

## ANALYSIS OF OPEN TRADE, OIL AND GAS INCOME TAX AND NATURAL RESOURCES ON ECONOMIC GROWTH IN INDONESIA

Nurul Alghi Fahri<sup>1</sup>, Jariah Abubakar<sup>2\*</sup>

<sup>1,2\*</sup>Faculty of Economics and Business, Universitas Malikussaleh, Indonesian (Jariah@unimal.ac.id)

### ABSTRACT

The aim of this study is to determine the impact of free trade, oil and gas revenue tax, and natural resource tax on economic growth in Indonesia. This study uses secondary data and quantitative methods with time series from 1990 to 2023 with a total of 33 years of data obtained from the Central Statistical Agency (BPS) and the World Bank. The model used in this study is ARDL (Autoregressive Distributed Lag) model using Eviews 10. The results of this study show that there is cointegration with the error correction term (ECT) value of -0,570000. In the short and long run, the trade openness variable has a negative and significant impact on economic growth, the oil and gas income tax variable in the short and long run has a positive and significant impact on economic growth, while natural resources have a negative impact. short term and insignificant impact, but in the long term they have a negative and significant impact on Indonesia's economic growth.

Keywords: Open Trade, Oil and Gas Income Tax, Natural Resources, Economic Growth, ARDL.

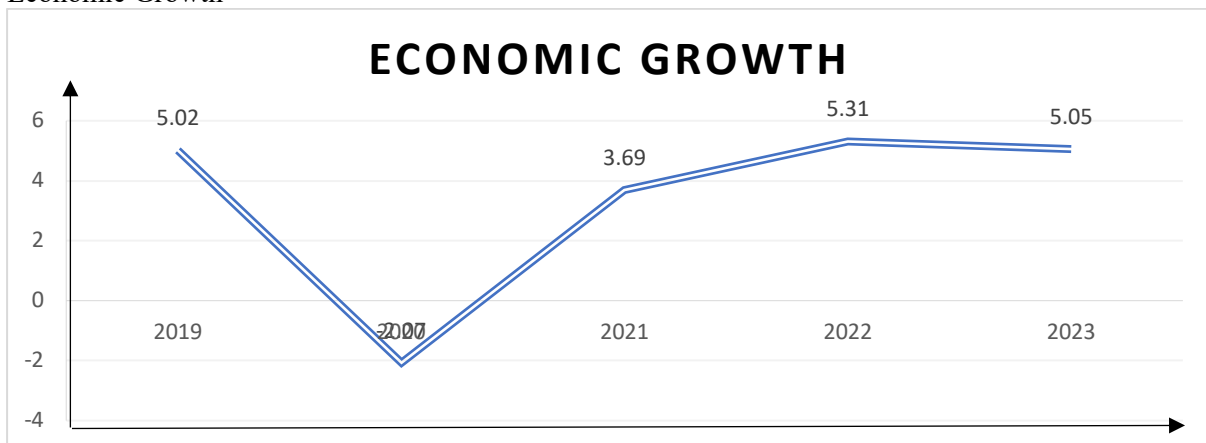
### 1. INTRODUCTION

Economic growth is the process by which the economic situation of a country changes continuously towards a better situation over a period of time. Economic growth can also be interpreted as the process of increasing the productive capacity of the economy, which manifests in the form of an increase in national income. Good economic growth can improve people's well-being. Several factors affect economic growth, such as free trade (Yuni & Lanova, 2021).

Economic growth can also be interpreted as the process of increasing the productive capacity of the supereconomy, which manifests itself in the form of an increase in national income. Good economic growth can improve people's welfare. Mikhral Rinaldi & Abd Jamal (2017), (Wulandari, 2019). According to Sukirno (2016), the most important factor in achieving economic growth is not the increase in capital but the increase in the labor force. The most important factors are technological progress and the skills of employees. It can be explained through the following graph to provide a complete picture of the development of economic growth in Indonesia.

**Figure 1.**

Economic Growth



Data Source: Central Statistics Agency (2024)

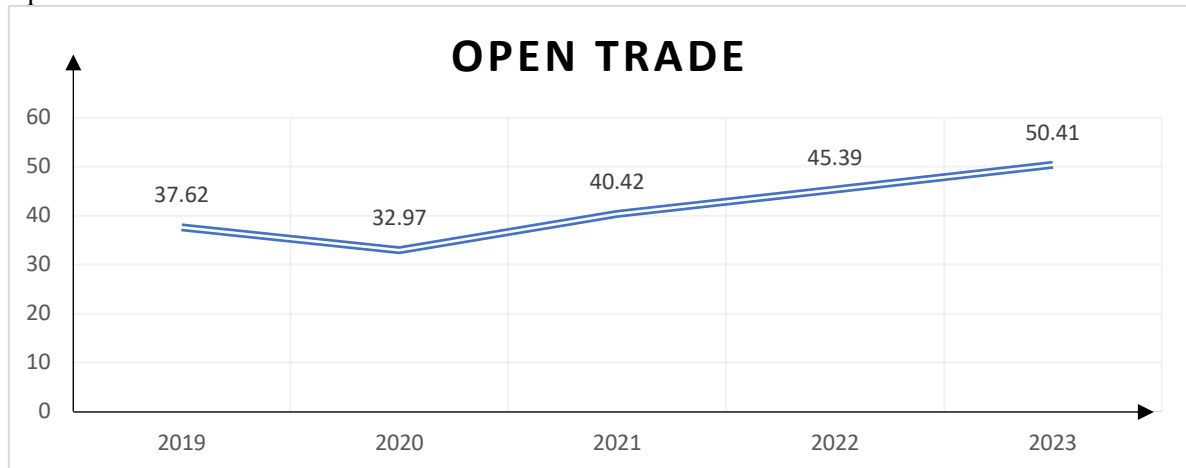
Based on Figure 1, Indonesia's economic growth from 2019 to 2023 tends to increase, and economic growth in 2020 has decreased by Pandemic COVID-19. That means a decline in global and domestic demand. And the following year, in 2023, it will rise by a massive 5.05%. Yuni & Lanova (2021) explain: Several factors affect economic growth, including trade openness. Open trade is an international trading system in the form of goods, services, and schemes, and international trade makes it easier for nations to meet their needs through the supply of one country to another on a mutually agreed basis (Wulandari, 2019).

Open trade mainly includes two aspects: export and import. Export is the activity of sending goods from one country to another, following existing regulations, with the expectation of payment in the form of foreign exchange and economic growth. On the other hand, importing is the opposite of exporting business and involves importing goods from abroad into the country based on need.

Exporting and importing are important activities for countries that adopt an open economic system because the difference in cost incurred between exporting and importing activities basically generates revenue through the country's foreign exchange reserves. Additionally, on the chart of open trades we can see that (Agape et al., 2022).

**Figure 2.**

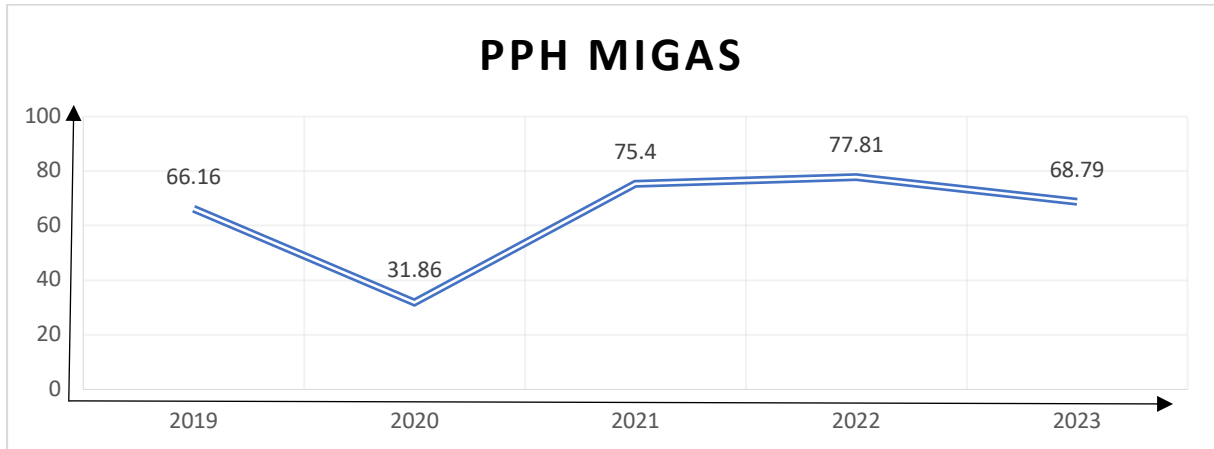
Open Trade



Data Source: Central Statistics Agency (2024)

Based on the data to start trading from 2019 to 2023, if it fell 32.97 % in 2020, it was due to covid-19 pandemic, so each country has closed its access to global marketing. Reducing market demand. After that, he increased again to 2023 and reached 50.41 %. According to Princess (2019), economic growth is closely related to the openness of a country's economy, and free trade has a positive impact on economic growth. Open trade makes it easier for a country to meet its needs, such as exporting and importing oil. Other benefits of free trade include increased government revenue, increased investment and a wider range of jobs. This will provide the government with revenue from the oil and gas industry. The government receives income directly from tax and indirect tax, Viera Valence & Garcia Giraldo, (2019).

**Figure 3.**  
 Oil and Gas Income Tax

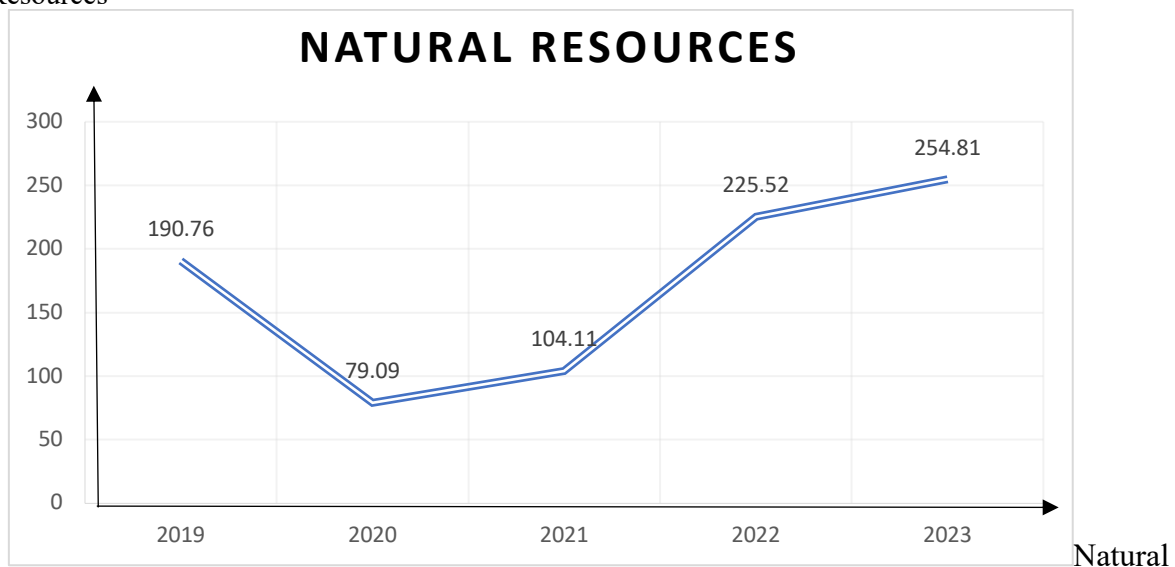


Source: World Bank, 2024

Taxes on profits from the sale of oil and gas were on an upward trend from 2019 to 2023, but fell by 31.81 billion in 2020. According to an EIA report, this is due to the impact of COVID-19 on international oil prices, which led to a decline in demand. (Energy Information Administration) - United States. The decline in petroleum prices affects the decrease in states obtained from petroleum tax and gas tax (PPH) (Andre and Nasrudin, 2019). The following year, he increased 75.4 billion again in 2021.

Natural resources can have a lasting impact on a country's income. They can provide an additional source of financing for investments, which allows for increased production in the future. Funds available for sharing mining profits could be used to build roads, health and education programs. Investment or capital formation is an important variable in controlling for changes in income through the amount of investment (Mondjeli et al., 2024). This can be seen in the natural resources graph below.

**Figure 4.**  
 Resources



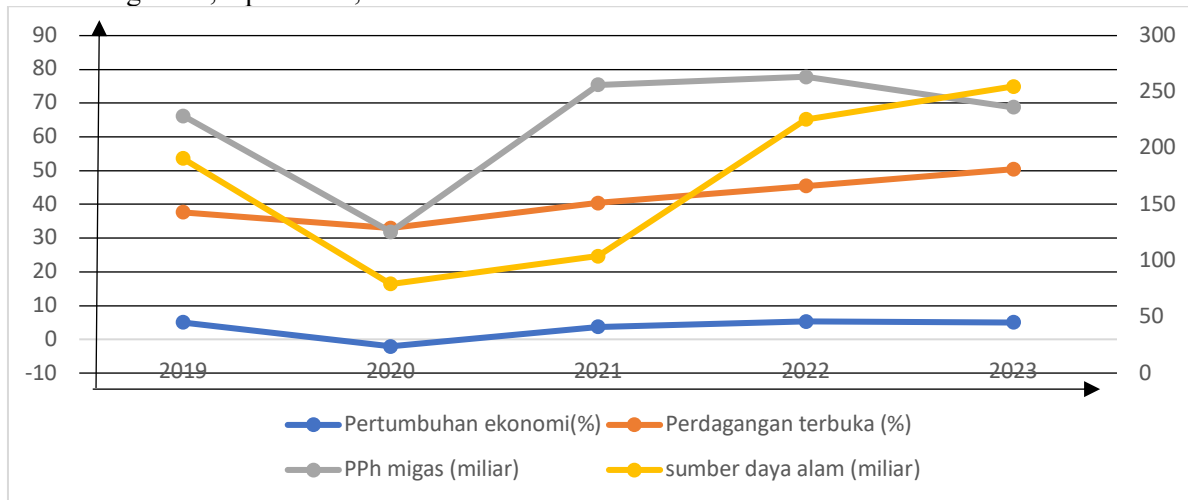
Data source: Central Statistics Agency (2024)

Natural resources from 2019 to 2023 will have an increasing trend, with a lowest value of 79.09 billion in 2019. This is because the COVID-19 pandemic hindered the production process due to lack of demand, and then increased again by 254.81 in 2023. This study focuses on the variables of free trade, oil and gas income tax, and natural resources in

Indonesia's economic growth, as shown in the overall graph below.

**Figure 5.**

Economic growth, Open trade, Oil and Gas Income Tax and Natural



Data source: Central Statistics Agency (2024) And Word Bank (2024)

Based on Figure 5. Economic growth, free trade, oil and gas income tax, and natural resources are on an upward trend from 2019 to 2023, and in 2020 the Covid-19 phenomenon occurred. Damuri & Hirawan (2020), Covid-19 pandemic has been a study in which the company has caused the company to close all aspects of the company, stir the cash market, reduce the production level, and change public consumption and mobilization restrictions. It affects open trade, reducing PPG oil, gas, and natural resources, affecting economic growth, and significantly reduced to -2.07 %.

## 2. LITERATURE REVIEW

### 2.1 Economic Growth

The process of increasing the supereconomy's production capacity, which is reflected in an increase in national income, can also be interpreted as economic growth. According to Arsyad (2017), the four stages through which the factors that are intertwined in the process of economic growth historically in the history of human civilization are the hunting stage, the pastoral stage, the agricultural stage, and the trade stage (cosmerce). Financial development is as per measure improvement and government assistance in a nation and the outcomes for the whole society, where the lower monetary development in a nation can be a benchmark in the achievement pace of improvement and financial circumstances. A country's economic condition is weak if its economic growth is low. This indicates that the country is not developing well (Ngatikoh & Faqih, 2021).

As indicated by, the course of financial development can be partitioned into two fundamental angles, specifically all out yield development and population development. The country's production system consists of three main components in terms of total output growth Situmorang (2021).

- a. The availability of natural resources, which is denoted by the term land, Smith asserts that the population and stocks of existing capital will continue to drive output growth in the event that natural resources have not been utilized to their full potential. If, on the other hand, all natural resources have been utilized to their full potential, then such output will stop growing.
- b. HR, which is addressed by the quantity of population. The growth of output is largely facilitated by human resources. That is, a society's population will change to meet the demands of labor.
- c. In order to raise the economic growth coefficient, capital goods and their level of technology are crucial. If only capital goods rise while technology stagnates, progress will be much slower than it is now.

## 2.2 Open Trade

Open trade is an international trade system in the form of goods, services and modes. Open exchange is a global exchange framework the type of products, administrations and modes, with worldwide exchange it will make it simpler for a country to address its issues starting with one country then onto the next by shared understanding (Wulandari, 2019).

The degree to which non-domestic transactions (exports and imports) have an impact on national economic growth is shown by trade openness. In other words, the greater the impact of these transactions on the domestic economy, the more open the country's economy is (Rizalti, 2023).

Open exchange essentially incorporates two viewpoints, specifically products and imports. The act of shipping goods from one country to another in accordance with regulations in the hopes of receiving payments in the form of foreign exchange and expansion of the economy is known as export. Imports, on the other hand, are the opposite of exports-bringing goods into the country in response to requirements. For a country with an open economic system, exports and imports are important because the difference between their value and the value of the country's foreign exchange reserves is used to generate income. In terms of trade, exports can also be interpreted as one of the indicators supporting a nation's economic growth (Agape et al., 2022).

According to Khairunnisa (2022), the following theories can be used to explain international trade:

1. Theory of Absolute Advantage
2. Comparative Advantage Theory
3. Theory of Heckscher-Olin (H-O)

The open economic system can be seen in how a country exports goods and services to other countries, imports goods and services, or borrows and lends money to the global capital market. As a matter of fact, by and large, at present there is definitely not a solitary country that has never done worldwide exchange exercises, the explanation is that a nation can not create labor and products to address the issues of its country (Rizalti, 2023).

## 2.3 Oil and Gas Income Tax

According to asserts that taxes play a crucial role in the state's life, particularly in the implementation of development, as they provide the state with the revenue necessary to finance all expenditures, including those for economic growth. According to Maebayashi & Morimoto (2024), taxes can increase government revenue.

One of the tax revenue instruments used by the government to collect revenue from the oil and gas industry is the Oil and Gas Income Tax, which is an abbreviation for the oil and gas revenue tax received by the government from upstream oil and gas activities (Erokhin & Zagler, 2024).

Melty (2022), Oil and gas prices will be the primary driver of oil and gas production levels in 2022. Companies will have a tendency to increase production when oil and gas prices are high, while they will have a tendency to decrease production when prices are low. This is because companies will consider cost reductions that will result in lower revenues, which will ultimately affect the amount of corporate income tax.

## 2.4 Natural resources

Natural Resources (SDA) include both biotic and abiotic components, such as animals, plants, and microorganisms, as well as biotic and abiotic components, such as petroleum, natural gas, a variety of metals, water, and soil, that can be used to meet human needs (Nursalam & Fallis, 2020). As per (Saleh et al., 2020). A nation's natural resources serve as its economic foundation for providing social welfare. Numerous nations have historically relied heavily on their natural resources for their development. Because not all natural resources are unlimited, exploration of them must also be accompanied by their upkeep and preservation.

## 2.5 Nature and Types of Natural Resources

Natural resources include more than just the existing supply of materials that can be processed and utilized. However, natural resources themselves are extremely fluid and subject to change. Regarding the quantity of natural resources, timing is everything. As per Shirley Walter Allen in Irawan (1992:103), different natural assets can be delegated as follows:

- a. Natural resources that are not renewable (natural resources that are never-ending) It includes rainwater, sunlight, and air.

- b. Natural resources that can be restored or replaced while still being useful. The term "ini" refers to the water that can be found in bodies of water such as lakes, seas, quality land, forests, and wildlife.
- c. Natural resources that are not renewable (irreplaceable or natural stock resources). Mineral resources like coal, petroleum, and metals are included.

### 3. METHODOLOGY

#### 3.1 Research Design

This study uses a quantitative research method because the research is numerical data. This study uses secondary data with a data series type taken from 1990-2022. The data obtained by the author from the Central Statistics Agency (BPS) and the World Bank. Open trade, Indonesia's oil and gas PPH, and natural resources as free variables, and economic growth as a bound variable, are the subjects of this study. The study's location is Indonesia and spans 33 years, from 1990 to 2023.

#### 3.2 Data Collection

This study utilizes a subjective examination strategy in light of the fact that the exploration is mathematical information. This study makes use of secondary data in the form of data series covering the years 1990 to 2023. The author obtained the data from the Word Bank and the Central Statistics Agency (BPS)

#### 3.3 Data Analysis

The quantitative data analysis method used in this study is time series data, and if the method meets the requirements of ARDL users, the author will process the data using ARDL. It is possible to determine the ways in which dependent variables (bound variables) can be affected by independent variables (independent variables) by managing data using the quantitative analysis of the ARDL method. The Autoregressive (AR) and Distributed Lag (DL) models are combined in the Autoregressive Distributed Lag (ARDL) model. An AR model is one that uses data from the past for one or more of the independent variables and the bound variables. In contrast, the DL model is a regression using data from independent variables from the past and present (lagged) (Gujarati, 2022).

The general steps to be taken in econometric analysis using the Eviews application with this method include testing the stationarity of variable data, both at the level and first difference. This will be followed by the Optimal Lag Determination Test, Cointegration Test, ARDL Model Estimation, ARDL Model Stability Test, Normality Test, Autocorrelation Test, and Heteroscedasticity Test. The model of the equation in this research is:

$$\Delta Y_t = \beta_0 + \sum_{i=1}^n \beta_i + \Delta y_{t-1} + \sum_{i=0}^n \delta_i \Delta X_{t-1} + \varphi_1 y_{t-1} + \varphi_2 y_{t-1} + \mu_t \quad (3.1)$$

Information:

- $\beta_t, \delta_1$  = Koefisien Jangka Pendek
- $\varphi_1, \varphi_2$  = Koefisien ARDL Jangka Panjang
- $\mu_t$  = *Disturbance Error (White Noise)*

### 4. RESULTS AND DISCUSSION

#### 4.1 Result

Data Results In light of Table 1 The Philips-Perront Root Test Unit Test can be reasoned that the factors in this review are fixed at the level, specifically financial development factors and the principal unique, in particular the factors of open exchange, oil and gas annual expense and normal assets, utilizing steady relapse (Intercep) at the degrees of 1%, 5%, and 10%.

Where the probability value falls below 0.05 (Prob 0.05). This implies that all factors can be kept trying both at the level and first unique.

**Tabel.1**  
Data Stationery Test Result

Variable	Unit Root	ADF T – Statistic	Critical Value (5%)	Probability ADF	Information
Growth	Level	-4.161786	-2.957110	0.0028	Stationary

Economics	1st <i>Difference</i>	-5.766325	-2.963972	0.0000	Stationary
Trade Open	Level	-1.086553	-2.963972	0.7079	Not Stationary
	1st <i>Difference</i>	-8.453354	-2.960411	0.0000	Stationary
Pph Oil & Gas	Level	-1.387521	-2.957110	0.5759	Not Stationary
	1st <i>Difference</i>	-7.099996	-2.960411	0.0000	Stationary
Natural Resources	Level	-1.795963	-2.957110	0.3757	Not Stationary
	1st <i>Difference</i>	-6.797304	-2.960411	0.0000	Stationary

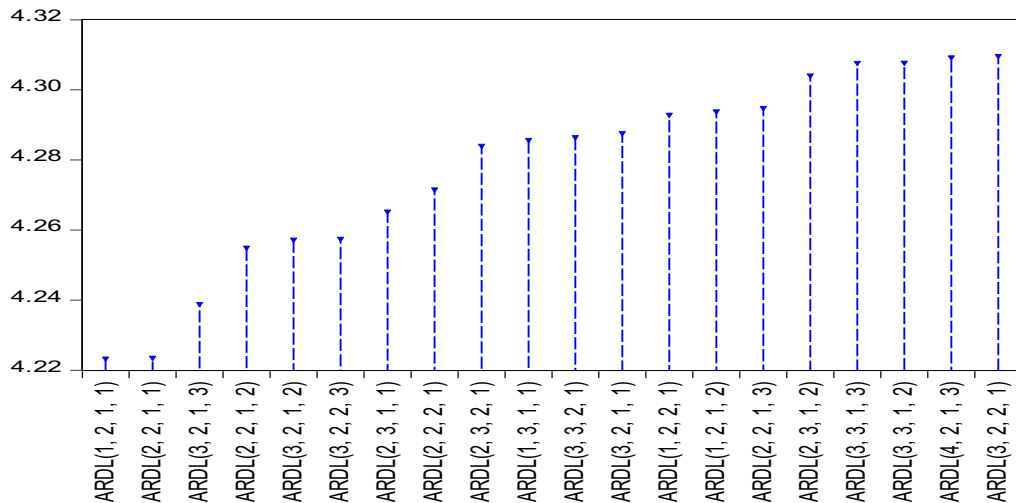
Source: Data Processed, 2024

Based on table 4.2, it can be seen that the results of the stationarity test with Philips-Perront (PP) on the Economic Growth (PE) variable are significant or said to be stationary at the level with  $\alpha$ : 5%. While the Open Trade (PT), Oil and Gas Income Tax (PM) and Natural Resources (SDA) variables are stationary at 1stdifference with  $\alpha$ : 5%. From the results of the stationarity test, the Auto Regressive Distributed Lagged (ARDL) model is a suitable method to use in this study

**Figure 6.**

Test Results for Determination of Optimal Lag

Akaike Information Criteria (top 20 models)



Source: Data Processed, 2024

In Figure 6, the number of lags (time durations) in the ARDL model (HQC) is calculated using the information requirements suggested by the minimum values of the Akaike Information Criterion (AIC), the Schwarz Criterion (SC), and the Hannan-Quinn Criterion. In lag 1, there is only one criterion, and that criterion is the Schwarz Criterion (SC). Likelihood Ratio (LR), Final Prediction Error (FPEI), Akaike Information Criterion (AIC), and Hannan-Quinn Criterion (HQ) are the four criteria in lag 4. Because the Akaike Information Criteria value is (1,2,1,1), it is possible to draw the conclusion that the optimal lag for estimating the general equation of ARDL is lag 4.

**Co-Integrity Test Results**

The Bound test was used to see if the chosen ARDL model had a long-term association. This type of F-statistic will receive greater attention in the Bounds test results. Nillail F-statistic will be benchmarked with Pelsaran criticalvalue at the 5% level. The null hypothesis that there is no long-run association is rejected if the F-statistic exceeds the upperBounds value. This indicates that the variables in the study move together over time. The following table displays the Bound Test's outcomes:

**Table 2.**  
 Results of the Bound Test Cointegration Test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	9.051982	10%	2.37	3.2
K	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66
			Finite Sample: n=30	
Actual Sample Size	30	10%	2.676	3.586
		5%	3.272	4.306
		1%	4.614	5.966

Source: Data Processed, 2024

The results of the cointegration test, which are based on the The bound test yields a higher F-statistic value of 9.051982 than the limit I0. At confidence levels of 10%, 5%, and 1%, F-stats greater than I0 Bound are considered positive. As a result, the tested model has variable cointegration, allowing for a balance between short-term and long-term effects.

ARDL Estimation Results

**Table 3.**  
 Results of Short-Term ARDL Model Estimation

ECM Regression				
Case 2: Restricted Constant and No Tren				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PT, 2)	-0.311629	0.033144	-9.402326	0.0000
D(PT(-1), 2)	0.135355	0.043238	3.130470	0.0051
D(PPH_M, 2)	5.161187	0.770222	6.700905	0.0000
D(PSDA, 2)	-1.227858	0.845097	-1.452919	0.1610
CoIntEq(-1)*	-0.570000	0.077653	-7.340357	0.0000

Source: Data Processed, 2024

Based on table 3, the results of the short-term ARDL test can be formulated

$$\Delta PE_t = -0.570000(-1) - 0.311629\Delta PT_t + 0.135355\Delta PT_{t-1} + 5.161187PPH_M_t - 1.227858\Delta PSDA_t \quad (4.1)$$

In light of the tests that have been done, it is tracked down that the worth of CoIntEq(-1) or Ect (- 1) is - 0.570000 and is huge at alpha 5%, this shows that there is a present moment and long haul relationship in this model. The speed of adaptation, or response to change, is then measured using the CoIntEq coefficient. If the coefficient is negative with a significant probability of 5%, the value of Ect or CoIntEq is correct. Therefore, with a level of validity of 57%, this study can conclude that the model achieves equilibrium.

The variable coefficient of Open Exchange has a worth of - 0.311629 which intends that on the off chance that open exchange diminishes, financial development will diminish by 0.31%. Open exchange affects financial development in light of the fact that the likelihood is  $0.0000 < 0.05$ . Because



the probability value was less than 0.05 a year earlier, open trade had a positive and significant effect on economic growth in the short term.

The oil and gas income tax variable coefficient is 5.161187, which indicates that economic growth will also increase by 5.2% in the event of an increase in the oil and gas income tax. Because the probability is  $0.0000 < 0.05$ , the oil and gas income tax has a positive and significant effect on economic expansion.

The natural resource variable coefficient is -1.227858, which indicates that economic growth in the nation will also decrease by 1.2 percent if natural resource receipts decrease. The receipt of regular assets affects monetary development on the grounds that the likelihood is  $0.1610 > 0.05$ . The processed long-term estimated results in table 5 are the result of the long-term processing:

**Table 4.**  
 Estimation Results of the Long-Term ARDL Model

Levels Equation				
Case 2: Restricted Constant and No Tren				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PT)	-0.852922	0.228235	-3.737027	0.0012
D(PPH_M)	18.12569	5.825419	3.111483	0.0053
D(PSDA)	-12.84229	5.126938	-2.504865	0.0206
C	2.852343	0.769377	3.707340	0.0013
EC = PE - (-0.8529*D(PT) + 18.1257*D(PPH_M) -12.8423*D(PSDA) + 2.8523)				

Source: Data Processed, 2024

Based on Table 4 above, the results of long-term tests using the ARDL model in the table can be formulated as follows:

$$\Delta PE_t = 2.852343 - 0.852922\Delta PT + 18.12569\Delta PPH_M - 12.84229\Delta PSDA \quad (4.2)$$

Economic growth will also remain constant or steady at 285 percent if open trade, oil and gas income tax, and natural resources are constant or constant over the long term, according to the equation at 2.852343.

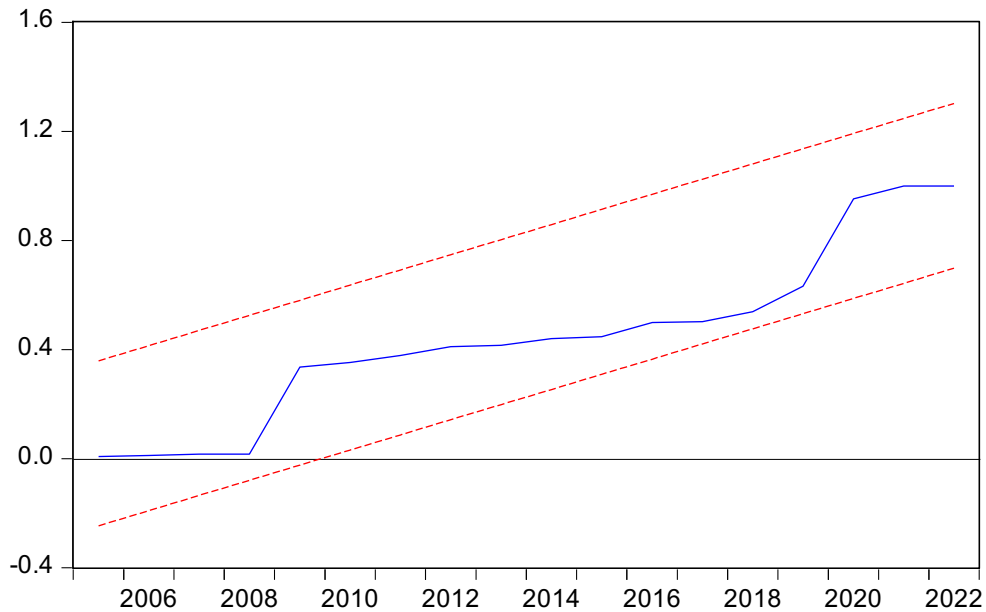
The coefficient of the variable open trade, which is -0.852922, indicates that economic growth will decrease by 0.85% if open trade decreases over the long term. Due to the value of prob, open trade has a negative and significant impact on Indonesia's economic growth.  $0.0012 < 0.05$ .

The coefficient for the variable oil and gas income tax is 18.12569. This indicates that economic growth will also increase by 18% if the tax is raised in the long run. Due to the prob's value, Indonesia's oil and gas income tax has a positive and significant impact on economic expansion.  $0.0053 < 0.05$ .

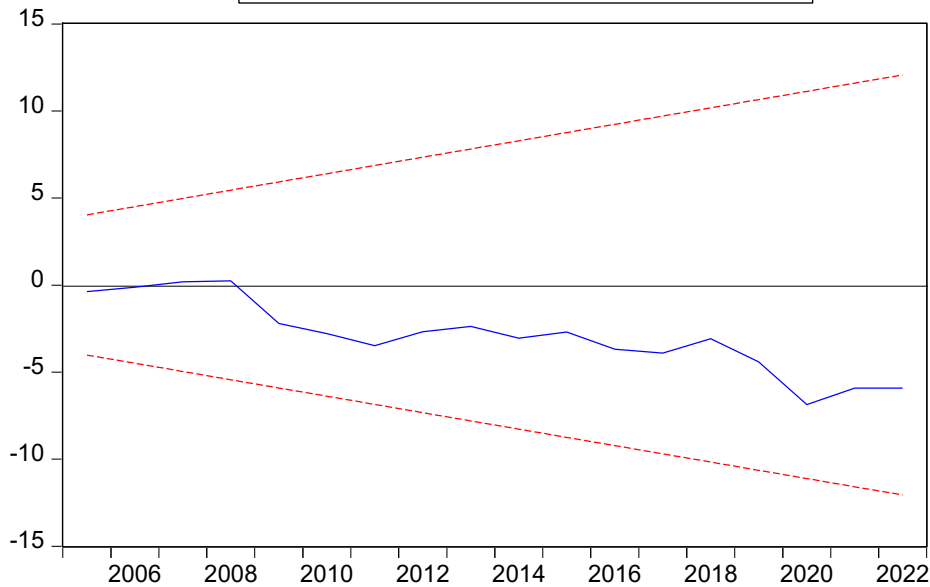
The coefficient of -12.84229 for the natural resource variable indicates that economic growth will also decrease by 12% if natural resource receipts decrease over time. Due to prob's value, natural resources have a negligible negative impact on Indonesia's economic growth.  $0.0206 < 0.05$ .

**ARDL Stability Test Results**

The CUSUM Test's findings can be deduced from Figure 6, which depicts a linear line indicating that the quantity of  $W_r$  does not rise above the boundary line at a significant level of 5%.



— CUSUM of Squares    - - - 5% Significance



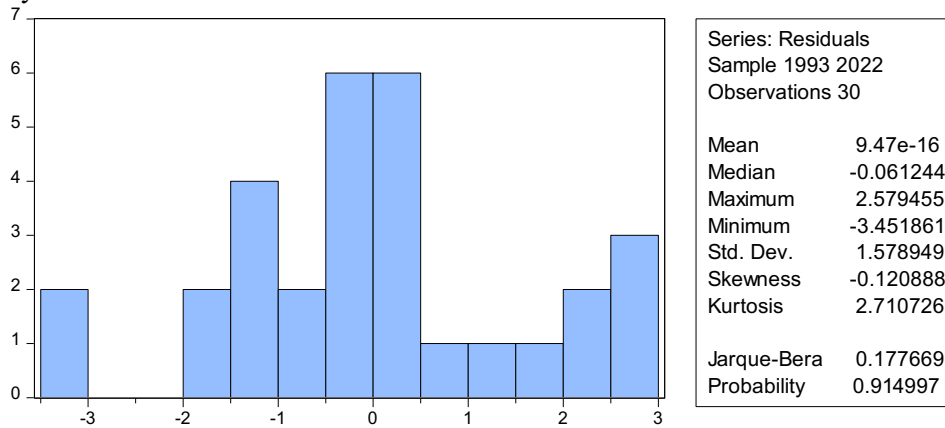
— CUSUM    - - - 5% Significance

The CUSUM test results can be inferred from the fact that the blue line does not cross the dotted red line boundary at the 5% level, indicating that the model is stable. In addition, the CUSUMQ test results can be concluded that the model is stable because the blue line does not cross the dotted red line boundary above 5%.

Normality Test

**Figure 9.**

Normality Test Results



Source: Eviews 10, 2024 (data processed)

In view of Figure 9 above, it shows the aftereffects of the standardization test utilizing the Jarque-Bera strategy (JB-Test). The test resulted in a probability value of 0.914997 that was greater than 0.05. It is possible to draw the conclusion that the data are distributed normally based on these findings.

Autocorrelation Test

**Table 5.**  
Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:		
F-statistic	0.010815 Prob. F(2,19)	0.9182
Obs*R-squared	0.016213 Prob. Chi-Square(2)	0.8987

Source: Research Results, 2024 (processed data)

The autocorrelation test results for Prob values are presented in Table 5. The Breusch-Godfrey Serial Correlation LM test's Chi-Square (2) p value is 0.8987. Nilai Test. The Chi-Square (2) is more prominent than the huge degree of 5% or 0.05 so it tends to be reasoned that there is no autocorrelation issue.

Heteroscedasticity Test

**Table 6**  
Heteroscedasticity Test Results

Heteroskedasticity Test: Breusch-Pagan-Godfrey		
F-statistic	2.211656 Prob. F(8,21)	0.0694
Obs*R-squared	13.71809 Prob. Chi-Square(8)	0.0894
Scaled explained SS	5.749633 Prob. Chi-Square(8)	0.6753

Source: Research Results, 2024 (processed data)

Table 6 shows the consequences of the heteroscedasticity trial of the p esteem the value of the Prob function. Chi-Square has a more noteworthy worth than a rate of 5% or 0.05 that is significant ( $0.6753 > 0.05$ ). It is possible to draw the conclusion that heteroscedasticity is not a problem.

#### 4.2 Discussion

##### The Effect of Open Trade on Economic Growth

With a value of -0.311629, open trade, economic growth will decrease by 0.31 percent if open trade decreases. The probability of open trade having a negative and significant impact on economic expansion is  $0.0000 < 0.05$ . Open exchanging has a coefficient worth of -0.852922 This really intends that on the off chance that open exchange diminishes the long haul, monetary development will diminish by 0.85%. Due to the value of Prob, open trade has a negative and significant impact on Indonesia's economic growth.  $0.0012 < 0.05$ . The findings of the study are consistent with those of Khoirul Ifa's (2020) research. Given that the findings of the study indicated that trade has a significant impact on Indonesia's economic growth, this result further confirms that an increase in trade will have an impact on Indonesia's economic growth.

##### The Effect of Oil and Gas Income Tax on Economic Growth

Open oil and gas income tax has a variable coefficient value of 5.161187, which indicates that economic growth will also increase by 5.2% if oil and gas income tax is increased. Because the probability is  $0.0000 < 0.05$ , the oil and gas income tax has a positive and significant effect on economic expansion. The oil and gas income tax coefficient is 18.12569, indicating that economic growth will also increase by 18% if the tax is raised in the long run. Due to the prob's value, Indonesia's oil and gas income tax has a positive and significant impact on economic expansion.  $0.0053 < 0.05$ . The findings are consistent with those of Saragih's (2018) study, which found that the oil and gas income tax has a positive and significant impact on economic expansion.

##### The Influence of Natural Resources on Economic Growth

Regular assets have a variable coefficient of normal assets has a worth of - 1.227858 which truly intends that in the event that the receipt of regular assets diminishes, monetary development in the nation will likewise diminish by 1.2%. The probability that natural resource receipts will have a negative and insignificant effect on economic growth is  $0.1610 > 0.05$ . The natural resources nillai coefficient is -12.84229, which indicates that economic growth will also decrease by 12% if natural resource receipts decrease over the long term. Due to prob's value, natural resources have a negligible negative impact on Indonesia's economic growth.  $0.0206 < 0.05$ .

This study's findings are consistent with those of Amalia (2023), who found that the use of mining and oil and gas profit-sharing funds to exploit the abundance of natural resources has a positive but insignificant effect on Indonesia's economic growth. However, natural resources have a significant and negative long-term impact on Indonesia's economic expansion. This intends that assuming regular assets decline, financial development will likewise diminish. This is due to the fact that exports of natural resources can make the economy susceptible to changes in global commodity prices. State revenues from natural resource exports also decrease when commodity prices fall, affecting overall economic growth (Sahban, M. A., & Se, M. M. 2018).

## 5. CONCLUSION

Based on the results of the above research, the following conclusions can be drawn:

1. Open trade has a negative and significant impact on Indonesia's economic growth, so if it decreases, Indonesia's economic growth will also decrease.
2. Oil and gas personal expense in the short and long haul annual duty affects financial development, and that intends that assuming oil and gas annual assessment increments, monetary development will likewise increment, since oil and gas annual expense is a wellspring of government income.
3. Regular assets in the present moment have a negative however not huge impact, This shows that unreasonable double-dealing of normal assets is done ideally and reasonably so somewhat normal assets decline, assuming normal assets decline, Indonesia's financial development won't diminish, and the consequences of long haul normal assets affect monetary development. This indicates that economic expansion will be slowed down if natural resources are reduced.

- Indonesia's economy grows significantly and positively as a result of open trade, oil and gas income taxes, and natural resources. This actually intends that assuming exchange is open, oil and gas personal expense and regular assets increment, financial development will likewise increment.

## REFERENCES

- Agape, M., Prasetya, W., Simorangkir, C., Studies, P., Economics, I., Christianity, U., & Wacana, S. (2022). *Indonesia's International Trade: A Comparison in the Pandemic*. 05(01), 82–111.
- Amalia, F., & Emalia, Z. (2023). *The Phenomenon of Abundance of Natural Resources and Natural Resource Curse in an Economic Perspective on the Island of Sumatra*. 01(5), 737–750.
- Andre, M., & Nasrudin, N. (2019). Analisis Dampak Guncangan Harga Minyak Mentah Terhadap Makroekonomi Indonesia: Aplikasi Vector Error Correction Mechanism. *Media Statistika*, 12(1), 13-25.
- Djenni Sasmita. (2022). Post Graduate Accounting of the University of Muhammadiyah Tangerang Analysis of Tax Incentives During the Covid-19 Pandemic Djenni Sasmita. *JAST Journal of Accounting Science and Technology*, 2(1), 1–94. [www.pajak.go.id](http://www.pajak.go.id)
- Erokhin, D., & Zagler, M. (2024). Who will sign a double tax treaty next? A prediction based on economic determinants and machine learning algorithms. *Economic Modelling*, 139, 106819. <https://doi.org/10.1016/j.econmod.2024.106819>
- Mankiw, G. N. (2018). *Introduction to Macroeconomics*. Seventh Edition. Jakarta: Salemba Four.
- Metly, R. P. (2022). Factors affecting the revenue of Petroleum and Natural Gas Income Tax. *Economic Development*, 26(2), 133–152.
- Mikhral Rinaldi, Abd Jamal, C. S. (2017). international trade, foreign investment, and economic efficiency of ASEAN countries. *Bulletin of Monetary Economics and Banking*, 10(3), 49–62. <https://doi.org/10.21098/bemp.v10i3.226>
- Mondjeli, I. M. M. N., Tsopmo, P. C., & Ambassa, M. M. (2024). Re-examining the curse of natural resources in SSA: New evidence from disaggregated natural resources and types of corruption. *Journal of Economic Criminology*, 5, 100072. <https://doi.org/10.1016/j.jeconc.2024.100072>
- Ngatikoh, S., & Faqih, A. (2020). Kebijakan ekspor impor: strategi meningkatkan pertumbuhan ekonomi di Indonesia. *LABATILA: Jurnal Ilmu Ekonomi Islam*, 4(02), 167-190.
- Nursalam, & Fallis, A. G. (2020). Analysis of the Potential of Natural Resources (SDA) and Human Resources (HR) on Economic Development According to the Perspective of Islamic Economics. *Journal of Chemical Information and Modeling*, 53(9), 65.
- Rizalti, Fiqri. (2023). *Angewandte Chemie International Edition*, 6(11), 951–952
- Saleh, H., Surya, B., Ahmad, D. N. A., & Manda, D. (2020). The role of natural and human resources on economic growth and regional development: With discussion of open innovation

- dynamics. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 1–23.  
<https://doi.org/10.3390/joitmc6040103>
- Situmorang, O. N. (2021). *The effect of tax revenue on economic growth in Indonesia* (Thesis).
- Sukirno, S. (2016). *Macroeconomics, Introductory Theory*. Third Edition. Jakarta: PT. King Grasindo Perseda.
- Viera Valencia, L. F., & Garcia Giraldo, D. (2019). Abnormal Return 2. *Angewandte Chemie International Edition*, 6(11), 951-952.
- Wulandari, L. M. (2019). The Influence of International Trade on Indonesia's Economic Growth in 2007-2017. *Journal of REP (Development Economics Research)*, 4(2), 1–189.  
<https://doi.org/10.31002/rep.v4i2.781>
- Yuni, R., & Lanova, D. (2021). The Impact of International Trade on Indonesia's Economic Growth in 2009-2019. 10(1), 62–69.