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The Impact of Government Expenditure on Economic Growth in Indonesia, Malaysia and Singapore

Mahmoud Ahmed Abdullah [1]✉, Rusdarti[2]

[1.] Azzaytuna University, Libya.
[2.] Economic Education Postgraduate Universitas Negeri Semarang, Indonesia.

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Abstract

Global financial crisis of 2008 led to slowdown of economic growth followed by the decline of global trade volume in the following year. This would have a negative impact on the reduction of production capacity that could trigger a surge of unemployment rate. In a economy if economic growth increases, government spending will also increased. In Indonesia, Malaysia and Singapore, economic growth that indicated by GDP is different each others, so it will be interesting to analyze the relationship between government expenditure and economic growth.The population in this study are the data for government expenditure, HDI and GDP. While the sample is variable data for government expenditure, HDI and GDP during the research period, namely 1990-2015. Data collection techniques in this research is the method of documentation. Data analysis techniques using multiple regression analysis to the equation. The model used are secondary data with regression analysis with classic assumption, that are normality test, multicollinearity test, heteroscedasticity and autocorrelation test. The result of this study showed that there is impact of government expenditure on GDP in Indonesia, Malaysia and Singapore. This can be seen from the p-value or significant value that is lower than 0,05 so the hypothesis accepted. Another result showed that there is impact of economic growth on GDP in Indonesia, Malaysia and Singapore. This can be seen from the p-value or significant value that is lower than 0,05 so the hypothesis accepted.Suggestions of this research as follows: For the government, can pay attention on givernment expenditure and economic growth because based on this research affecting GDP in Indonesia, Malaysia and Singapore. For further research, can add another variables that affecting GDP, such as interest rates, kurs, etc.

✉ Alamat korespondensi:
Bani Walid, Libya.
E-mail: m.aldeeb8911@yahoo.com

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INTRODUCTION

Global financial crisis of 2008 led to slowdown of economic growth followed by the decline of global trade volume in the following year. This would have a negative impact on the reduction of production capacity that could trigger a surge of unemployment rate (United Nations, 2015). The negative impact of weakening global economy would put heavy pressure on the currency throughout the world (United Nations, 2015).

Government spending can have a theoretical basis seen from the identity of the balance of national income is Y = C + I + G + (X-M) which is the source the legitimacy of the Keynesian view of the relevance of government intervention in the economy. From the above equation can be assessed that the increase or decrease in government spending will increase or lowering the national income. Many considerations underlying the government's decision in set of expenses.

Wagner said that in a economy if economic growth increases, government spending will also increase (Wagner, 2009), in which analogy for Wagner's law is by increasing Economic growth in the need for the provision of public goods will also be increased so that the required financing through government revenue, which in turn will increase government spending or can mean high economic growth will also reflect the amount of funds in government spending to finance government services. But the Keynesian flow illustrates the opposite, that with an increase in government spending will boost demand for goods and services in the aggregate so as to encourage economic growth. HDI will also affecting economic growth (GDP).

From the data, it can be seen that Indonesia has strong and stable growth GDP among ASEAN countries, and Malaysia also the same and Singapore in the thrid rank the stable economic growth. This research will analyze the impact of government expenditure on economic growth and GDP in Indonesia, Malaysia and Singapore.

Table 1. Indonesia, Malaysia and Singapore GDP 2012-2014

Year	Indonesia	Malaysia	Singapore
2012	6%	5.5%	3.4%
2013	5.6%	4.7%	4.4%
2014	6%	6%	2.9%

Source: World Bank, 2016

Economic growth is a process total output increases continuously in long-term. Understanding economic growth question is regardless of the increase was larger or smaller than the growth rate population, or whether the change in economic structure are valid or not (Sukirno, 2002).

With the approach of production (production approach) national product orgross domestic product obtained by adding the market value of the entiregoods and services produced by the various sectors in the economy.Thus, the GNP or GDP is the sum of the priceeach of goods and services multiplied by the number or quantity of goodsor services produced.

Government expenditure is the consumption of goods and services that dogovernment and financing the government for purposesadministration and development activities (Sukirno, 2002). The HDI was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. The HDI can also be used to question national policy choices, asking how two countries with the same level of GNI per capita can end up with different human development outcomes. These contrasts can stimulate debate about government policy priorities. In the early stages of economic growth and development, public sector investment as a proportion of the total investment of the economy is found to be high since public

capital formation is of particular importance at this stage. The public sector is therefore seen to provide social infrastructure overheads such as roads, transportation systems, sanitation systems, law and order, health and education and other investments.Loto (2011) found government spending on security, transport and communication was found to have positive but insignificant effect on economic growth. Human Development Index also more higher will affecting more higher GDP.

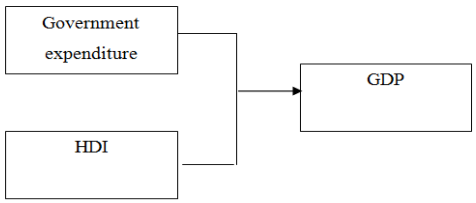

Figure 2.1. Research Framework

METHODS

This research is a quantitative research, which is a type of research that is using numbers. The population in this study are the data for government expenditure, HDI and GDP. While the sample is variable data for government expenditure, HDI and GDP during the research period, namely 1990-2015. Mechanical sampling using purposive sampling, ie sampling technique using specific criteria, namely: only use the data for the last 25 years. Data collection techniques in this research is the method of documentation, ie data that contains information about a subject, object or event past is collected, recorded and compiled in the archives (Indriantoro and Supomo, 2002: 146). Data analysis techniques using multiple regression analysis to the equation. The model used are secondary data with regression analysis as follows:

GDP = a + b1Expenditure + b2 HDI

RESULTS AND DISCUSSION

Descriptive Statistics

The sample in this research is 25 years data from 1990-2014 period from data Indonesia, Malaysia and Singapore (see appendix).The statistic descriptive can be shown in table below:

Table 2. Descriptive Statistics Indonesia

	N	Minimum	Maximum	Mean	Std. Deviation
GDP Growth (%)	25	-13.10	9.00	5.1280	4.18793
GovernmentExpenditure (USDmillion)	25	2071.93	2093.36	2089.4992	4.61180
HDI	25	.48	.69	.6340	.05268
Valid N (listwise)	25				

From the table 2., it can be seen that mean of GDP Growth of Indonesia is 5.1280% this means the average of the year period 1990-2014, Indonesia has means GDP growth 5.1280% with standard deviation 4,18793. Because standard deviation lower than mean this reflected that the data is not high variation.Meanwhile, the government expenditure have mean 2089.4992 (in USD Million) this means the average of the year period 1990-2014, Indonesia has means2089.4992 (in USD Million) in goverment expenditure with standard deviation 4.61180. Because standard deviation lower than mean this reflected that the data is not high variation.The HDI value have mean 0.6340 this reflects the average of the year period 1990-2014, Indonesia has means 0.6340 in HDI with standard deviation 0.05268. Because standard deviation lower than mean this reflected that the data is not high variation.

Table 3. Descriptive Statistics Malaysia

	N	Minimum	Maximum	Mean	Std. Deviation
GDP Growth (%)	25	-7.40	10.00	5.9640	3.92268
GovernmentExpenditure (MYR million)	25	1759.82	1776.69	1772.8572	3.67015
HDI	25	.60	.85	.7376	.06098
Valid N (listwise)	25				

From the table 3. it can be seen that mean of GDP Growth of Malaysia is 5.9640% this means the average of the year period 1990-2014, Indonesia has means GDP growth 5.9640% with standard deviation 3.92268. Because standard deviation lower than mean this reflected that the data is not high variation.Meanwhile, the government expenditure have mean 1772.8572 (in MYR Million) this means the average of the year period 1990-2014, Indonesia has means 1772.8572 (in MYR Million) in goverment expenditure with standard deviation 3.67015. Because standard deviation lower than mean this reflected that the data is not high variation.The HDI value have mean 0.7376 this reflects the average of the year period 1990-2014, Indonesia has means 0.7376 in HDI with standard deviation 0.06098. Because standard deviation lower than mean this reflected that the data is not high variation.

Table 4. Descriptive Statistics Singapore

	N	Minimum	Maximum	Mean	Std. Deviation
GDP Growth (%)	25	-2.20	15.20	6.3080	4.11257
GovermentExpenditure (SGD million)	25	1401.94	1420.65	1411.1152	4.28139
HDI	25	.50	.92	.7424	.16128
Valid N (listwise)	25				

From the table 4. it can be seen that mean of GDP Growth of Singapore is 6.3080% this means the average of the year period 1990-2014, Indonesia has means GDP growth 6.3080% with standard deviation 4,11257. Because standard deviation lower than mean this reflected that the data is not high variation.Meanwhile, the government expenditure have mean 1411.1152 (in SGD Million) this means the average of the year period 1990-2014, Indonesia has means 1411.1152 (in SGD Million) in goverment expenditure with standard deviation 4.28139. Because standard deviation lower than mean this reflected that the data is not high variation.The HDI value have mean 0.7424 this reflects the average of the year period 1990-2014, Singapore has means 0.7424 in HDI with standard deviation 0.16128. Because standard deviation lower than mean this reflected that the data is not high variation. Correlation test in this research is done by Pearson correlation. This is the result:

Table 5. Correlation Test Indonesia

		GDP Growth (%)	Governance Expenditure (USDMilllion)	HDI
GDP Growth (%)	Pearson Correlation	1	.890**	.784**
	Sig. (2-tailed)		.000	.000
	N	25	25	25
GovernanceExpenditure	Pearson Correlation	.890**	1	.615**
(USDMilllion)	Sig. (2-tailed)	.000		.001
	N	25	25	25
HDI	Pearson Correlation	.784**	.615**	1
	Sig. (2-tailed)	.000	.001	
	N	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).

From the table 5. the result showed that there is positive correlation between GDP growth and Governance Expenditure with 0.890 and significant in level 1% because p-value is 0.000. Meanwhile, the correlation between governance expenditure and HDI is 0.615 with positive correlation and significant in level 1% because p-value is 0.001. The correlation between GDP growth and HDI is 0.784 with positive correlation and significant in level 1% because p-value is 0.000.

Table 6. Correlation Test Malaysia

		GDP Growth (%)	Government Expenditure (MYR million)	HDI
GDP Growth (%)	Pearson Correlation	1	.919**	.429*
	Sig. (2-tailed)		.000	.032
	N	25	25	25
GovernmentExpenditure (MYR	Pearson Correlation	.919**	1	.648**
million)	Sig. (2-tailed)	.000		.000
	N	25	25	25
HDI	Pearson Correlation	.429*	.648**	1
	Sig. (2-tailed)	.032	.000	
	N	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

From the table 6. the result showed that there is positive correlation between GDP growth and Governance Expenditure with 0.919 and significant in level 1% because p-value is 0.000. Meanwhile, the correlation between governance expenditure and HDI is 0.648 with positive correlation and significant in level 1% because p-value is 0.000. The correlation between GDP growth and HDI is 0.429 with positive correlation and significant in level 5% because p-value is 0.032.

Table 7. Correlation Test Singapore

		GDP Growth (%)	Goverment Expenditure (SGD million)	HDI
GDP Growth (%)	Pearson Correlation	1	.945**	.417*
	Sig. (2-tailed)		.000	.038
	N	25	25	25
GovermentExpenditure (SGD million)	Pearson Correlation	.945**	1	.546**
	Sig. (2-tailed)	.000		.005
	N	25	25	25
HDI	Pearson Correlation	.417*	.546**	1
	Sig. (2-tailed)	.038	.005	
	N	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

From the table 7. the result showed that there is positive correlation between GDP growth and government expenditure with 0.945 and significant in level 1% because p-value is 0.000. Meanwhile, the correlation between governance expenditure and HDI is 0.546 with positive correlation and significant in level 1% because p-value is 0.005. The correlation between GDP growth and HDI is 0.417 with positive correlation and significant in level 5% because p-value is 0.038.

Multiple Regression Analysis

Tabel 8. Multiple Regression Analysis Indonesia

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-1258.740	173.781		-7.243	.000
	GovernanceExpenditure (USDMilllion)	.596	.085	.656	7.047	.000
	HDI	30.213	7.400	.380	4.083	.000

a. Dependent Variable: GDP Growth (%)

Y = -1258.740 + 0,596X1 + 30.213X2

Interpretation of regression result:

1. The constant is -1258.740 this means if governance expenditure and HDI is zero (0), the GDP growth is -1258.740%.
2. Coefficient beta of governance expenditure (b1) is 0.596 this means the relationship between governance expenditure and GDP growth is positive. So if the governance expenditure one point, so the GDP growth will be increase 0.596%.
3. Coefficient beta of HDI (b2) is 30.213 this means the relationship between HDI and GDP growth is positive. So if the HDI increase one point, so the GDP growth will be increase 30.213%.

From the table 8. the hypothesis testing are:

1. H1: There is impact of government expenditure on GDP

The probability value (sig.t) is 0.000< 0.05 and this means there is impact of government expenditure on GDP. So the hypothesis accepted.

2. H2: There is impact of HDI on GDP

The probability value (sig.t) is 0.000< 0.05 so there is impact of HDI on GDP. So the hypothesis accepted.

Tabel 9. Multiple Regression Analysis Malaysia

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-2072.734	171.987		-12.052	.000
	GovernmentExpenditure (MYR million)	1.180	.099	1.104	11.970	.000
	HDI	-18.434	5.934	-.287	-3.107	.005

a. Dependent Variable: GDP Growth (%)

Y = -2072.734 + 1.180X1 – 18.434X2

Interpretation of regression result:

1. The constant is -2072.734 this means if governance expenditure and HDI is zero (0), the GDP growth is -2072.734%.
2. Coefficient beta of governance expenditure (b1) is 1.180 this means the relationship between governance expenditure and GDP growth is positive. So if the governance expenditure one point, so the GDP growth will be increase 1.180%.

Coefficient beta of HDI (b2) is -18.434 this means the relationship between HDI and GDP growth is negative. So if the HDI decrease one point, so the GDP growth will be increase 18.434%.

From the table 9. the hypothesis testing are:

1. H1: There is impact of government expenditure on GDP

The probability value (sig.t) is 0.000< 0.05 and this means there is impact of government expenditure on GDP. So the hypothesis accepted.

H2: There is impact of HDI on GDP

The probability value (sig.t) is 0.005< 0.05 so there is impact of HDI on GDP. So the hypothesis accepted.

Tabel 10. Multiple Regression Analysis Singapore

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1377.250	103.975		-13.246	.000
	GovermentExpenditure (SGD million)	.982	.074	1.023	13.232	.000
	HDI	-3.607	1.971	-.141	-1.830	.081

a. Dependent Variable: GDP Growth (%)

Y = -1377.250 + 0.982X1 - 3,607X2

Interpretation of regression result:

1. The constant is -1377.250 this means if governance expenditure and HDI is zero (0), the GDP growth is -1377.250%.
2. Coefficient beta of governance expenditure (b1) is 0.982 this means the relationship between governance expenditure and GDP growth is positive. So if the governance expenditure one point, so the GDP growth will be increase 0.982%.
3. Coefficient beta of HDI (b2) is -3.607 this means the relationship between HDI and GDP growth is negative. So if the HDI decrease one point, so the GDP growth will be increase 3.607%.

From the table 10. the hypothesis testing are:

1. H1: There is impact of government expenditure on GDP

The probability value (sig.t) is 0.000< 0.05 and this means there is impact of government expenditure on GDP. So the hypothesis accepted.

2. H2: There is impact of HDI on GDP
The probability value (sig.t) is 0.081< 0.10so there is impact of HDI on GDP. So the hypothesis accepted in level 10%.

CONCLUSION

There is impact of government expenditure on GDP in Indonesia, Malaysia and Singapore.

There is impact of economic growth on GDP in Indonesia, Malaysia and Singapore.

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