

## THE EFFECT OF GOVERNMENT INVESTMENT AND EXPENDITURES ON CITY POPULATION GROWTH IN SOUTH SULAWESI PROVINCE

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### ARTICLEINFO

#### Keywords:

*Investments*  
*Government Spending*  
*Employment Opportunities*  
*City Population Growth*

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### ABSTRACT

This study aims to determine the effect of investment and government spending on urban population growth, both directly and indirectly through employment opportunities. This study uses panel data with 6 districts/cities in South Sulawesi Province for the 2010-2021 period. The analysis model used is Regression Analysis with SPSS software. The results of this study indicate that simultaneously investment and government spending affect the growth of the urban population. Likewise with investment, government spending, and employment opportunities simultaneously affecting the growth of the urban population. Partially, investment has a positive effect and government spending has a negative effect on urban population growth. Meanwhile, investment and government spending have a positive effect, but employment opportunities have a negative effect on urban population growth. As for the indirect effect, investment has a negative effect on urban population growth through employment opportunities and government spending has a positive effect through employment opportunities in urban areas of South Sulawesi Province.

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### 1. INTRODUCTION

Population growth is a dynamic balance between two forces that increase or decrease the population. It is affected by the number of births and reduced by the number of deaths. In the spatial context, population mobility also affects changes in population, where in-migration will increase and out-migration will reduce the number of residents in an area. A large population for some groups is a positive thing because with a large population it can be used as a subject of development, the economy will develop if the number of workers is large (Rochaida, 2016).

Increasingly uncontrollable population growth and uneven distribution occurred due to population movements between regions. Migration of population that is currently rife is urbanization. In a demographic perspective, urbanization is the percentage of the population living in urban areas (Ramdhani, 2013).

Some of us still have an understanding of urbanization as a movement of people from rural areas to urban areas. But not only that, there are other aspects that need to be known that are not only limited to that but also include, the growth of urban population both from the natural value added of urban residents, regional expansion and reclassification of rural areas into urban areas (Suntajaya, 2014).

According to Tjiptoherijanto (1999) that in the future the process of urbanization in Indonesia will be more due to rural-urban migration. This estimate is based on the fact that if the natural growth of the urban population is low, there will be a slow change in status from rural to urban as well as relatively strong economic and development policies. This last thing will increase the attractiveness of urban areas for residents who live in villages (Suntajaya, 2014).

The occurrence of new ecological adaptations for residents who move from areas of origin to new areas, in this case the city "Urbanization" can be seen as a process of increasing the number of urban residents as a result of new economic, cultural and technological developments. Urbanization can also be interpreted as a process that accompanies the structural transformation of the economy in an area so that a lifestyle will require facilities, infrastructure and services as well as a change in human orientation, which is a rural tradition towards modern life (Rustiadi, 2017).

South Sulawesi province is one of the provinces in Indonesia. Its area is 46,717.48 km<sup>2</sup>. According to the results of the Central Statistics Agency for 2021, the population of South Sulawesi is recorded at 9.1 million people, which ranks seventh among several provinces throughout Indonesia. Urban areas can

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become a magnet for people who want to move from village to city, such as in South Sulawesi Province, namely Makassar City, Pare-pare City, Palopo City, Bone Regency, Gowa Regency, and Maros Regency because judging from the number of urban facilities they have adequate and is an urban center where each economic activity is considered good enough so that it becomes the main aspect that becomes the destination for urban actors.

City population growth in South Sulawesi Province does not experience a consistent increase from year to year. Where, it has decreased so drastically, especially in 2021. This is a phenomenon that is quite concerning for the province of South Sulawesi where the growth of the urban population has decreased. It can be concluded that it does not indicate sustainable development conditions in urban areas in South Sulawesi because of this is in line with the progress of an urban area.

In the development process, it is hoped that growth will be achieved so that it can be categorized as advanced and realize the goals for prosperity and prosperity. In addition, it is hoped that there will be new development and creativity in managing the potential of the area that is owned so that there will be the creation of job opportunities which will become an attraction that will affect the growth of urban residents through migration into certain cities (Jannah, 2020). To achieve this goal, facilities and infrastructure are needed, especially adequate funds.

In this case investment plays an important role because it is one of the factors for the continuity of the process of economic growth in the long term, with the investment invested there will be production activities that can create jobs and people's income so that it will indirectly increase urban population growth such as the migration process (Hellen, 2018).

Regional economic growth is also inseparable from the role of government spending on the public service sector. The higher the productive government spending, the higher the economic level of a region. Government spending is a type of policy carried out by the government as a step for the welfare of its people, one of which is to create jobs, in this case government spending can carry out its mission in maintaining the smooth running of government and maintaining economic stability (Hellen, 2018).

Employment opportunities are also the main target for urban residents from villages in determining their decision to move or migrate. They will not move if the wages in the area of origin are higher or the same as the destination area. Economists also view migration activities which cause urban population growth to eventually increase as a positive thing in development because they are considered a natural process that becomes a channel for surplus labor in urban areas, namely industrial sectors with high absorption capacity. A person's decision to migrate is a response to the hope of obtaining good employment and income opportunities (Todaro, 1983).

Based on the previous discussion, the authors are interested in analyzing and knowing clearly related to the influence of investment and government spending on urban population growth, both directly & indirectly through employment opportunities in South Sulawesi.

## 2. METHOD

This research was conducted in South Sulawesi Province. The type of data used is secondary data in the form of panel data with cross sections of 6 districts/cities and 11 years of time series. The data is sourced from South Sulawesi Regency/Municipal BPS and the Directorate General of Fiscal Balance (DJPK).

The data analysis method used is Regression Analysis Software SPSS. This method is used to determine whether exogenous variables (Investment and Government Expenditures) affect endogenous variables (City population growth) either directly or indirectly through intervening variables (Job Opportunities).

The regression model in this study is:

$$Y_1 = f(X_1, X_2) \dots \dots \dots (4.1)$$

$$Y_2 = f(X_1, X_2, Y_1) \dots \dots \dots (4.2)$$

Where:

Y1 = Job opportunities

Y2 = City population growth

X1 = Investment

X2 = Government spending

$$eY_{1it} = \alpha_0 X_{1it} \alpha_1 X_{2it} \alpha_2 \epsilon_{1it} \dots \dots \dots (4.3)$$

$$Y_{2it} = \beta_0 X_{1it} \beta_1 X_{2it} \beta_2 Y_{1it} \lambda_1 \epsilon_{2it} \dots \dots \dots (4.4)$$

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Then transformed in logarithmic form:

$$Y1_{it} = \ln\alpha_0 + \alpha_1 \ln X1_{it} + \alpha_2 \ln X2_{it} + \varepsilon_1 \dots \dots \dots (4.5)$$

$$\ln Y2_{it} = \ln\beta_0 + \beta_1 \ln X1_{it} + \beta_2 \ln X2_{it} + \lambda_1 Y1_{it} + \varepsilon_2 \dots \dots \dots (4.6)$$

And substituted into:

$$\ln Y2_{it} = \ln\beta_0 + \beta_1 \ln X1_{it} + \beta_2 \ln X2_{it} + \lambda_1 (\ln\alpha_0 + \alpha_1 \ln X1_{it} + \alpha_2 \ln X2_{it} + \varepsilon_1) + \varepsilon_2$$

$$Y2_{it} = \ln\beta_0 + \beta_1 \ln X1_{it} + \beta_2 \ln X2_{it} + \lambda_1 \ln\alpha_0 + \lambda_1 \alpha_1 \ln X1_{it} + \lambda_1 \alpha_2 \ln X2_{it} + \lambda_1 \varepsilon_1 + \varepsilon_2$$

The operational definition used in this study is as follows:

- Job opportunities (Y1), namely the number of workers in 2010-2021 in the province of South Sulawesi in soul units.
- Urban population growth (Y2) is the urban population growth rate (Urban) from 2010-2021 in the province of South Sulawesi in percent units.
- The investment (X1) referred to in this study is the total gross fixed capital formation (PMTB) from 2010-2021 in the province of South Sulawesi in units of millions.
- Government spending (X2) referred to in this study is the total amount of government spending from 2010-2021 in the province of South Sulawesi in billions.

### 3. RESULT AND DISCUSSION

The following is the result of data processing using SPSS software:

Table 1 result of data processing using SPSS software

Variable	Coefficient	tcount	probability	description
X1 to Y1	0.698	9,838	0.000	(+) Significant
X2 to Y1	-0.121	-3,307	0.001	(-) Significant
X1 to Y2	0.834	2,777	0.007	(+) Significant
X2 to Y2	0.286	2,653	0.010	(+) Significant
Y1 to Y2	-2,028	-6,171	0.000	(-) Significant

Table 2 result of data Coefficient

Indirect influence	Parameter	Coefficient
X1 -> Y1 -> Y2	$\alpha_1 \lambda_1$	-1,415
X2 -> Y1 -> Y2	$\alpha_2 \lambda_1$	0.245

#### The effect of investment on employment opportunities

Investment affects employment opportunities. This shows that high investment is able to increase the number of employment opportunities in urban areas of South Sulawesi Province. This is because investment coming into urban areas in South Sulawesi Province has a strong and productive impact on employment opportunities. Where investment is focused on being channeled to create jobs for the community, with high job creation it will also increase people's purchasing power so that in the end people's welfare will also be fulfilled.

This research is in accordance with research conducted by Sri Danawati, et al (2016) whose research results show that the investment variable has a positive and significant effect on employment opportunities.

This research is also in accordance with the research conducted by Lailan Safina and Sri Endang Rahayu (2011) where the results of their research show that the investment variable has a positive influence on employment opportunities in North Sumatra, which means that if investment increases, employment opportunities will also increase.

#### Effect of government spending on employment opportunities

Government spending has a negative effect on employment opportunities. This shows that the increase in government spending in urban areas of South Sulawesi Province has not been able to increase employment opportunities. This is because government spending in the APBD draft, which is derived through routine spending and capital spending, is prioritized for small-scale development and does not have a positive impact on the workforce in urban areas of South Sulawesi Province.

Another empirical study that contradicts this research is Sri Danawati, et al (2016) which says that government spending shows a positive effect on district/city employment opportunities in the province of Bali. This shows that the increase in district/city government spending in the Province of Bali will increase employment opportunities. Government spending, both routine and development, can be a driving force in opening employment opportunities for working people which will ultimately increase people's income and welfare.

#### **Effect of investment on population growth**

Investment affects the growth of urban population. In this case, it can be said that the inflow of investment is right on target and used optimally in urban areas of South Sulawesi Province such as the provision of adequate infrastructure or facilities and infrastructure, especially in economic activities because urban areas are centers of economic activity and as an attraction for non-urban residents to move from village to city.

This research is then associated with the classical migration theory which says that displacement is caused by two main factors, namely push factors and pull factors (Adam, 2010). In this case the intended pull factor is investment where when investment in a company in urban areas increases it will be an attraction for rural communities to move to cities in order to maximize income through providing jobs.

#### **Effect of government spending on population growth**

Government spending affects the growth of urban population. This shows that if the amount of government expenditure is high, it means that it can increase the population growth of the city of South Sulawesi Province. government spending reflects government policy, if you are able to establish a policy to buy goods and services then this expenditure reflects the costs that must be incurred to implement the policy.

This research is supported by the empirical study of Suffina (2022) which says that people aim to go to cities to get welfare and meet unmet needs in their areas of origin. Where with an increase in productive government spending it will be one of the attractions to increase employment opportunities so that people choose to move to obtain welfare as well as stabilize the progress of the city's economic development.

#### **Effect of employment opportunities on population growth**

Employment opportunities have a negative effect on urban population growth. This means that when the employment opportunity is high it will reduce the growth rate of urban population. This is due to the fact that wage setting in urban areas tends to decrease so that non-urban people still choose to continue their economic activities in their place of origin.

The low level of wages earned from informal sector jobs will have an impact on the difficulty of realizing prosperity for the urban community itself. It can be concluded that this is not in line with the Neo-Classical Economic Theory which says that the supply or absorption of labor will increase if the wage rate also increases.

This research then contradicts the Human Capital Theory model where the intention to move is influenced by the motivation to seek better job opportunities and income. And Todaro (1983) also suggests that a person's decision to migrate is a response to the hope of obtaining better job opportunities in the destination area.

#### **The effect of investment on population growth through employment opportunities**

Employment opportunities are able to mediate the relationship between investment and urban population growth, where investment is needed to meet employment opportunities and increasing population demand. With increased investment it will absorb more labor so that it will reduce unemployment.

In addition, investment that increases from year to year will lead to greater absorption of the working workforce because with high investment, the production process will increase and require an increasing workforce (Sukirno, 2000).

It's just that it doesn't show a unidirectional relationship, namely negative. This is because investment taking place in urban areas of South Sulawesi Province has not been able to meet labor-intensive needs in the primary and secondary sectors, where investment only takes place more dominantly in the tertiary sector and capital-intensive services and then aims to increase or renew capital so that it does not affect absorption. workforce that has an impact on income that can be used to meet the basic needs of the community, especially people who move to urban areas.

This research is supported by empirical studies from Budiarto and Dewi (2015) that investment has a negative effect on employment, in this case employment opportunities. This is because business owners use their investment to buy capital goods in the form of machines to support the production process so that it is more effective and efficient. That is, the use of a very low amount of labor is used in the production process so that it is not able to create more job opportunities and become an attraction for people in increasing their income in the city.

#### **The effect of government spending on population growth through employment opportunities**

Government spending affects the growth of urban population through employment opportunities. This is because the government in urban areas of South Sulawesi Province has fulfilled infrastructure development that is able to provide employment opportunities for people in urban areas. The budget is also used to be distributed to funding that is specifically able to absorb more workers and is able to attract residents outside urban areas to be centered in cities.

This research is also supported by Wagner's theory which says that government spending will always increase along with increasing government activities in order to encourage growth. The planned increase in government spending will increase aggregate demand and stimulate the production of goods and services so that income will also increase. Targeted government spending policies can create employment opportunities.

#### **4. CONCLUSION**

Investment affects the growth of urban population. However, investment does not affect urban population growth through employment opportunities. This happens because this is because the investments that take place in urban areas of South Sulawesi Province have not been able to meet the labor-intensive needs of the primary and secondary sectors, where investments only take place more dominantly in the tertiary sector and capital-intensive services and then aim to increase or renew their capital so that has no effect on employment absorption.

Government spending affects the growth of urban population through employment opportunities. This happens because the government has fulfilled infrastructure development that is able to provide opportunities for people in urban areas. The budget is also used to be distributed to funding that is specifically able to absorb more workers.

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