

## **ANALYSIS OF ECONOMIC GROWTH ON JAVA ISLAND**

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### ***Abstract***

*The island of Java has favorable geographical conditions, easy trade routes, advanced infrastructure so that it has become an economic center which can have an impact on economic growth in Indonesia. Therefore, it is necessary to analyze more deeply the impact of variables that can influence economic growth on the island of Java. Among them are the influence of Zakat, Inflation, Government Expenditures and Exports on Economic Growth on the Island of Java. This research uses quantitative methods and Eviews 10 tools, as well as data obtained from the Central Statistics Agency (BPS) and BAZNAS. The research results show that Zakat has a significant positive effect on economic growth because Zakat helps many MSMEs obtain capital to run their businesses. Government spending has a significant positive effect on economic growth because government spending is used to support education and infrastructure on the island of Java, especially in big cities and areas that need education funds. Exports have a significant positive effect on economic growth because expanding exports can increase the country's foreign exchange and can add new jobs, while inflation has no effect on economic growth on the island of Java because the inflation rate is quite stable due to government supervision to target inflation rates, so there is no had a significant impact on reducing economic growth on the island of Java.*

**Keywords:** *Zakat; Inflation; Government expenditures; Export; Economic growth*

### **Introduction**

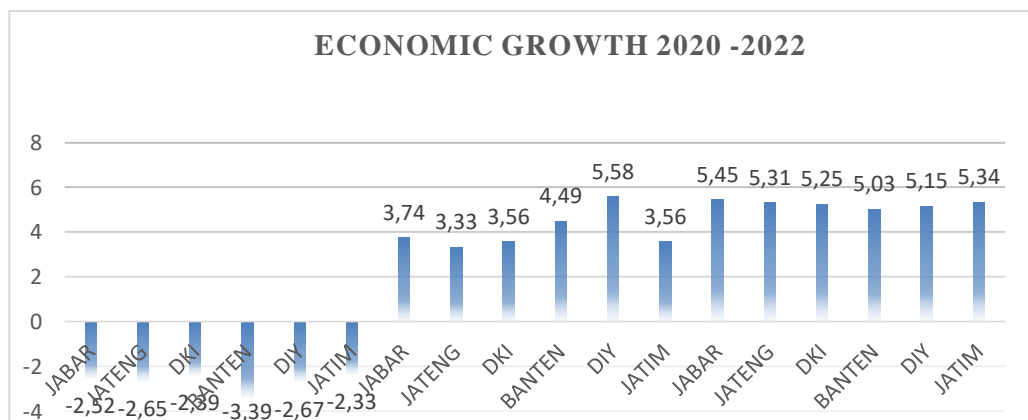
Economic growth is an effort to increase the real standard of living per capita. Thus, the aim of economic growth is not only to increase real national income but also to increase productivity. Growth, in general, can be understood as an effort to further increase the productivity of potential resources owned by a

country in the form of natural resources, human resources, as well as financial resources and, community development, technology so that economic growth plays an important role.

Growth in general can be understood as an effort to further increase the productivity of potential resources owned by a country in the form of natural resources, human resources, as well as financial resources and, community development, technology so that economic growth plays an important role in measuring the welfare of a country, including the islands in it. One of the islands that has favorable geographical conditions, easy trade routes, advanced infrastructure so that it has become an economic center that can have an impact on economic growth in Indonesia is Java.

The island of Java is a milestone in encouraging economic growth in Indonesia. This is because, in terms of human resources, infrastructure and natural resources, Java Island is better prepared to become a location for industrial development than other islands.

In the process of implementing economic development, of course a country cannot be separated from various challenges and problems that must be faced. At certain times, an economy will experience a slowdown in its development; Of course, this will be a problem for economic progress which can ultimately lead to economic instability. Problems in the aggregate economy that can cause economic instability basically include problems regarding economic growth, instability in economic activity, unemployment, inflation, balance of payments imbalances, the APBN, and the COVID-19 problem, especially on the island of Java.



**Figure 1. The Economic Growth Rate for the Island of Java (2020-2022)**

The graph above shows the economic growth rate for the island of Java starting from the beginning of the 2020-2022 pandemic. By having a high population, it is able to increase its growth in a significant positive direction. This cannot be separated from various factors, such as how the island of Java was able to fall, survive, recover, and succeed in a positive trend.

In this research, we raised Zakat as a variable research, where Zakat and the economy are two things that influence each other. Apart from having an economic role, they also have a social role. As a result, Islamic economics cannot be separated from Zakat and Waqf, which are potential instruments for improving the economy (Arwani et al., 2022). Moreover, six provinces on the island of Java are predominantly Muslim, so they can also have a big impact on their economy. By increasing consumption in mustahik, it will be able to increase the national real GDP because aggregate consumption increases. Meanwhile, other research uses the sukuk variable as a sharia economic variable with the result that sukuk has a negative effect on economic growth in OIC countries (Fatimah & Rahmayanti, 2023).

Inflation is an important indicator in economics that measures the general rate of increase in prices. Stable and controlled Inflation can create an economic climate that is conducive to growth. However, high Inflation can disrupt economic stability and reduce people's purchasing power. According to previous researchers Nabila and Anwar (2021), Inflation simultaneously influences economic growth.

Another factor that is appointed as a variable is government spending; through the government budget, spending on infrastructure development and social programs can provide a positive stimulus for economic growth. According to Magdalena and Suhatman (2020), simultaneous government spending positively affects primary economic growth.

Then, the export variable is a variable that can increase economic growth because exports are a very important source of foreign exchange for the needs of an open economy. Exporting widely to various countries may increase production volume and encourage economic growth, which will greatly contribute to growth and stability. Economy in line with the results of Zulzilah et al. (2022), exports in Indonesia directly have a positive and significant impact on economic growth. In

our opinion, it is important for us to examine how Zakat in provinces with a Muslim majority can have an impact on economic growth, as well as economic problems, namely Inflation, and then how Government Expenditure variables can impact the economy and Exports in Indonesia on Economic Growth on the Island of Java using data panel from 2012 to 2022.

## **Literature Review**

### **Harrod-Domar Theory**

This theory is one of Keynes's theories. This Theory assumes that if the means of production are used at full capacity, the amount of savings is proportional to national income, the ratio between capital and production does not change and is in the form of a two-component economy. This theory explains that in the long term, economic growth can be achieved if total costs increase, investment, government spending and net exports continue to increase in large amounts to achieve stable economic growth (Yunianto, 2021).

### **Zakat**

One of the instruments in sharia economics that has a social and economic role is Zakat (Arwani et al., 2022). Zakat is one of the Islamic fiscal instruments, which in Indonesia is a country with a Muslim majority, it is important for Muslim countries to manage Islamic fiscal affairs. Indonesia itself has formed an institution that regulates and manages zakat funds, namely the National Zakat Agency which is spread across various provinces and every region. Zakat is the main variable because the potential for zakat is large in contributing to poverty and economic development. Zakat institutions try to manage their funds as best as possible through many programs that are already running, so that Zakat and the economy are two things that influence each other. Therefore, Islamic economics cannot be separated from Zakat and Waqf which are potential instruments for improving the economy.

### **Inflation**

High or uncontrolled inflation will cause hyperinflation which will of course have a negative impact. Inflation like this will cause prices to rise

rapidly, reduce people's purchasing power, reduce investment and slow down economic growth in the journal (Hoang Tien, 2021). says that Inflation has a Negative effect on Economic Growth

### **Government Expenditure**

Spending plays an important role in the economy (Pratama & Utama, 2019). Through the government budget, spending on infrastructure development and social programs can provide a positive stimulus for economic growth (Pratama & Utama, 2019), (Mahzalena & Juliansyah, 2019). However, inappropriate spending can result in budget deficits and create economic imbalances. With the large amount of the State APBD allocated for policies such as regional spending which is distributed to education which will increase human resources who are more qualified and able to compete in the global economic world, the budget for infrastructure will provide efficiency in distributing goods or services and will provide a multiplier effect which will have an impact on increasing a country's economic growth.

### **Export**

According to Zulzilah et al., (2022), Exports are a source of foreign exchange that is really needed by countries or regions with open economies because exporting widely to various countries may be able to increase production volume, encourage economic growth so that it will greatly contribute to economic growth and stability. According to Muhammad Adnan et al., (2022) exports are commercial activities that stimulate the growth of domestic demand, create large manufacturing industries, as well as stable political structures and efficient social institutions.

### **Research Methodology**

This research is quantitative in nature with secondary data. The estimation model used in this research is panel data multiple regression. Panel Data Regression Analysis is a regression analysis that uses combined data, namely Time Series data from 2012-2022 and Cross Section data from 6 Provinces on the island of Java, namely Banten, DKI Jakarta, West Java, Central Java, East Java and DI

Yogyakarta. This method was carried out with the aim of finding out the influence of each dependent and independent variable. In testing this method, data was taken from the Central Statistics Agency to obtain data on Inflation, Government Expenditures, Exports, and Economic Growth, then the National Zakat Amil Agency for Zakat data.

Panel data regression in research requires carrying out several stage tests. The stages of the analysis method used in this research include the stationarity test, classical assumption test, model selection test (Common Effect Model, Fixed Effect Model, and Random Effect Model), Chow test, Hausman test, and Lagrange Multiplier test.

### Result and Discussion

1. The stationary test in this test uses the Unit Root Test with the Augmented Dickey-Fuller Test Equation test, where the data will be said to be stationary if the probability value is less than 0.05

**Table 1**  
**Stationary Test Results at 1<sup>st</sup> Different level**

NO	Variable	Prob*	Note
1	X1 (Zakat)	0.0000	Stationary
2	X2 (Inflation)	0.0000	Stationary
3	X3 (Government Expenditure)	0.0000	Stationary
4	X4 (Export)	0.0469	Stationary
5	Y (Economic Growth)	0.0000	Stationary

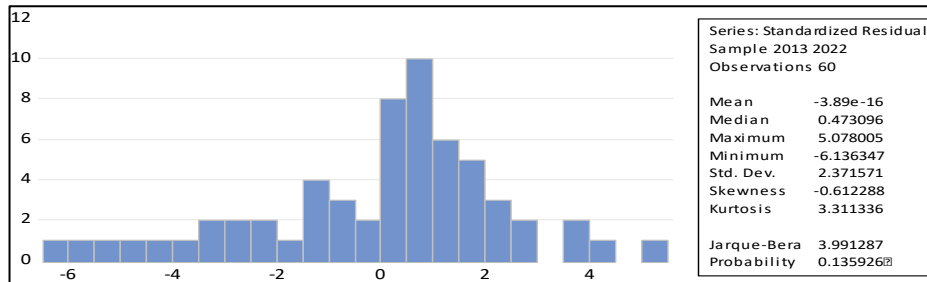
By re-testing stationarity in this study, the results were found to be stationary at a level of 1<sup>st</sup> different, with all variables used in this study showing a probability of < 0.05. Thus, the independent and dependent variables meet the requirements of the stasis test and can be carried out further tests.

2. Classic assumption test

#### Normality test

The normality test is used to determine whether the residual values are normally distributed or not. The method used in this test is the Jarque-Bera test, where research data can be said to be normal if the Jarque-Bera probability value is more

than the critical value or 0.05.



**Figure 1 Normality Test Results**

Based on the results above, using the Eviews program, the results were a Jarque-Bera value of 3.991287 and a Probability value of 0.135926, where this value exceeded the critical value. Thus, the Normality Test shows that the research data is normally distributed.

**Multicollinearity Test**

**Table 2**

**Multicollinearity test results**

	D(ZAKAT)	D(INFLASI)	D(PP)	D(EKSPOR)
D(ZAKAT)	1.000000	0.077888	0.171263	0.156759
D(INFL...)	0.077888	1.000000	-0.091213	0.467768
D(PP)	0.171263	-0.091213	1.000000	-0.076764
D(EKS...)	0.156759	0.467768	-0.076764	1.000000

It can be concluded that this data is free from multicollinearity or has passed the multicollinearity test.

**Autocorrelation Test**

In this test, the method used is the Durbin-Watson (DW) method, where this model uses an assessment of  $dU < DW < 4-dU$ . The following are the results of the autocorrelation test.

**Table 3****Autocorrelation test results with AR**

— Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.647012	0.365271	-4.509007	0.0000
D(X1)	7.68E-05	2.90E-05	2.650966	0.0108
D(X2)	-0.274678	0.193131	-1.422237	0.1614
D(X3)	0.000237	7.67E-05	3.083819	0.0034
D(X4)	6.92E-05	1.31E-05	5.299269	0.0000
AR(1)	-0.460949	0.151826	-3.036038	0.0039
R-squared	0.663027	Mean dependent var		-0.077778
Adjusted R-squared	0.627925	S.D. dependent var		3.694402
S.E. of regression	2.253508	Akaike info criterion		4.567293
Sum squared resid	243.7584	Schwarz criterion		4.788291
Log likelihood	-117.3169	Hannan-Quinn criter.		4.652523
F-statistic	18.88891	Durbin-Watson stat		2.097483
Prob(F-statistic)	0.000000			

The Durbin-Watson (DW) value is 2.097483, with a sample size of 54 (n) and 4 (k) independent variables. In this way, we get a dL value of 1.4069 and a dU value of 1.7234, and the values that will also be used to compare are 4-dU of 2.4563 and 4-dL of 2.8122. So, we get the Durbin-Watson (DW) value table as follows.

**Table 4****Comparison Results of DW values**

dL value	dU value	DW value	4-Du Value	4-dL value
1.4069	1.7234	2.0974	2.2766	2.5931

The results from the table above show that there are no symptoms of autocorrelation. This could happen because the DW value is not in the part or region where there is a trigger for autocorrelation.

**Heteroscedasticity Test****Table 5****Heteroskedasticity Test Results**

— Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.124658	0.023885	5.219156	0.0000
D(LOGZAKAT)	-0.040166	0.029328	-1.369524	0.1772
D(LOGINFLASI)	0.024137	0.048679	0.495843	0.6223
D(LOGPP)	0.008924	0.063705	0.140090	0.8892
D(LOGEKSPOT)	0.331183	0.195957	1.690082	0.0975

In accordance with the results of the heteroscedasticity test using the



Glejser method as above, the probability value of each variable shows a probability value  $> 0.05$ , so no symptoms or problems of heteroscedasticity were found in each of the variables of this research.

### 3. Model Selection Test

**Table 6**  
**Test Chow**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.137715	(5,50)	0.9827
Cross-section Chi-square	0.820652	5	0.9757

In determining which model to choose between, the fixed effect model and the common effect model, the results of the Chow test above show a probability value of more than 0.05, so the model chosen for this test is the Common effect model.

**Table 7**  
**Common Effect Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.664883	0.394304	-4.222337	0.0001
D(ZAKAT)	8.78E-05	3.14E-05	2.793508	0.0072
D(INFLASI)	-0.171318	0.141307	-1.212382	0.2305
D(PP)	0.000272	7.73E-05	3.517188	0.0009
D(EKSPOR)	7.06E-05	1.22E-05	5.810890	0.0000
R-squared	0.541542	Mean dependent var		-0.094833
Adjusted R-squared	0.508200	S.D. dependent var		3.502567
S.E. of regression	2.456297	Akaike info criterion		4.714842
Sum squared resid	331.8366	Schwarz criterion		4.889371
Log likelihood	-136.4453	Hannan-Quinn criter.		4.783110
F-statistic	16.24185	Durbin-Watson stat		3.005833
Prob(F-statistic)	0.000000			

### Discussion

Zakat has a significant positive effect on economic growth on the island of Java. The productivity of a region will experience significant changes due to various factors, both internal and external factors. Likewise, Zakat has great potential to overcome poverty and increase economic growth, and increasing

Zakat received can increase consumption of mustahik or people who are entitled to receive it in 8 groups, so that it can increase aggregate consumption which will ultimately increase national real GDP. Zakat is also distributed in the form of productive Zakat, such as providing capital to advanced MSMEs, which is expected to reduce unemployment and increase the level of welfare. (Hasibuan & Harahap, 2023) , on the island of Java, in order to prosper the mustahik, Baznas launched an effort to advance MSMEs and provide assistance to reduce poverty and collection to reach 83.855 million people on the island of Java. One form of distribution of zakat funds at Rumah Zakat Semarang is through an entrepreneurship program carried out through the Smile Mandiri program (Ariyani & Rahmayanti, 2021), namely community empowerment which focuses on integrated community empowerment which is hoped to increase the income of an area. So that high Zakat can increase economic growth on the island of Java.

The results of tests carried out by researchers showed that inflation was not significant on economic growth; apart from that, inflation also had an insignificant negative effect on economic growth on the island of Java. Inflation is an indicator that can cause economic imbalance in a country, but this shows that there is no significant impact when Inflation decreases or increases on the economy or economic growth. This indicates that the inflation rate on the island of Java is still at mild Inflation or below 10%. The provinces on the island of Java are able to control their Inflation so that Inflation does not increase to heavily Inflation and does not affect economic growth on the island of Java.

From the results of the tests carried out by researchers, the results showed that government spending had a significant positive effect on economic growth. The government in the provinces of Java Island has carried out regional expenditures on target so that they can increase economic growth in each province. Government spending such as infrastructure, education, or regional spending can provide convenience for many parties, so in the short and long term, shocks to government spending will be responded to in a big way. This shows that government spending that has been budgeted for development has a positive contribution to economic growth (Moridu et al., 2022). Government expenditure on the island of Java with data from BPS states that regional spending for education and infrastructure needs is greatest on Java Island compared to other

islands because government spending on education is able to produce better human resources, which in the end will improve the number of educated workers. The largest APBD and income are on the island of Java, so government spending is able to grow the economy on the island of Java.

From the test results carried out by researchers, exports have a significant effect on economic growth; apart from that, exports also have a positive and significant effect on economic growth. Increased sales or distribution of exports is a reflection of prosperity or prosperity for each region; with increased export sales, it is also able to increase the country's foreign exchange; with increased exports, it can reduce poverty and increase prosperity so that people can adapt to the outside world so that they can raise their standard of living and economic growth (Putra, 2022). In the province on the island of Java, namely in the province of West Java, according to BPS data, it reached \$33.86 billion throughout the year, an increase of 14.62% compared to the previous year and also compared to other islands such as Kalimantan Island, only \$24.3 billion or 9.9%. So, the presence of exports on the island of Java also helps local people sell abroad so that they can reduce unemployment, increase the income of each region on the island of Java, and grow the economy on the island of Java.

### **Conclusion**

In this research, the variables Zakat, Government Expenditures, and Exports have a positive effect on Economic Growth, while the Inflation variable partially has no effect on Economic Growth in Java for the 2012 - 2022 period. Economic growth is an indicator of the success of a country's development process, including each province. When there is weakening economic growth, the government needs to re-analyze what needs to be improved and what needs to be improved. This research shows that there are several variables that have the effect of increasing economic growth. The government needs to improve the management of Zakat so that its distribution is appropriate because Zakat is a variable that can increase economic growth. Likewise, regional government spending and exports can increase economic growth in Java province.

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