable: Ln_y3

Based on the statistical results then can be made pathway diagram as illustrated in figure 2. The solid line shows a positive relationship while the dotted lines indicate a negative relationship.

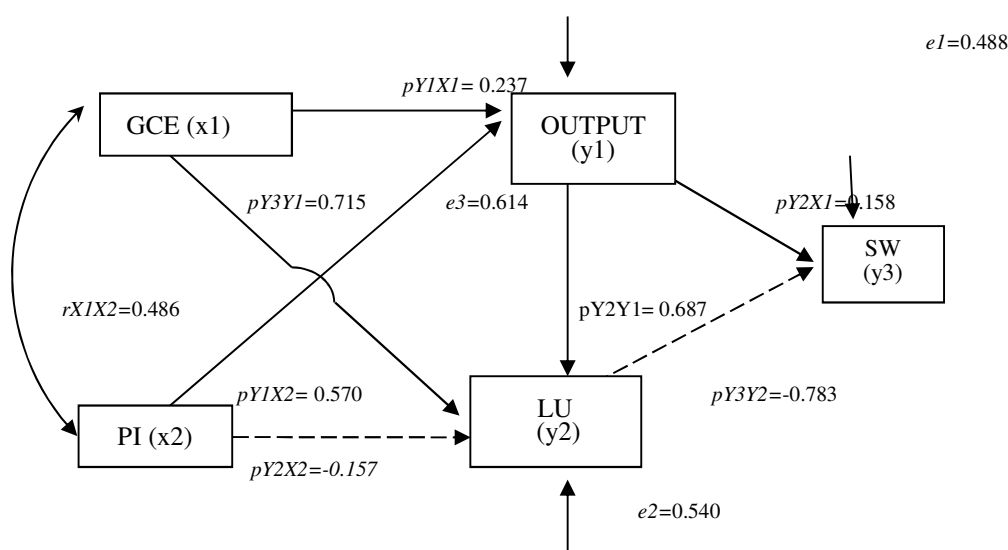
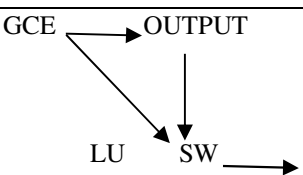


Figure 2. Path Diagram

Where: GCE=Government Capital Expenditure, PI=Private Investment, LU=Labor usage, SW=Social Welfare.

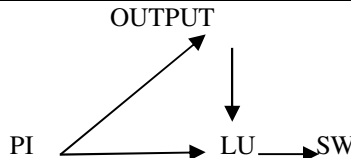
Furthermore, the combined path coefficients calculated to see indirect effect: 1. Government capital expenditure to social welfare; 2. Private investment to social welfare. As shown in Table 4, the indirect effect of government capital expenditure variable on social welfare have a combined path coefficient - 0.082. So the higher the government's capital expenditure, lower social welfare. A negative relationship due to there is a negative path that must be passed, namely the labor usage -> social welfare, because dominant negative path, resulting a negative combined path coefficient . Government capital expenditure could produce a positive combined path coefficient if the relationship between labor-absorption> social welfare can be cured.

Table 4. The combined path coefisien of indirect effect of government capital expenditure on social welfare

No	Variable Relation	Path coefisien
1	GCE → OUTPUT → SW	$0.237 * 0.715 = 0.169$
2		$((0.237 * 0.687) + 0.158) * -0.783 = -0.251$
	The combined path coefisien	-0.082

As shown in Table 5, the indirect effect of private investment variable on the social welfare have a combined path coefficient of 0.224. Although there is a negative path that must be passed, which is private investment->labor usage and labor usage-> social welfare, multiplication of two negative path coefficients produces a positive coefficient. Thus the indirect effect of private investment to the welfare is greater than government capital expenditure.

Table 5. The combined path coefficient of indirect effect of private investment on social welfare

No	Variable Relation	Path coefisien
1	PI → OUTPUT → SW	$0.570 * 0.715 = 0.408$
2		$((0.570 * 0.687) + 0.157) * -0.783 = -0.184$
	The combined path coefisien	0.224

4.2 Discussions

4.2.1 The Effect of Government Capital Expenditure on Output

The effectiveness of capital expenditures affect output in the regencies/ cities in East Java has several factors: First, the type of projects financed by the capital expenditure is largely effective projects creating capital goods and infrastructure. Capital goods increases the capacity of the economy to produce goods and services. Infrastructure cause a decline in the cost of production or transportation for industries that use the results of the project. If Government projects ineffective (failure) causes a high cost economy or budget waste.

Data from 2 007 to 2 013 showed that 40.47% use of capital expenditure in the regencies /cities in East Java for road projects, irrigation and networks, 33.37% for buildings, 19.04% for equipment and machinery, 4, 05% for land and the rest for other assets. Such projects are feasible that generate output or industrial infrastructure.

The second factor, the source of funds used for expenditures on the budget at the regencies/cities in East Java Province do not all come from taxes collected from residents of East Java, resulting in a multiplier effect that is greater than 1. In fact, most of the local government spending funded by central government transfers.

The third, the proportion of capital expenditure to total expenditure in the budget is still small. The proportion of capital spending in the budget of regencies/cities in East Java starting in 2003 up to the year 2012 amounted to 19.38%. Because the numbers are small, the projects are very urgent that benefit most people who take priority.

4.2.2 The Effect of Government Capital Expenditure on Labor Usage

Capital expenditure ability to absorb labor in the regencies/cities in East Java Province due to three factors: 1. The capital expenditure projects in the regencies/cities in East Java are projects that are still labor intensive; 2. There are still Unemployment Rate in East Java, where unemployment is easily absorbed by capital expenditure projects; 3. There is no leakage of the use of funds for capital expenditure or if there is a leak, the rate has not affected the ability of capital expenditure to absorb employment.

Among these three factors, the dominant factor is the first, namely capital expenditure projects are still largely labor-intensive rather than capital-intensive, or in other words between capital and labor more complementary than substitute. Construction of roads, bridges, building hospitals, city parks and schools are still use low or middle technology.

4.2.3 The Effect of Private Investment on Output

The main reason why private investment affect the output is due to investment in the regencies/cities of East Java Province still profitable. In other words, the Marginal Efficiency of Capital (MEC) is still greater than the cost of capital. With the addition of new investment, they create goods or services that are marketable in both the domestic and foreign markets. The investment will increase production capacity, while the production capacity will be maximized by the company if the goods/services produced could still be sold in the market for better quality or cheaper.

Investment in East Java is the right choice because the company will produce cheap and quality products so accepted in the market due to: 1. Human resources are available in sufficient quantities, either in the category of educated labor, skilled labor and unskilled labor. A population of 37 million inhabitants, population density and level of education of the population and the level of skills of the East Java support it; 2. Support adequate infrastructure compared to the average of other regions in Indonesia. Communications equipment, roads, bridges, ports, adequate service bureaucracy to support it; 3. Natural resources are abundant as raw materials in certain industries in East Java. Agricultural products and plantation in East Java provided sufficient as industrial raw materials; 4. The inflation rate in East Java, not far from the national average, making the price of inputs industry in East Java do not rise height exceeds the national average.

Another reason why the private investment effectively influence the output is the injection of aggregate expenditure in the presence of Foreign Direct Investment (FDI). If investment funds only come from domestic savings, small short-term effects because the value of the multiplier number is 1. In fact, foreign investment in East Java increased from year to year with an average not less than 15% per year.

4.2.4 The Effect of Private Investment on Labor Usage

The cause of the negative relationship between private investment with labor usage in the regencies/cities in East Java are: First, the greater the value of the investment, the entrepreneurs started to shift from labor-intensive nature of its investments into capital-intensive investments. The aim is for efficiency because of the greater value of the investment, the greater the labor costs other than wages.

The job market in East Java is an imperfect market. Existing wage does not reflect the balance of demand and supply of labor. If the labor supply increase, not decrease wages, as well as when the demand for labor increases, do not raise wages. This condition is caused by the minimum wage set by the government at the insistence of the union worker, both Provincial Minimum Wage and Regency/City Minimum Wage. The unions are reserved its existence makes unified movement, thereby blocking the exit and entry of labor freely in an industry.

From the employers' side, the greater the investment, the higher the costs to be incurred in addition to labor costs, namely the progressive income tax, business license fees were larger, higher taxes, obligation to meet environmental regulations, labor laws fulfill obligations and so forth. Because the minimum wage has been specified, then the employer will shift the production function so that the proportion of capital input more than

labor input in order to remain profitable investment.

Data in Indonesia shows that the micro and small businesses, the amount of use of labor is higher than large and medium-sized enterprises. Data in 2013, 91% of business in Indonesia is micro, 8% are small enterprises and 1% are medium and large businesses. The use of labor micro enterprises is 37% of the total workforce in Indonesia, small businesses are 29% and 34% of medium and large businesses. From the calculations, the micro enterprises are able to absorb 1-2 workers, a small business is able to absorb the labor force of 15-16 people, medium and large enterprise able to absorb labor 208-209. With an investment of 10 billion, can be used to set up 200 small businesses or 800 micro, capable of absorbing at least 800 workers, being one big business can only absorb 208-209 workers.

In the short term, the number of investment funds is fixed, because it comes from public savings ($S = I$). If all investment funds are allocated to projects large and medium enterprises, the shortage of investment in small and micro enterprises, and vice versa. 10 billion investment fund will only create one large company, but if it is used for micro and small enterprises, will be able to create 800 small companies and more for micro-enterprises.

The negative relationship between private investment variables with the use of labor does not support the theory of Lewis structural transformation. According to Lewis, workers will move into high capitalist sector investment. The reality in East Java, Indonesia, workers move to the small and micro enterprises that require low investment.

4.2.5 The Effect of Output on Labor Usage

Two factors which lead to a positive relationship between the output with the use of labor are: First, economic growth means increasing people's income in East Java. Improve household incomes will lead to increased demand for goods and services. With the increased demand employers have responded by adding new labor to further increase profits.

Secondly, the increase in output resulted in employers' expectations about the state of the economy will come good. Good expectations have realized the entrepreneurs with the production expansion resulting in increased use of new workers. Conversely when the output decreases, there is a lot of workforce reduction to efficiency because many companies that decreased its sales or there are losers.

Okun's theory states that: any reduction in output of 2% will cause unemployment 1%. Unemployment is a part of the labor force looking for work and not get a job. In context with the use of labor according to the study variables, then we can reverse this law becomes: any increase in output by 2% will increase the use of labor by 1%. Findings output coefficient of 0.687 in the study did not break the Okun's Law, because the variables in this study is not unemployment but the use of labor. In the case of regencies/cities in East Java, the output path coefficient greater than Okun's law is supposed to be at 0.5 is a variation of conditions of developing countries. Okun's law is found on the basis of the data in developed countries, particularly the United States, where the unemployment rate is smaller than in developing countries. As a result the unemployment rate is smaller the bargaining power of labor is stronger than in developing countries. In the developed countries, a decrease or an increase in unemployment of labor is more inelastic to output. Conditions in developing countries, the unemployment rate is high, then more elastic labor on output.

4.2.6 The Effect of Output on Social Welfare

A positive relationship between the output with the welfare can be explained as follows: First, during the study period of public education costs do not rise. If the cost of education goes up, then the level of education will decline despite increasing public revenues. During the study period, namely the year 2003 up to 2012 government program to lower the cost of education has been carried out, namely the School Operational Assistance (BOS), which began in July 2005, has a significant role in accelerating the achievement of nine-year compulsory education program. BOS is basically subsidizing the cost of education from government to schools of basic education, in order to achieve nine years of basic education, to ease the operational costs of education.

Secondly, the increase in output will increase the index of life expectancy at birth effectively if there is no increase in healthcare costs borne by society. In fact the cost of public health has declined because of increasing concern the payment by state of health costs for society, especially for the poor. Such programs include Jamkesmas program (Community Health Insurance). The program is run by the Department of Health since 2008 (previously Askesin / Health of the Poor) is based on the concept of social insurance. This program targets for the poor, abandoned children, nursing homes, homeless, in order to increase the level of health.

Third, the increase in output will increase the index of decent living standards if the magnitude of the increase is enjoyed by communities, instead of mostly enjoyed by foreign worker who work in East Java Province, or foreign citizen have companies in East Java (PMA). For developing countries, foreign net payment is usually negative, factor payments abroad is greater than the receipts from abroad. Many residents of East Java who work abroad as migrant workers will increase net foreign payment, thus increasing welfare.

4.2.7 *The Effect of Labor Usage on Social Welfare*

The phenomenon of a negative relationship between labor usage with the welfare of society at the regencies/cities in East Java can be explained as follows: The strength of labor demand and supply affects the amount of labor and real wages. If the labor demand has shifted to the right by assuming fixed supply, will lead to real wage increases and the amount of labor absorbed increases. Events that otherwise would occur if the labor demand shifts to the left. If the labor supply curve shifts to the right, assuming demand remains, then there is a decline in real wages and labor absorbed increases.

Which occurred in the regencies/cities in East Java is the movement of supply and shifting labor supply. Offers movement occurs because the amount of labor supplied in the labor market increases follow a rigid wage rates. The minimum wage set by the government in East Java is not an equilibrium wage (equilibrium). The local government set the minimum wage based on decent living conditions in the region, the amount at least equal to the minimum wage regional/provincial.

This minimum wage causes labor supply exceeds the demand of the industry. This condition is called excess supply of labor, characterized by high unemployment forced (involuntary unemployment), the actual labor willing to work at the prevailing wage rate, but did not get the job. Because of the necessities of life, they are forced to work in micro industries with low wages far below the minimum wage set by the government, in which the micro and small industries escape from government oversight of compliance with minimum wage regulations. The majority of job seekers who are not accommodated in the industry and are not able to establish a business, forced into unemployment. They continue to look for work to get the job really desirable.

Labor supply exceeds the demand is also due to a shift in the labor supply in a region. The cause is growing of the working age population, shifts in cultural values for example the increasing number of housewives who choose to work and the in-migration of labor in the East Java. Especially for incoming migration, labor appeal against migration destination interested in higher wages, also hope for the prosperity of the facilities of life in the city is more complete than in the area of origin.

Excess supply causes equilibrium wages tend to decline and workers absorbed larger. As a result of real wages or real incomes are declining, declining living standards in the form of poor health, low education levels and low purchasing power. In cities where the destination of migration, migrant labor living in rented houses/small boarding house where the standard of living is far from healthy, high crime rate occur so that the life expectancy decreases. By contrast, in regions of origin of migration, namely the suburbs, shifting the labor supply curve to the left, causing the equilibrium wage rises and increased social welfare.

The negative relationship between the variables of labor with the welfare of society does not support the theory of welfare Sen. More people who work should have increased revenue, increased welfare because people's ability to be higher. Welfare resulting by micro businesses that are largely informal, not recorded in the GDP. Their stalls on the roadside, tire repairman, a workshop on the roadside, for example, can not be overlooked the benefit in adding social welfare. Although the new workers are migrant, their welfare is higher in the new workplace, evidenced by their reluctance to return to origin regions.

4.2.8 *The Indirect Effect on Social Welfare*

Between government's capital expenditure and private investment, the largest indirect effect on social welfare is private investment. Although passing through the same path, the same mediator variables, namely output and employment, private investment produces a higher effect than capital expenditure. The cause is the coefficient of private investment \rightarrow output amounted to 0.587 higher than the coefficient of government capital expenditure \rightarrow output only amounted to 0.237. Although private investment \rightarrow labor usage is negative coefficient, amounting to -0.157, but the next path also negative linear, that is labor usage \rightarrow social welfare of -0.783, so the value of the combined path coefficient is positive. Thereby to improve the welfare of the community, private investment needs to be increased rather than government capital expenditures, except the use of labor usage \rightarrow social welfare can be treated so positive.

4.2.9 Empirical Findings

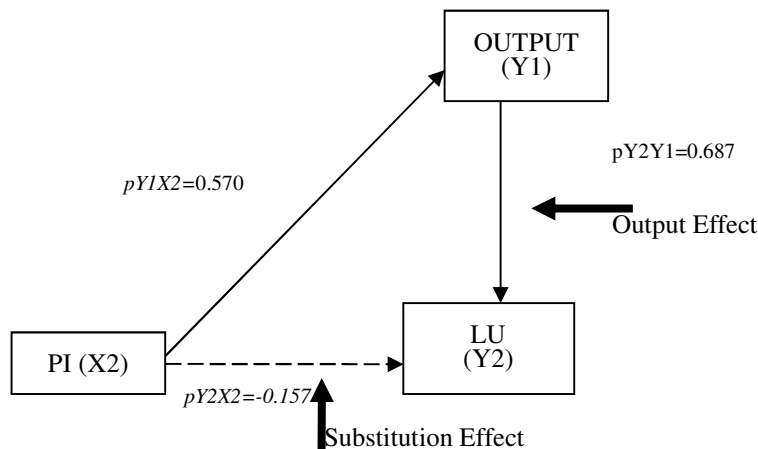


Figure 3 The Effect of Private Investment on Labor Usage

There are two empirical findings in this study. First, the relationship between private investment with labor usage is negative. This negative relationship can not be interpreted that to improve the labor usage, private investment needs to be reduced, because the indirect effect has a positive path coefficients and larger, which pass through the mediator variable output, so that in total, private investment has a positively combined path coefficient to labor usage. The combined effect of the private investment to labor usage is calculated by: $(0.570 * 0.687) - 0.157 = 0.235$. Figure 3 shows the effect of private investment on output and labor usage. The dotted lines indicate a negative relationship.

The negative relationship between private investment with labor usage is called the substitution effect, since labor replaced by capital with the higher levels of investment. Positive relationship between output and labor usage called output effect, due to the increased output will lead to the increased labor usage.

The second empirical findings are negative relationship between the labor usage \rightarrow social welfare, as illustrated in Figure 4. The relationship is negative because labor supply is greater than demand decrease in real wages, which in turn lowering wages, education and health levels. Three it is a component of the HDI calculation.

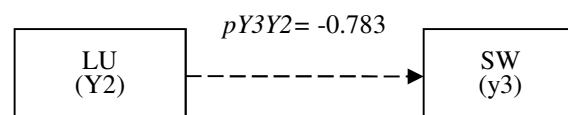


Figure 4 The Effect of Labor Usage on Social Welfare

The relationship needs to be reconfirmed by way of revising the calculation of the HDI components. Components labor usage or the unemployment rate should be included as a component of the HDI calculation. The more labor is used, it should improve the welfare of the community, not lowered.

5. Conclusion

Government capital expenditure more increase the labor usage rather than private investment, while private investment more increase the output rather than government capital expenditures. Private investment has more effect to improve the welfare of society rather than government capital expenditures. Empirical findings in this study there are two, namely: 1. Private investment has negatively affect on labor usage directly (substitution effect), but the total effect is positive, because the indirect effect is positive and larger, namely through the output (output effect); 2. The direct effect of the labor usage on social welfare is negative.

Recommendation

1. Required linkages between micro, small, informal sector with medium and large industry, so the higher the

investment, the higher use of labor.

2. The calculation of HDI should be reviewed to include a component of labor usage or unemployment, so that social welfare created by micro and informal sector industries into account.

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