

“Direct and indirect effects of investment on community welfare”

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ARTICLE INFO

Baldric Siregar (2019). Direct and indirect effects of investment on community welfare. *Investment Management and Financial Innovations*, 16(3), 206-216. doi:[10.21511/imfi.16\(3\).2019.19](https://doi.org/10.21511/imfi.16(3).2019.19)

DOI

[http://dx.doi.org/10.21511/imfi.16\(3\).2019.19](http://dx.doi.org/10.21511/imfi.16(3).2019.19)

RELEASED ON

Monday, 23 September 2019

RECEIVED ON

Monday, 05 November 2018

ACCEPTED ON

Thursday, 12 September 2019

LICENSE



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JOURNAL

"Investment Management and Financial Innovations"

ISSN PRINT

1810-4967

ISSN ONLINE

1812-9358

PUBLISHER

LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER

LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

27



NUMBER OF FIGURES

1



NUMBER OF TABLES

2

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine

www.businessperspectives.org

Received on: 5th of November, 2018
Accepted on: 12th of September, 2019

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Baldric Siregar (Indonesia)

DIRECT AND INDIRECT EFFECTS OF INVESTMENT ON COMMUNITY WELFARE

Abstract

Despite the fact that the government is the main actor of economic development, it also invites private parties to be actively involved in the economic development. The main objective of public and private investment is economic development. But the ultimate goal of investment and economic development itself is to improve the welfare of the community. This study seeks to investigate the effect of private and public investment on economic growth. Furthermore, it also investigates the impact the investment on the community welfare either directly or indirectly through economic growth by way of analyzing the data on private and public investment, economic growth, and the human development index of local governments in Indonesia for the period from 2012 to 2016. Hypotheses were tested using PLS (Partial Least Squares). The results show that both private and public investment directly influence economic growth and indirectly affect the welfare of the people through economic growth. Direct test results also show the positive effect of economic growth on community welfare.

Keywords

private investment, public investment, economic growth, community welfare

JEL Classification

E22, O16, R11

INTRODUCTION

The effect of public and private investment on economic growth has been widely addressed by various researchers. However, the results of those studies are not unidirectional. Several studies such as Kandenge (2005), Algifari (2011), Dwiningwarni (2009), Phetsavong and Hiroshima (2012), Haque (2013), Ramli and Andriani (2013), Muthui, Kosimbei, Maingi, and Thuku (2013), Maharani and Isnowati (2014), Panggabean (2014), Sumanto and Efenndie (2015), Sabir, Yustika, Susilo, and Maskie (2015) show that public investment has a positive impact on economic growth. The positive impacts of private investment on economic growth are also found in Kandenge (2005), Dwiningwarni (2009), Phetsavong and Hiroshima (2012), Haque (2013), Ramli and Andriani (2013), Nurmainah (2013), Rizky, Agustin, and Mukhlis (2016), Maharani and Isnowati (2014), Sumanto and Efenndie (2015). But several other studies such as Ighodaro and Oriakhi (2010), Devarajan, Swaroop, and Zou (1996), and Iheanacho (2016) show that public investment negatively affects economic growth. Herdarmin (2012), Phetsavong and Hiroshima (2012) find similar findings in that private investment also negatively affects economic growth.

It is obvious that not only economic development is aimed at achieving economic growth, but also at improving social welfare. There are several similar studies for the Indonesian context with various perspectives. Studies on the effect of government capital expenditure and private investment for the scope of certain provincial governments in

Indonesia include Dwiningwarni (2009), Herdarmin (2012), Maharani and Isnowati (2014), and Sabir, Yustika, Susilo, and Maskie (2015). With a broader scope that includes Indonesia as a whole, related studies include the effect of investment on economic growth (Setiawati & Hamzah, 2007; Rizky, Agustin, & Mukhlis, 2016; Ridzuan, Khalid, & Zarin, 2018), unemployment (Setiawati & Hamzah, 2007), human development (Algifari, 2011), exports (Rahmaddi & Ichihashi, 2013), community welfare (Sumanto & Efenndie, 2015), and poverty (Setiawati & Hamzah, 2007; Ahmad et al., 2019). Both studies in other countries, as well as similar studies in Indonesia, have found inconsistent results about the relationship between investment, economic growth and welfare. Due to the mixed empirical results, this study intends to re-investigate the impact of government capital spending and private investment on economic growth for Indonesia's case. In addition, this study also covers simultaneous testing to determine the impact of government capital spending and private investment on social welfare as mediated by economic growth. It is what distinguishes this research from other studies.

1. LITERATURE REVIEW

Investment can increase the supply side of economy. With investment there is expenditure to acquire land, building, equipment, machinery and raw material. Effective investment can increase the capacity of economy. Investment in production equipment can increase production capacity, investment in technology can increase production capacity, while investment in education and health can increase labor productivity. Effective investment like this can increase economic output and increase production capacity. On the other hand, investment can increase demand side. It also requires labor. Therefore, investment can increase the income of the population. Increasing population income illustrates an increase in the demand for goods and services, thus ultimately growing the economy.

The Government of Indonesia makes the investment sector a cornerstone to boost economic performance. Private sector is a development actor in addition to the Government itself. The Government realizes that not all economic development can be financed through government budget due to limited funds. The role of the private sector is increasingly important from year to year along with an increasing investment need for economic development. The government invites the private sector so that infrastructure development is no longer solely funded through the government budget. Economic development will be more optimistic if the private sector also contributes to growth in addition to those based on the contribution of the government budget.

In the past five years, namely from 2013 to 2017, investment growth had taken place in Indonesia. However, this growth experienced a slowdown. During this period, investment grew by 27.2%, 16.1%, 17.7%, 12.3% and 13%. On the one hand, the government wants to increase private investment. On the other hand, investors face various obstacles to investing. The Investment Coordinating Board itself realizes that there are several investment constraints that must be overcome, including a number of regulations that hinder investment, lack of tax incentives for investors, low quality of human resources, lack of supporting infrastructure, and difficulty in land acquisition for investment purposes.

Various things are done by the Government to overcome these investment constraints. First, the Government overcomes economic and investment issues by the issuance of the Economic Policy Package Phase XVI in 2018. One part of the Policy Package is taxation policy whose purpose is to provide tax incentives in order to increase investment such as tax holidays, tax allowances, small and medium business taxes, and incentives for companies that carry out research and development and vocational training. Second, the Government issued Government Regulation No. 24 of 2018 on Electronic Integrated Licensing Services so that the investment permit process will be faster and more transparent. Third, the Government established a public service body through Regulation of the Minister of Finance No. 54 of 2017 on Government Asset Management Agency Procedure and Organization to assist investors in land acquisition.

Based on theory, investment should have a positive impact on economic growth both in terms of supply and demand sides. Investment improves the economy by increasing the productivity. Investment can also increase the economy with increasing the community income. However, empirical evidence is not always in line with theoretical concepts. Empirical findings related to the influence of private investment on economic growth are still mixed. There are several studies that find a positive relationship between private investment and economic growth such as Roller and Waverman (2001), Kandenge (2005), Dwiningwarni (2009), Phetsavong and Hiroshima (2012), Haque (2013), Ramli and Andriani (2013), Nurmainah (2013), Rizky, Agustin, and Mukhlis (2016), Maharani and Isnawati (2014), Sumanto and Efenndie (2015). The empirical findings about the negative effects of private investment on economic growth are revealed by Herdarmin (2012), Phetsavong and Hiroshima (2012). Panggabean (2014) found that private investment has no effect on economic growth.

The development actors include the Government, private sector, and community itself. It is obvious that not all development expenditures should be sourced from the government budget. The government budget is limited, while the funding needs for development are huge and increasing over time. Therefore, it is expected that the private sector, both domestic and foreign investment, play a significant role to accelerate the development process. To stimulate economic progress both nationally and regionally, it is not enough to rely on spending on the public sector. The role and portion of development by the private sector should be enlarged. The underlying reason for this is due to the very limited Government fiscal capacity. Due to such limited fiscal capacity, it is very difficult to imagine that the Government can cover the shortfall in development funds unless private investment can be drawn to engage in the economic development. Therefore, private investment plays an important role in economic growth. Thus, it is very important for the Government to create a conducive business environment to attract investors to invest their capital. The Government is preparing various incentives to encourage private sector involvement in development. One of the incentives given by the Government to invite the private sec-

tor to help build the economy is the provision of land acquisition guarantee. The land acquisition guarantee is provided by the Government to the private sector involved in infrastructure development. The Government provides funds of tens of trillions of rupiahs per year to ensure that land is available for private infrastructure development.

Private investment can improve people's lives, improve the ability of the community to access health and education services, and reduce poverty. Thus, private investment can encourage the improvement of community welfare. Private investment produces economic output. The more the private investment, the higher the economic output. Increasing private investment contributes as a lever to the movement of a nation's economic development. Private investment acts as one component of national income, Gross Domestic Product. When investors, entrepreneurs, or individuals make investments, there will be a certain amount of capital invested, there are a number of goods that are not consumed but used for production, so that they produce goods and services in the future. In simple terms, the influence of private investment on the economy of a country is reflected in the country's national income and therefore private investment is positively correlated with Gross Domestic Product. In general, it can be said that if private investment rises, Gross Domestic Product will rise and this will improve the economy. This increase in output illustrates economic growth. In the context of development, economic growth itself is not the ultimate goal of investment. Welfare is the ultimate goal of economic development instead. A growing economy can reduce unemployment, improve health and education services, and improve people's lives. A growing economy causes an increasing welfare of the society. In other words, through economic growth, investment can improve the welfare of the community.

In addition to the above arguments, the impact of investment on economy and public welfare is also contained in the regulations on investment. The main regulations related to investment in Indonesia are regulated in Law number 25 of 2007 regarding investment. The Law states that investment is all forms of investment activities, both by domestic investors and foreign investors to do business in the territory of the Republic of

Indonesia. Explicitly stated, the investment objectives, as stipulated in the law, are to create jobs, increase technology capacity and capability, encourage the development of people's economy, process potential economies into real economic power, increase the ability of business competitiveness, increase economic growth, enhance sustainable economic development, and improve community welfare. It is clearly stated in the law that investment objectives are, among others, to improve the economy and people's welfare. It can be said that investment is thought to affect the economy and also the welfare of society. In addition to directly influencing the welfare of the community, investment, through economic growth, also affects the welfare of the community. Based on the above argument, it is possible to formulate the following hypotheses:

H1a: Private investment positively affects the economic growth.

H1b: Private investment positively affects the community welfare.

H1c: Economic growth mediates the relationship between private investment and community welfare.

The long-term development direction is outlined in Law number 17 of 2007 on national long-term development plan. The law states that the ultimate goal of development is to protect the entire nation, promote public welfare, educate the nation, and participate in carrying out world order based on independence, eternal peace and social justice. It is clear in the law that the Government declares a vision of development, one element of which is the welfare of the community.

To ensure the vision of development, namely the welfare of the community, is achieved, there needs to be harmony in development planning both between the central government and regional governments and between ministries and work units in the regional government. An integrated development planning system is formed. The central government develops long-term development plans, medium-term development plans, annual work plans, and budgets. Ministries within the central government shall refer to the central gov-

ernment planning documents in preparing their long-term and medium-term development plans, annual work plans, and their respective budgets.

Local governments are also required to develop long-term development plans, medium-term development plans, annual work plans, and budgets. These regional government development planning documents shall refer to the development planning document determined by the central government. In addition, work units in the regional governments shall refer to the regional government planning documents in preparing their respective long-term, medium-term plans, annual work plans, and budgets. If there is harmony in development planning, both between the central government and the ministries, between the regional government and the work units, as well as between the central government and regional government, then the direction of development that is determined can be implemented so that the ultimate goal of development, namely community welfare, can be achieved.

Every year the interior ministry assesses whether regional government development planning is aligned with national development planning. There are various items that are assessed and two of which are budget priorities and budget allocations. Regarding budget priorities, the Ministry of Home Affairs assesses the consistency of development priorities, synchronizes planning documents, synchronizes budget documents with planning and implementation of budget priorities in budget implementation documents. Regarding budget allocation, the Ministry of Home Affairs assesses the extent to which the proportion of the budget is made by the regional government for functions that are considered productive and functions that are less productive in economic development. Even the minimum provisions are regulated in relation to education, health and capital expenditure. The implementation value of the local government is issued by the interior ministry as a basis for providing incentives and also evaluating the improvement of planning and budgeting the following year.

As stated above, the central government, through the Ministry of Home Affairs, ensures that there is alignment in development. An important aspect that is confirmed to be aligned is capital ex-

penditure in the context of economic growth. The importance of public investment for economic growth is recognized by the central government. The central government, through the Ministry of Home Affairs, makes guidelines for the preparation of local budgets every year. Even in certain years the central government determines the minimum amount of public investment as stipulated in the regulation of the Minister of Home Affairs number 27 of 2013. Although there is no minimum public investment in the given year, the central government emphasizes that local governments allocate public investments in accordance with development priorities as stated in the regulation of the Ministry of Home Affairs number 37 of 2014. Determination of minimal public investment in local government budgets shows government awareness that public investment is a driver of economic growth. The central government expects that local governments budget adequate public investment and reduce unproductive expenditures to encourage regional economic activities to ultimately improve the welfare of the community.

Studies conducted by Muthui et al. (2013) and Nurmainah (2013) concluded that the allocation of government spending on infrastructure has a positive and significant impact on economic growth. These findings are also supported by Maryaningsih, Hermansyah, and Savitri (2014) whose study reinforces that the availability of adequate infrastructure becomes an important factor to achieve sustainable economic growth. Other studies that find a positive impact of government capital spending on economic growth are Munnell (1992), de Walle (1998), Kandenge (2005), Dwiningwarni (2009), Phetsavong and Hiroshima (2012), Haque (2013), Ramli and Andriani (2013), Muthui, Kosimbei, Maingi, and Thuku (2013), Panggabean (2014), Maharani and Isnawati (2014), Sumanto and Efenndie (2015), Sabir, Yustika, Susilo, and Maskie (2015). However, some empirical evidences reveal the contrary result in that government public investment negatively affects economic growth as found in the studies conducted by Ighodaro and Oriakhi (2010), Devarajan, Swaroop, and Zou (1996), and Iheanacho (2016). In addition, there are also statements that government public investment has no impact on economic growth as found in the research findings of Setiawati and Hamzah (2007), Herdarmin (2012).

It is argued that the Government should be able to affect economic growth directly or indirectly. This can be done through various instruments, one of which is expenditure such as public investment. But the fact is that government spending and economic growth do not always go hand in hand. According to Barro (1990), the impact of government spending on economic growth depends on the productivity of the expenditure. Productive spending will be positively correlated with economic growth, while unproductive spending will be negatively correlated. Regardless of expenditure productivity, Government is the main actor of community development. This investment activity will drive the optimum level of production and contribute to the increase of output. Government investment activities are reflected in the availability of infrastructure funded by government public investments such as roads, electricity, telecommunications and irrigation. Public investment provides employment opportunities and reduces poverty. Public investment also fosters an economy that ultimately benefits the people. Likewise, as expected by the Government in the Law No. 25 of 2007 regarding investment, investment does not only affect economic growth, but also the welfare of the community directly. Based on the above argument, it is possible to formulate the following hypotheses:

- H2a: Public investment positively affects the economic growth.*
- H2b: Public investment positively affects the community welfare.*
- H2c: Economic growth mediates the relationship between public investment and people's welfare.*

The public investment is a means to increase the economic growth. The economic growth itself is not the ultimate goal of economic development. The community welfare is the ultimate goal of any economic development. It is expected that the economy that grows through public investment has a positive impact on improving public welfare. Communities are prosperous if their needs such as housing, clothing, and food, health, and education, are fulfilled. The Human Development Index (IPM) provides a broader perspective for assessing

human welfare. IPM describes human welfare in three dimensions, namely education, health and purchasing power. Per capita economic growth indicates individual purchasing power. If the individual purchasing power increases, the ability of individuals to meet the needs of their standard of living will also increase. So, the best way to improve people's welfare is to maximize economic growth. Based on the above argument, it is possible to formulate the following hypothesis:

H3: Economic growth positively affects the community welfare.

2. METHODOLOGY

The research unit analysis is the local government, namely the district and the city. By 2016, there were 415 districts and 93 cities spreading over 34 provinces in Indonesia. During the five-year observation period from 2012 to 2016, there were 2,540 observations. However, since the data of some districts and cities are incomplete, the total number of observations ultimately processed is 1,524 from 508 districts and cities in Indonesia.

The first endogenous variable in this study is private investment. In accordance with Law number 25 of 2007 regarding investment, the definition of investment is any form of investing activity by both domestic and foreign investors to do business in the territory of Indonesia. Private investment includes domestic and foreign investment. A domestic investment means any investing activity to do business that is carried out by a domestic investor by use of domestic capital. Meanwhile, a foreign investment means any investing activity to do business that is conducted by a foreign investor both by use of all of foreign capital and

by engagement in a joint venture with a domestic investor. Capital is obtained by carrying out various investment expenses. Investment expenses include all expenses incurred by investors up until the capitals or assets that are built are ready to be used to earn income such as research and development costs, equipment and machinery purchases, construction of factories and other buildings, and other capital expenditures. Capital expenditure does not include administrative and marketing expenses. The author obtains the data in accordance with the definition of investment according to the Government (Investment Coordinating Board) in the form of investment accumulation and he does not have the opportunity to identify the elements that make up the investment.

The second exogenous variable is public investment. A public investment is a capital expenditure budgeted by each district and city government in Indonesia. Public investment data are derived from the Central Bureau of Statistics. Other variables are economic growth and community welfare. Economic growth is indicated by gross regional domestic product. This study uses gross regional domestic product based on constant prices, while the Human Development Index shows the level of community welfare. Both the gross regional domestic product data and the Human Development Index were derived from the Central Bureau of Statistics.

Figure 1 shows the research model. The research equation is an equation that shows the relationship of mediation. Exogenous variables are private investment (PRI) and public investment (PUI). Private sector investment is measured by natural logarithm of domestic and foreign investment realization. Same with private investment, public investments are also measured by the natural log-

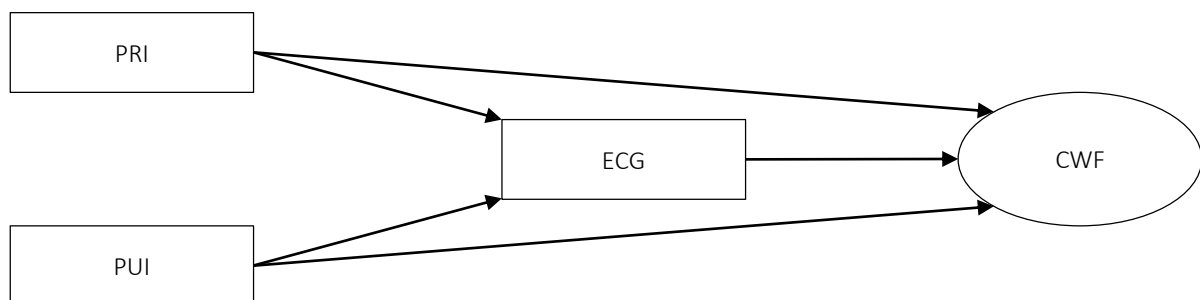


Figure 1. Research model

arithm of realization of regional government. In this study, investment is an exogenous variable on economic growth. However, it is possible that economic growth affects investment. If investors see that economic growth is good, then they can increase investment to anticipate demand for goods and services in the future. Conversely, if an investor sees that economic growth is declining, he can reduce or withdraw his investment. This issue was not examined in this study.

The mediation variable is economic growth (ECG) as measured by the natural logarithm of gross regional domestic product (GRDP). Meanwhile, the endogenous variable is the community welfare (CWF). The community welfare is a latent variable with an indicator of Human Development Index. Data and hypotheses are analyzed using Partial Least Square Package. There are two reasons for using PLS. First, was conducted a simultaneous test by estimating the effect of investment on community welfare through mediating economic growth variables. Second, the variables in this study have only one indicator each. PLS is suitable for various types of measurements and one indicator variable. Analysis is carried out both for direct and indirect testing. Direct testing is run between private investment as an exogenous variable with economic growth and community welfare. Direct testing is also carried out between public investment and economic growth and community welfare, while indirect testing is executed between private and public investment as exogenous variables on people's welfare as endogenous variables through economic growth as a mediating variable.

3. RESULTS

Table 1 presents descriptive statistics including minimum, average, maximum, and standard deviation values for each variable. Descriptive statistics outlined for research variables include private investment, public investment, economic growth, and Human Development Index. Table 1 describes each variable in terms of minimum, mean, maximum, and standard deviation. As many as 74% of districts and cities have private investment below the national average of private investment. This can be seen from the minimum value that is far below the investment average of private invest-

ment. This means that the value of private investment is less spread evenly among districts and cities. Generally investment with a large value is invested in large cities on the island of Java. The local government with the highest private investment is Bekasi District. The region with the lowest private investment is Padang Lawas District. Meanwhile, the value of public investment ranges from Rp 68.2 billion to Rp 2,856.0 billion with an average value of Rp 349.6 billion. With figures above it can be said that generally the value of public investment in districts and cities is below average. The highest public investment is in South Tangerang District and the lowest public investment is in Ogan Ilir District. Other variables, namely gross regional domestic product and Human Development Index, each has an average value of Rp 19,247.3 billion and 66.8. The highest gross regional domestic product is in Surabaya City and the lowest is in Arfak Mountain District. The highest Human Development Index is in Yogyakarta City, while the lowest Human Development Index is in Tolikara District.

Table 1. Descriptive statistics

| Variables | Minimum | Average | Maximum | SD |
|------------------|---------|----------|-----------|----------|
| PRI (Rp billion) | 5.9 | 11,549.7 | 37,231.4 | 4,168.1 |
| PUI (Rp billion) | 68.2 | 349.6 | 2,856.0 | 305.8 |
| ECG (Rp billion) | 512.4 | 19,247.3 | 363,135.5 | 22,476.9 |
| CWF | 54.1 | 66.8 | 85.6 | 5.2 |

In this research, both outer and inner model tests were verified. The indicator in the outer model test is having an outer loading of more than 0.5 for the convergence validity to be eligible, cross loading of a variable with indicators greater than cross loading the variable with other variable indicators to meet discriminant validity, and possessing composite reliability of more than 0.7 to meet reliability requirement. All three test outer models are eligible. The determination coefficient (R²), predictive relevance (Q²), and goodness of fit index (GoF) are checked for inner model test. The determination coefficients for economic growth and social welfare are 67.1% and 42.8%, respectively, while predictive relevance figure is 81.2%. From those figures, it is possible to conclude that the model is fit for hypothesis testing.

The coefficient of determination in the regression between investment and economic growth

is 67.1%. This figure shows the relative influence or contribution of the effect of investment variables on economic growth. Every Rupiah economic growth is affected by 0.671 Rupiah in investment. Furthermore, the coefficient of determination between economic growth and community welfare is 42.8%. This indicates that one figure of community welfare is affected by 0.428 economic growth.

Table 2 shows the results of the hypotheses testing. The hypotheses related to the influence of private investment on economic growth and community welfare are as follows: (*H1a*) private investment positively affects the economic growth, (*H1b*) private investment positively affects the community welfare, and (*H1c*) economic growth mediates the relationship between private investment and community welfare. All these hypotheses are proved to be in accordance with predictions.

Hypotheses about the positive effects of private investment on economic growth and community welfare are supported. Private investment directly affects economic growth and community welfare indirectly affects the welfare of the people through economic growth. This findings are in line with previous findings such as those in Kandenge (2005), Dwiningwarni (2009), Phetsavong and Hiroshima (2012), Haque (2013), Ramli and Andriani (2013), Nurmainah (2013), Rizky et al. (2016), Maharani and Isnawati (2014), and Sumanto and Efenndie (2015).

Private investment contributes to the amount of output generated in an economy. As theory prediction suggest that the accumulation of capital used for the procurement of new production factors or for improving the quality of existing production factors can affect economic growth. Private investment activities affect economic activity through employment opportunities, thus increasing revenues that ultimately improve people's welfare. It is proven that the private sector plays an important role in development. The private sector is a development agent, as well as the government. Local governments are required to encourage the private sector to grow through the provision of various assistance and encouragement such as the ease of licensing, the provision of taxes that are not too burdensome, and easier business land requisition.

Table 2. Results of hypotheses testing

| Hypotheses | Var. relationship | Coeff. | p-value |
|------------|-------------------|--------|---------|
| <i>H1a</i> | PRI → ECG | 0.314 | 0.000 |
| <i>H1b</i> | PRI → CWF | 0.156 | 0.001 |
| <i>H1c</i> | PRI → ECG → CWF | 0.113 | 0.018 |
| <i>H2a</i> | PUI → ECG | 0.523 | 0.000 |
| <i>H2b</i> | PUI → CWF | 0.217 | 0.005 |
| <i>H2c</i> | PUI → ECG → CWF | 0.202 | 0.006 |
| <i>H3</i> | ECG → CWF | 0.639 | 0.000 |

The statements of hypotheses about public investment, economic growth, and public welfare are as follows: (*H2a*) public investment positively affects the economic growth, (*H2b*) public investment positively affects the community welfare, and (*H2c*) economic growth mediates the relationship between public investment and people's welfare. The results of data analysis as shown in Table 2 show those hypotheses are supported according to the predictions. The results clearly show that public investments have good impact on economic growth. Public investment directly affects economic growth and community welfare. Public investment also indirectly affects the welfare of the people through economic growth. This findings are consistent with previous findings such as Kandenge (2005), Dwiningwarni (2009), Phetsavong and Hiroshima (2012), Haque (2013), Ramli and Andriani (2013), Muthui et al. (2013), Panggabean (2014), Maharani and Isnawati (2014), Sumanto and Efenndie (2015), and Sabir et al. (2015).

If there is an increase in the amount of government public investment, then this results in an increase in the regional economy. Public investments, for example, infrastructure development, financed by the government budget encourage the economic activities of the people, thereby increasing the output of goods and services. It is evident that public investment is a stimulus for economic growth. Directives from the central government to determine the minimum allocation of public investment in local budget can be justified by this finding. Local governments should not hesitate to allocate budgets for public investments for a better economy. However, capital spending should not be made for unproductive expenditure. Despite the existing public investments, if done for unproductive activities, for example, for military expenditures, it does not have a good impact on the econ-

omy (Iheanacho, 2016). This can be understood because the motive for capital expenditure for the military is routine in the context of security and defense. The public investment from the government budget can also have an adverse effect on the economy if corruption is rampant (Okoro, 2013). The use of capital budget must be really targeted to support the creation of community economy.

The finding related to the third hypothesis that economic growth positively impacts on social welfare is certainly not surprising. The social welfare is shown by the level of Human Development Index. The greater the level of the economy, the greater the Human Development Index. The positive effects of economic growth

found in this study are consistent with those found in the study of Algifari (2011). Economic growth is the intermediate goal. Development programs by the Government and the private sector is not intended solely to improve the economy. The ultimate goal of economic development is the social welfare. Economic development boosts economic growth by boosting economic activity, opening up employment opportunities and this has an impact on increasing people's incomes. If the income of the community increases, the community can improve their quality of life by fulfilling basic needs such as education and health. So, if the income of the community increases, the level of community welfare also increases.

CONCLUSION

This study has explored how government capital spending and private sector investment affect economic growth and further affect community welfare. Based on the results of data analysis, it is possible to draw some conclusions. First, public investment has a positive impact on economic growth of local government. Greater public investment spent by the government leads to greater economic growth of the community. It is evident that the growth of government public investment is really an important driver in promoting the economic growth of the community. The decision to increase capital spending has a positive impact on society. Local governments need not hesitate to increase public investment. The central government's demands on minimum public investments that have been difficult to meet should be implemented without hesitation.

Second, local economic growth is driven not only by government public investment, but also by private sector investment. Empirical evidence suggests that the increase of private investment is followed by the increase of economic growth. The greater the private capital spending, the more driven the economic growth. The local government should not work alone to improve the economy of the local community. Local governments need to invite the private sector to jointly invest in order to improve the economy of the community. Factors inhibiting private investment should be avoided. Various incentive schemes need to be provided by the government to the private sector. Furthermore, the Indonesian Government needs to make the licensing process easy, fast, and inexpensive to grow investment. It seems that investment licensing will be one of the focuses of the Indonesian Government as can be seen from the speech of president-elect Joko Widodo on July 2019 stating that government would simplify licensing, beat licensing extortions, remove low performance officials, and restructuring of government institutions to make investment licensing easier, cheaper, and faster.

Third, economic growth is good for social welfare. This is evident from the positive impact of economic growth on community welfare. Economic growth is not an end in economic development. A growing economy is not enough if not followed by improving the welfare of the community. The ultimate goal of development is to improve people's well-being. Given the positive impact of economic growth on the welfare of the people, the government's efforts through public investment and private sector contribution in economic development are not in vain. The important implication of this research is that the Government really needs to pay attention to public investment as it contributes positively to the economic development and ultimately on improving people's welfare. Indirect spending and routine

expenditures need to be made more efficiently in order to allow available large allocations for public investments. The private sector should also be encouraged to do the development by providing various incentives and conveniences to attract investment.

However, this study has some limitations. The research data used in this study is the realization of public investment either by local government or private sector. The phenomenon of ineffective and inefficient public investment, particularly in the government sector, has not been addressed in this study. In addition, public investment has not yet been classified based on the exposure of the spending to the economy. Public investment for the construction of roads, bridges, ports, electricity, and irrigation can be said to be directly related to the people's economy. However, public investments for the purchase of office equipment and the construction of government offices may not be directly related to the economic development of the community. The public investment groupings as described above need to be examined in subsequent research.

ACKNOWLEDGMENT

The research was funded by the Ministry of Research and Higher Education, Republic of Indonesia, with contract number of 027/HB-LIT/II/2018.

REFERENCES

- Ahmad, F., Draz, M. U., Su, L., Ozturk, I., Rauf, A., & Ali, S. (2019). Impact of FDI Inflows on Poverty Reduction in the ASEAN and SAARC Economies. *Sustainability*, 11, 1-24. Retrieved from <https://ideas.repec.org/a/gam/jsusta/v11y2019i9p2565-d228084.html>
- Algifari (2011). Hubungan antara Pendapatan per Kapita dan Indeks Pembangunan Manusia. *Jurnal Ekonomi Dan Bisnis*, 5(3), 253-264. Retrieved from <https://totokaryanto.wordpress.com/2014/05/08/hubungan-antara-pendapatan-per-kapita-dan-indeks-pembangunan-manusia-ipm-3/>
- Barro, R. J. (1990). Government Spending in a Simple Model of Endogenous Growth of Endogenous Growth. *Journal of Political Economy*, 98(55), 103-125. <https://doi.org/10.1086/261726>
- De Walle, D. (1998). Assessing the Welfare Impacts of Public Spending. *World Development*, 26(3), 365-379. [https://doi.org/10.1016/S0305-750X\(97\)10064-X](https://doi.org/10.1016/S0305-750X(97)10064-X)
- Devarajan, S., Swaroop, V., & Zou, H. (1996). The Composition of Public Expenditure and Economic Growth. *Journal of Monetary Economics*, 37(2), 313-344. [https://doi.org/10.1016/S0304-3932\(96\)90039-2](https://doi.org/10.1016/S0304-3932(96)90039-2)
- Dwiningwarni, S. S. (2009). Pengaruh Investasi, Tenaga Kerja, dan Pengeluaran Pemerintah terhadap Pertumbuhan Ekonomi di Provinsi Jawa Timur. *Ekuitas*, 15(4), 477-500. Retrieved from <https://ejournal.stiesia.ac.id/ekuitas/article/view/166>
- Haque, S. T. (2013). Effect of Public and Private Investment on Economic Growth in Bangladesh: An econometric Analysis. *Research Study Series No – FDRS*, 05/2013, 104-126. Retrieved from https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/17643e1a_542c_47c8_a833_91a90d156ac7/chapter5.pdf
- Herdarmin (2012). Pengaruh Belanja Modal Pemerintah Daerah dan Investasi Swasta terhadap Pertumbuhan Ekonomi, Kesempatan Kerja dan Kesejahteraan Masyarakat di Kabupaten/Kota Provinsi Kalimantan Barat. *Jurnal Eksos*, 8(3), 144-155. Retrieved from <http://repository.polnep.ac.id/xmlui/handle/123456789/55>
- Ighodaro, C. A., & Oriakhi, D. E. (2010). Does the Relationship Between Government Expenditure and Economic Growth Flow Wagner's Law in Negeria? *Economics*, 10(2), 185-198.
- Iheanacho, E. (2016). The Contribution of Government Expenditure on Economic Growth of Nigeria- Disaggregated Approach. *International Journal of Economics and Management Sciences*, 5(5), 1-8. <https://doi.org/10.4172/2162-6359.1000369>
- Kandenge, F. T. (2005). Public and Private Investment and Economic Growth in Namibia (1970-2005). *Botswana Journal of Economics*, 2-15. <http://dx.doi.org/10.4314/boje.v7i1.64200>
- Maharani, K., & Isnowati, S. (2014). Kajian Investasi, Pengeluaran Pemerintah, Tenaga Kerja, dan Keterbukaan Ekonomi terhadap Pertumbuhan Ekonomi di Provinsi Jawa Tengah. *Jurnal Bisnis Dan Ekonomi*, 21(1), 62-72. Retrieved from <https://www.unisbank.ac.id/ojs/index.php/fe3/article/view/3172>
- Maryaningsih, N., Hermansyah, O., & Savitri, M. (2014). Pengaruh Infrastruktur terhadap Pertumbuhan Ekonomi Indonesia. *Buletin*

- Ekonomi Moneter Dan Perbankan*, 17(1), 61-98. Retrieved from <https://ideas.repec.org/a/idx/journal/v17y2014i1cp1-38.html>
14. Munnell, A. H. (1992). Policy Watch: Infrastructure Investment and Economic Growth. *Journal of Economic Perspectives*, 6(4), 189-198. <https://doi.org/10.1257/jep.6.4.189>
15. Muthui, J. N., Kosimbei, G., Maingi, J., & Thuku, Gi. K. (2013). The Impact of Public Expenditure Components on Economic Growth in Kenya 1964–2011. *Internastional Journal of Business and Social Science*, 4(4), 233-253. Retrieved from <https://ir-library.ku.ac.ke/handle/123456789/9221>
16. Nurmainah, S. (2013). Analisis Pengaruh Belanja Modal Pemerintah Daerah, Tenaga Kerja Terserap, dan Indeks Pembangunan Manusia terhadap Pertumbuhan Ekonomi dan Kemiskinan. *Jurnal Bisnis Dan Ekonomi*, 20(2), 131-141. Retrieved from <https://www.unisbank.ac.id/ojs/index.php/fe3/article/view/3158>
17. Okoro, A. S. (2013). Government Spending and Economic Growth in Nigeria (1980–2011). *Global Journal of Management and Business Research Economics and Commerce*, 13(5), 20-30. Retrieved from <https://globaljournals.org/item/2088-government-spending-and-economic-growth-in-nigeria-1980-2011>
18. Panggabean, M. (2014). The Influence of Private Investment, Human Development Index (HDI) and Local Government Capital Expenditure (LGCE) on the Economic Growth and Original Local Government Revenue (OLGR) in the Regency/City of West Kalimantan Province. *International Journal of African and Asian Studies*, 4, 142-150. Retrieved from <https://www.semanticscholar.org/paper/The-Influence-of-Private-Investment%2C-Human-Index-on-Panggabean/eedc32b3c3bc-17c2a465bc49d5eefd2aee87f8a8>
19. Phetsavong, K., & Hiroshima, H. (2012). *The Impact of Public and Private Investment on Economic Growth: Evidence from Developing Asian Countries* (IDED Discussion Paper 2012). Hiroshima University.
20. Rahmaddi, R., & Ichihashi, M. (2013). The Role of Foreign Direct Investment in Indonesia's Manufacturing Exports. *Bulletin of Indonecian Economic Studies*, 49(3), 329-354. <http://dx.doi.org/10.1080/00074918.2013.850632>
21. Ramli, A., & Andriani, A. A. (2013). The Effects of Consumption, Private Investment, and Government Expenditures on Economic Growth in South Sulawesi, Indonesia. *Journal of Economics and Sustainable Development*, 4(14), 145-154. Retrieved from <https://www.iiste.org/Journals/index.php/JEDS/article/view/7832>
22. Ridzuan, A. R., Khalid, M. W., & Zarin, N. I. (2018). The Impact of Foreign Direct Investment, Domestic Investment, Trade Openness and Population on Economic Growth: Evidence from Asean-5 Countries. *International Journal of Academic Research in Business and Social Sciences*, 8(1), 128-143. <https://doi.org/10.6007/IJARBS/v8-i1/3799>
23. Rizky, R. L., Agustin, G., & Mukhlis, I. (2016). Pengaruh Penanaman Modal Asing, Penanaman Modal Dalam Negeri Dan Belanja Modal Terhadap Pertumbuhan Ekonomi Provinsi Di Indonesia. *JESP*, 8(1), 9-16. <http://dx.doi.org/10.17977/um002v8i12016p009>
24. Roller, L.-H., & Waverman, L. (2001). Telecommunications Infrastructure and Economic Development: A Simultaneous Approach. *American Economic Review*, 91(4), 909-923. Retrieved from https://www.jstor.org/stable/2677818?seq=1#page_scan_tab_contents
25. Sabir, Yustika, A. E., Susilo, & Maskie, G. (2015). Local Government Expenditure, Economic Growth, and Income Inequality in South Sulawesi Province. *Journal of Applied Economics and Business*, 3(2), Retrieved from 61-73. <http://www.aebjournal.org/article030205.php>
26. Setiawati, A., & Hamzah, A. (2007). Analisis Pengaruh PAD, DAU, DAK, dan Belanja Pembangunan terhadap Pertumbuhan Ekonomi, Kemiskinan, dan Pengangguran: Pendekatan Analisis Jalur. *Jurnal Akuntansi Dan Manajemen*, 4(2), 211-228. <http://dx.doi.org/10.21002/jaki.2007.11>
27. Sumanto, A., & Efenndie. (2015). The Effect of Government Capital Expenditure and Private Investment on Social Welfare. *Journal of Economics and Sustainable Development*, 6(14), 202-216.