

Analysis The Effect of Health Expenditure on Economic Growth in Indonesia 1990-2021



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ABSTRACT: The purpose of this study is to examine the effect of government spending in the health sector, on economic growth in Indonesia during the period 1990-2021 to provide policy advice to the Indonesian government. The country was chosen as an object taking account that the economy has grown impressively and contributed to the global economy. A brief overview of the policies developed during the research period is presented to provide insight into the policies taken by the government. The data in this study is time series data from 1990 to 2021. Hypothesis testing using linear regression method with Eviews 10. This research has proven variable health expenditure during the period 1990 to 2021 shows that it has an insignificant influence on economic growth. The existence of limitations in the time series data causes perfect testing cannot be fulfilled.

KEYWORDS: Economic Growth; Health Expenditure; Eviews 10; Linear Regression

INTRODUCTION

Macro accounting is the compilation of economic data for a country, and known as national accounting, the basic data to establish, to track and to estimate the country's economic performance and development and is used to shape government policies (Daniel Liberty, 2021). Economic development refers to the proactive steps a country must take to increase its per capita income. Therefore, active participation in the development process is very important from all levels of society, government, and the state. The three main goals of economic development are as follows: Growth, Equity, Achieving Sustainability. Economic growth as a process of increasing output from time to time is an important indicator of the success of a country's development (Todaro, 2005). GDP is an indicator of economic growth; GDP is one component of macroeconomic accounting that is used to predict a country's national economic growth.

Keynesian theory is used to refer to the idea that optimal economic performance is possible and economic downturns can be avoided. By influencing aggregate demand through aggressive stabilization programs and government economic interventions (Keynes, 1937). Keynes considered fiscal policy through government spending as the main driving component of economic growth. Based on Health Law no. 36 of 2009-chapter 1 Health is a state of physical, mental, and social well-being that enables everyone to live a productive socially and economically life. So that it will produce output, and individual/company income will increase then consume (and or invest), then state income from taxes will increase and affect a country's economic growth. The results of previous studies are still varied from one another. According to many researchers, government spending has a impact on economic growth (Gurdal et al., 2021), (Arvin et al., 2021), (Maulid et al., 2022), (Gupta et al., 1998), (Ndubuisi et al., 2020), (Sari et al., 2016), (Anggraeni Merlin, 2015), (Maulid et al., 2021), (Nabeela Asghar, 2012), (Suescun (2007), (Prasetyo & Zuhdi, 2013), (Irandoust, 2019), (Abdulrasheed, 2017), (Danladi et al., 2015), (Doryan 2001), (Rivera, 2001), (Åhs & Westerling, 2006), (Blinder, 2008), (Fazzari, 1994), (Gupta et al., 1998), (Roşoiu, 2015), (Sari et al., 2016), (Suescun (2007), (Prasetyo & Zuhdi, 2013), (Irandoust, 2019), (Jamil & Santosa, 2017), (Levitt and Joyce 1987; Abizadeh and Yousefi 1998; Bagdigen and Beser 2012; Odhiambo 2015; Williams and Abere 2019; Chirwa and Odhiambo 2019), whereas others have found the opposite, no impact on economic growth (Karagianni et al. 2019; Okere et al. 2019; Rasaily and Paudel 2019; Sedrakyan and Candamio 2019), (Levitt and Joyce 1987; Abizadeh and Yousefi 1998; Bagdigen and Beser 2012; Odhiambo 2015; Williams and Abere 2019; Chirwa and Odhiambo 2019), whereas others have found the opposite (Karagianni et al.2019;Okere et al. 2019; Rasaily and Paudel 2019; Sedrakyan and Candamio 2019), (Landau, 1987), (Grier & Tullock, 1989), (Minea, 2008), (Levine & Renelt, 1992), Holtz-Eakin (1994), Sturm and DeHaan (1995), Slemrod (1995), (Agell et al., 1997). With this phenomenon, researchers are interested in using expenditure from the health sector as a variable for this study.

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Local management is carried out economically, efficiently and effectively or meets value for money and participation, transparency, accountability and justice will encourage economic growth (Gamayuni, 2016). Economic growth can be interpreted as the development of activities in the economy that causes the goods and services produced in society to increase and the prosperity of the community to increase (Rinova & Dewi, 2021). Information technology to interact with the public, provide information for businesses, government services with other governments, governments, and their employees will be able to support economic development because technology helps governments (Aprilia et al., 2022).

This research aims to explore the effect between variables and then examines and analyzes the influence of state tax revenues, health spending on economic growth. Then the research objectives were formulated as follows to obtain empirical evidence on the effect of government spending on the health sector with economic growth Indonesia between 1990-2021."

METHODOLOGY

The analysis of this research is descriptive quantitative. An overview of the effect of health spending on Indonesia's economic growth is obtained by descriptive analysis. Secondary data used for quantitative analysis, using the Ordinary Least Square (OLS) method as the main research technique. The influence of each independent variable, namely Health (x), and the dependent variable, namely Indonesia's real GDP, is explained using the Ordinary Least Square (OLS) approach to changes in Indonesia's GDP.

In this research we determine the effect of health spending on Indonesia's economic growth between 1990 and 2021. The variables calculated by the EViews10 program are tested as part of the data analysis process. using secondary information sourced from the Central Bureau of Statistics, World Bank, Ministry of Finance, as well as relevant publications, magazines, and online media were used to collect data for this study. Time series data from 1990 to 2021 is used.

This study will examine and analyze the effect of health spending on economic growth and will explain the influence of the factors mentioned above. To determine which of the two has a higher impact on Indonesia's economic growth. In addition, analytical test results seek to make defensible conclusions to thoroughly investigate the implications of the effect of the dependent variable on other variables and the effects of the variables that have been tested to build predictive models.

Linear regression is used in analytical procedures, and review is used to process the results. The authors checked conventional presuppositions first to ensure that the regression equation offered an accurate estimate before running many linear regression tests. The following formulation explains how X affects Y:

$$Y = \beta_0 + \beta_1 X_i + \mu_i$$

Y = Economic Growth (GDP)

α = Regression coefficient

X_i = Health Expenditures

e = Variable error

RESULTS AND DISCUSSION

To determine the effect of government spending on health sector on economic growth in Indonesia, the results are as follows:

Dependent Variable: GNP
 Method: Least Squares
 Date: 12/17/22 Time: 16:11
 Sample: 1990 2021
 Included observations: 32

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.170189	0.840618	6.150461	0.0000
KESEHATAN	-1.43E-05	1.40E-05	-1.021481	0.3152
R-squared	0.033612	Mean dependent var		4.655625
Adjusted R-squared	0.001399	S.D. dependent var		3.809528
S.E. of regression	3.806863	Akaike info criterion		5.571949
Sum squared resid	434.7661	Schwarz criterion		5.663558
Log likelihood	-87.15119	Hannan-Quinn criter.		5.602315
F-statistic	1.043423	Durbin-Watson stat		1.458504
Prob(F-statistic)	0.315194			

$$Y_i = \beta_0 + \beta_1 X_i + \mu_i$$

$$Y_i = 5.170189 - 1.4300000 + 1.400000$$

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The negative health expenditure coefficient is -1.4300000, meaning that if health expenditure increases by 1%, economic growth will decrease or decrease by 1.4300000. The probability value is 0.3152 indicating that health expenditure has an effect on economic growth, because the probability value is greater than α 5%. Test the Coefficient of Determination (R^2) Based on the output, the value of $R^2 = 0.033612$ is obtained, meaning that 3.3612% of the value of economic growth is influenced by health expenditures while the remaining 96.6388% is influenced by other factors.

F test (simultaneous influence of variables) if the Prob(F-statistic) value is < 0.05 then the x variable has a significant influence on the y variable. If the Prob(F-statistic) value is > 0.05 then the x variable has no significant effect on the y variable. With a Significance Level: $\alpha = 5\%$. In this study, the Prob value (F-statistic) = 0.315194 $> \alpha = 0.05$, so government spending in the health sector has no significant effect on economic growth.

T test (Partial effect of variables) if the probability value is < 0.05 then the x variable has a significant influence on the y variable. If the Probability value is > 0.05 then the x variable has no significant effect on the y variable. With a Significance Level: $\alpha = 5\%$. In this study, the probability value of health expenditure expenditure = 0.3152, namely the probability value of 0.3152 $> \alpha = 0.05$, so government spending in the health sector has no significant effect on economic growth.

The results of this study can prove Keynesian theory, that spending affects economic growth. This research can also provide empirical evidence in line with several previous studies which concluded that there is an influence between government spending, especially in this study in the health sector, on economic growth in Indonesia. (Gurdal et al., 2021), (Arvin et al., 2021), (Maulid et al., 2022), (Gupta et al., 1998), (Ndubuisi et al., 2020), (Sari et al., 2016), (Anggraeni Merlin, 2015), (Maulid et al., 2021), (Nabeela Asghar, 2012), Suescun (2007), (Prasetyo & Zuhdi, 2013), (Iranoust, 2019), (Abdulrasheed, 2017), (Danladi et al., 2015), (Jamil & Santosa, 2017).

CONCLUSION

Based on the results of hypothesis testing, it is concluded that:

1. Health Expenditures have no significant effect on economic growth in Indonesia in 1990-2021. This can be seen from the results of the significant test F test, which shows that health expenditure has no significant effect on economic growth.
2. The magnitude of the influence exerted by Health Expenditures on economic growth can be seen from R square, it is known that $R^2 = 0.033612$, meaning that 3.3612% of the value of economic growth is influenced by Health Expenditures, while the remaining 96.6388% is influenced by other factors.

From the above results it can be suggested/recommended as follows:

1. If the government continues to update and evaluate every policy that is carried out to improve health services to the community so that everyone's health can live a more productive socially and economically. So that it will produce increased output, then individual/company income will increase then consume (and or invest), then state income from taxes will increase and affect a country's economic growth.
2. It is also hoped that the government will carry out both monetary and fiscal policies through health spending to increase economic activity so that the level of health services is more accessible to the public, easier and procedures are more concise, so that in the end it will increase economic growth. A country can reach the level of providing social health services that are available to everyone is evidence of state spending and success in the welfare of society.
3. This study proves that macro accounting is a compilation of economic data for a country, used to shape government policy as a predictor for the future.
4. For future researchers: it is advisable to use the variable government spending on infrastructure development, especially on capital expenditures.

Conclusions can be generalized findings according to research problems, can also be in the form of recommendations for the next step.

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