ANALYZING INFLATION INFLUENCE TOWARD THE NUMBER OF FOREIGN TOURISTS VISITING INDONESIA AND THEIR IMPACT ON INDONESIA'S ECONOMIC GROWTH

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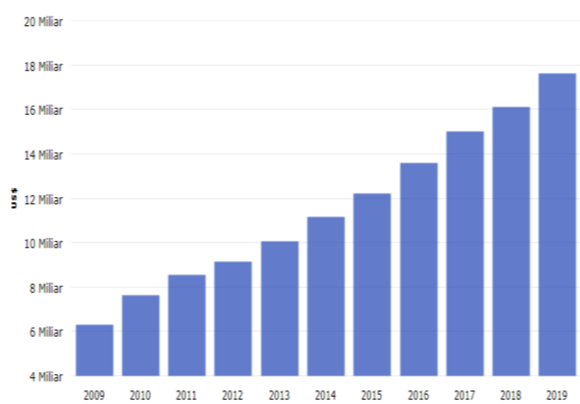
Abstract
The tourism sector is one of the potential contributors to GDP in Indonesia. So the number of foreign tourists visiting Indonesia is considered to have a major influence on Indonesia's economic growth. The acceleration of the tourism sector has made the tourism sector attractive to study. .In addition, inflation is also considered to have an influence on the number of foreign tourists and economic growth. This research was conducted to determine whether or not there was an effect of inflation on the number of foreign tourists visiting Indonesia and Indonesia's economic growth in 2010-2018. The two variables were analyzed because they were considered to have the greatest contribution to Indonesia's economic growth. The analysis technique used is explanatory research with Quantitative Data Analysis. Data analysis was carried out by descriptive analysis and multiple linear regression analysis assisted by the GRETL program.
Keywords: Inflation, Number Of Foreign Tourists & Economic Growth.

INTRODUCTION

Nowadays, tourism is not only enjoyed by the rich but will become a necessity for all levels of society. Furthermore, tourism has even grown to become one of the largest industries in the world, which is characterized by, among others, the development of the number of tourist visits and income derived from international tourists. Based on a report from the World Tourism Organization (WTO), total tourist arrivals around the world in the late 2000 have almost reached 1 billion people per year [2].

Today the role of the tourism industry is increasingly important for the national economy. Throughout 2018, the tourism sector contributed foreign exchange of US $ 14.11 billion. From year to year the numbers tend to rise. In 2017, foreign exchange tourism reached US $ 13.1 billion, previously in 2016 amounted to US $ 11.2 billion, and in 2015 amounted to US $ 10.76 billion. Sources of tourism foreign exchange revenues come from flights, hotels, restaurants, and products of Micro, Small and Medium Enterprises (MSMEs). This sector also absorbs a large workforce so that it can improve the economy of the community. Of the total foreign exchange of US $ 17.6 billion, the government estimates that the number of foreign tourists reaches 20 million visits a year. The target rose 20.48% from last year's achievement of only 16.6 million visits[13].

Figure 1. The contribution of foreign exchange from the tourism sector to Indonesia's foreign exchange reserves for 2009-2019 (Ministry of Tourism)



Based on data from the Ministry of Tourism, foreign exchange earnings from the tourism sector in 2015 reached US $ 12.23

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billion, equivalent to Rp. 169 trillion. This number is ranked fourth as the biggest contributor of foreign exchange in 2015, under oil and gas, coal and oil palm. Then in 2019, foreign exchange income from tourism is targeted at US $ 20 billion and is the biggest to beat the results of oil and gas exports. To achieve this target, the government is targeting 20 million foreign tourist visits in 2019.

There are many factors influence the number of foreign tourists visiting Indonesia. According to Anggara[1] foreign tourist arrivals are determined by socio-economic conditions and the inflation rate in the destination country. Inflation reflects the increase of prices of goods and services over time. Indonesia‘s inflation in the past 10 years, in 2008 amounted to 11.06 percent, exceeding the target set by the government around 5 percent. However, if compared from the 10-year inflation data series (2009-2018), inflation in 2009 of 2.78 percent was said to be the lowest inflation in Indonesia's history [14]. If prices in a country tend to increase relatively high, foreign tourists will reconsider their interest in visiting Indonesia.

This study aims to prove that Indonesia's economic growth is influenced by factors in the number of foreign tourists and the number itself is influenced by inflation rate.

LITERATURE REVIEW

Inflation is an increase in the price of goods and services in general and continuously. A higher price level causes demand for money to rise. The increasing quantity of money demand, while there is no change in the money supply side, will cause the interest rate to rise and result in a decrease in investment spending [3]. The existence of a central bank plays a role important in controlling inflation in Indonesia, with its monetary policy which includes: interest rate policy; exchange rate policy; mix of macroprudential and monetary policies; and monetary policy communication. Consumer Price Index or CPI is an indicator used to measure inflation. Changes in CPI over time describe the rate of increase (inflation) or the rate of decline (deflation) of goods and services.

Gross domestic product (GDP) is a brief description of the prosperity of a country. It can gauge the economic growth because to assess whether the economy is doing well or poorly can be seen through the total income that everyone in the economy is earning. GDP measures total income and total expenditure at once. Income must be equal with expenditure because transaction has two parties encompassing a buyer and a seller. Every amount of spending by some buyer is an amount of income for some seller. “Gross domestic product (GDP) is the income earned within a country by both residents and nonresident” Mankiw [5] stated GDP is divided into two, namely the current price and the constant price. GDP for current prices is calculated at the current price per year, while GDP at constant prices uses a certain year as the base year

Tourism has several meaning based on expertise. According to Republic of Indonesia Law number 9 of 1990 concerning Tourism: Tourism is everything related to tourism, including the exploitation of tourist objects and attractions as well as businesses related to that field [9]. Law No. 10 of 2009 on Tourism stated that Tourism is "Various kinds of tourism activities and supported by facilities and services provided by the local community, fellow tourists, government, local government and entrepreneurs" [10]. WTO or the World Tourism Organization has different definition regarding tourism, which is a human activity that travels to and lives in destinations outside of its daily environment [2].

RESEARCH METHOD

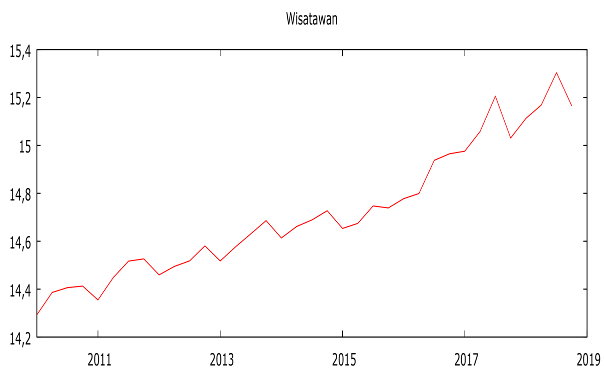
This research uses quantitative analytical method with explanatory research approach, which is about an event regarding causal relations [11]. The data in this study in the form of secondary data and it was taken from the website of Bank Indonesia, the Central Statistics Agency and Ministry of Tourism of Republik Indonesia. The data used in this study is quarterly time series data from the first quarter of the period 2010 - fourth quarter of 2018. Data analysis was carried out by descriptive analysis and multiple linear regression analysis [4] assisted by the GRETL program.

RESULT AND DISCUSSION

This study has three variables which will be presented in the data, which are economic growth as the dependent variable; inflation and total foreign tourist visiting Indonesia as independent variables, which will be described as follows:

Inflation Rate

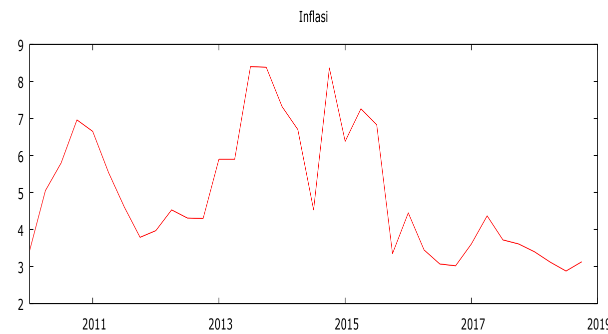
Figure 3. Graph of the number of foreign tourists to Indonesia for 2010-2018



Foreign tourists are tourists which are came from other countries. From the graph above it can be seen that the number of foreign tourists visiting Indonesia during the study period tends to
Inflation is the increase in the prices of goods and services over time. From the picture above we can see that the inflation rate fluctuated during the period of the study year. At the beginning of the study period, in 2010 the inflation rate tended to be low, which was in the range of 3% and at the end of the period also around that value. The highest inflation value in 2013 and the lowest value in 2018.

The number of foreign tourist

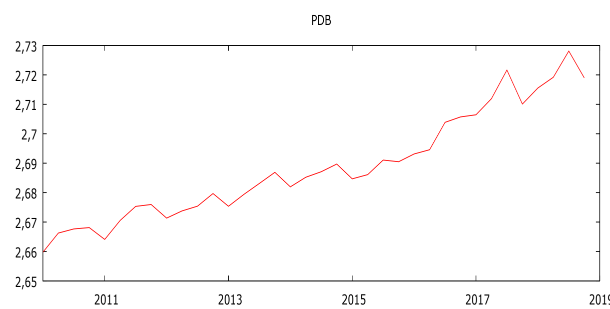
Figure 2. Graph of Indonesia's Inflation for 2010-2018



The picture below is a picture of the number of foreign tourists during the study period.increase. Based on data from the Ministry of Tourism, the highest number of tourists in the third quarter of 2018 and the lowest value in 2016. It was the beginning of the year of research.

Economic Growth

Figure 4. Graph of the economic growth of Indonesia for 2010-2018



The economic growth variable is proxied by gross domestic product (GDP). GDP is one method for calculating national income. From the graph above it can be seen that the Indonesia's economic growth during the study period also tends to increase. Same as the graph of the number of foreign tourists, the highest number of tourists in the third quarter of 2018 and the lowest value in 2016.

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Table 1. Model: OLS, using observations 2010:1-2018:4 Dependent variable: the number of foreign tourists visiting Indonesia.

	Coefficient	*Std. Error*	*p-value*	
Constant	15,0840	0,127604	<0,0001	***
Inflasi	−0,0733750	0,0241818	0,0046	***
R-squared	0,213091			

From table 1 it could be seen that inflation has a p-value of 0.0046 which is less than the sign. 0.05. This means that inflation affects the number of foreign tourists visiting Indonesia.

The equation for the linear regression model is generated as follow:

Y= 15,0840 − 0,0733750inflation

Based on this equation, the relationship between inflation and the number of foreign tourists visiting Indonesia is negative. It means, if the inflation rise 1% the number of foreign tourists visiting Indonesia will fall at 0,0733750% and vise versa.

R-squared of inflation to the number of foreign tourists visiting Indonesia is 0,213091 or 21,3091%. It means that inflation factors affect the number of foreign tourists by 21% and the remaining 79% is influenced by other factors.

According to this statistical result, we can conclude that inflation has a significantly negative effect on the number of foreign tourists visiting Indonesia. It proves the assumption from the previous research that price is one factor of tourists consideration to visit in one country. The higher of prices in one country the lowest of the amount of total tourist will be.

Table 2.Model OLS, using observations 2010:1-2018:4 Dependent variable: GDP

	Coefficient	*t-ratio*	*p-value*	
Constant	1,84492	86,62	<0,0001	***
Inflasi	−0,00347550	−0,8610	0,3952	
R-squared	0,021341			

From table 2 it could be seen that inflation has a p-value of 0.3952 which is more than the sign. 0.05. This means that inflation did not significantly effects on GDP.

The equation for the linear regression model is generated as follow:

Y= 1,84492− −0,00347550inflation

Based on this equation, the relationship between inflation and GDP is negative. It means, if the inflation rise 1% the GDP will fall at 0,0034755% and vise versa.

R-squared of inflation to GDP is 0,021341 or 2,1341%. It means that inflation factors affect the number of foreign tourists only 2,1% and the remaining 97,9% is influenced by other factors.

Based on the statistical result it can conclude that economic growth is not affected by inflation. There are several factor that could have effect on economic growth. According to Sukirno [12]Cla ssic theory states that the factors influencing economic growth encompassing that number of population, stock of capital, land, natural resource, and technology. Classic economic growth theory emphasizes in the influence of population growth towards economic growth. Schumpeter theory emphasizes in the role of entrepreneur's important contribution in economic growth [7]

Neoclassical growth theory is an economic theory that outlines how a steady economic growth rate can be accomplished with the proper amounts of the three driving forces: labor, capital and technology"

The last of hypothesis testing is the two independent variables combine and tested into the software. Here is the result of the test.

Table 3. Model: OLS, using observations 2010:1-2018:4 Dependent variable: GDP

	Coefficient	*Std. Error*	*p-value*	
Constant	−0,00468169	0,297733	0,9875	
Inflasi	,00552176	0,00313363	0,0873	*
JmlWisatawan	0,122620	0,0197143	<0,0001	***
R-squared	0,549486	P-value(F)	1,93e-06	

Based on table 3 it can be seen that p-value for inflation is 0,0873 which is more than the

sign.level 0,05. It means that inflation did not have significant effects on GDP. Whether the number of foreign tourists visiting Indonesia has a p-value less than 0,0001, means this variable has a very significant effect on GDP.
The simultanously effect could be seen from the P-value for F test. The result is 1,93e-06 which is less than sign.level. It can conclude that both varibles simultanously have a significant effect on GDP.
The equation for the linear regression model is generated as follow:
Y = −0,00468169 + 00552176inflation + 0,122620the number of total tourist.

Both independent variables have a positive effect on GDP. The consideration of choosing both variables is correct when seen P-value fo F values has met the requirement.

The R squared is relatively high. It is 0,549486 or 54,9486%. Both independent variables could determine the effect on GDP, while the rest 45,0514% is affected by another factors.

CONCLUSIONS AND SUGGESTIONS

This study successfully proved the hypothesis formed that the number of foreign tourists visiting influences economic growth. In addition, it is also proven that the factor of price increases will affect the number of foreign tourists visiting.

Based on the statistical results it can be seen that the factor of the number of tourists proved to have a very significant positive effect. So the government needs to pay more attention to this tourism sector. Many things can be done to increase national income in the tourism sector. Apart from what the government has done regarding the improvement of infrastructure and facilities, increasing the number of tourist destinations, as well as providing convenience for businesses in the tourism sector, it is believed that it will provide a greater multiplier effect in this field.

Regarding inflation factors that have a proven negative effect on the number of foreign tourist visits, the government needs to control national inflation even better. Instruments carried out by central banks such as quantitative and qualitative policies to control inflation must be carried out as much as possible. Given that the tourism sector is proven to be able to contribute large amounts of foreign exchange, domestic prices, which are one of the factors for visiting foreign tourists, should not experience an alarming increase. The higher the price increase of domestic goods, the lower the number of foreign tourists visiting in Indonesia and vice versa.

REFERENCES

[1] Anggara, Pratika Fitri. 2013. Analisis Dampak Kedatangan Wisatawan Asing dan Faktor Penentunya Terhadap Pertumbuhan Ekonomi Indonesia 1974-2011. Skripsi. FE UI.
[2] Alika, Rizky. 2019. "*Government Targets Tourism Foreign Exchange Reaches US $ 17.6 Billion*", https://katadata.co.id/berita/2019/03/18/pemerintah-target-devisa-tourism-reach-us-176-billion
[3] Case, Karl E & Ray C Fair. 2007. *Prinsip-prinsip Ekonomi*. Edisi Kedelapan. Jilid 2. Diterjemahkan oleh: H. Wibi Hardani dan Devri Barnadi. Jakarta: Erlangga.
[4] Gujarati, Damodar. 2010. *Dasar-Dasar Ekonometrika*. Buku 1. Ed.5. Jakarta: Salemba Empat
[5] Mankiw, N. Gregory. 2012. *Principles of Economics, Sixth Edition*. Stamford: Cengage Learning.
[6] Nizar, Muhammad Afdi. 2011. *Tourism Effect on Economic Growth in Indonesia*. MPRA Paper. Online at http://mpra.ub.uni-muenchen.de/65628/
[7] Novales, Alfonso, Esther Fernandez and Jesus Ruiz. 2014. *Economic Growth: Theory and Numerical Solution Methods*. Heidelberg: Springer.
[8] (www.instopedia.com, 2016)
[9] The Law of Republic of Indonesia No. 9 of 1990 on Tourism

ISSN No. 1978-3787 (Cetak)
ISSN 2615-3505 (Online)

[10] The Law of Republic of Indonesia No. 10 of 2009 on Tourism

[11] Sugiyono. 2005. *Metode Penelitian Administrasi*. Bandung: Alfabeta.

[12] Sukirno, Sadono. 2012. Makro Ekonomi Pengantar. Jakarta. Penerbit Raja Grafindo Persada.

[13] ["*What is the Foreign Exchange Income from the Indonesian Tourism Sector*?"], Https://databoks.katadata.co.id/datapublish/ 2018/09/10/ber-pendapatan-devisa-from-Indonesian-tourism sectors

[14] https://news.detik.com/kolom/d-4406982/10yearschallenge-potret-inflasi-nasional