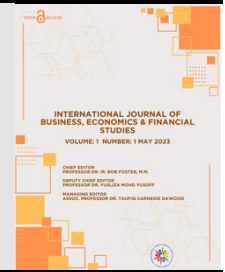


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Original Article

Investigating the Effect of Oil and Gas Exports and Macroeconomic Variables on Gross Regional Domestic Product in Indonesia

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Abstract

This study examines the relationship between oil and gas exports, macroeconomic variables (such as inflation and population), and Indonesia's Gross Regional Domestic Product (GRDP). Specifically, it focuses on seven Indonesian provinces that are the largest oil and gas producers: Aceh, North Sumatra, South Sumatra, Riau, East Java, East Kalimantan, and Papua. Utilizing panel regression analysis, the study analyzes annual data from 2010 to 2022, sourced from the Indonesian Central Bureau of Statistics (BPS) and the respective BPS offices of each province. The findings reveal that oil and gas exports, and total population positively influence GRDP. At the same time, inflation negatively impacts GRDP, particularly in the leading oil and gas-producing regions. Based on these results, the study suggests that the government should consider offering fiscal incentives, such as tax reductions or import duty exemptions. It aims to attract domestic and foreign investment in exploration and production. Furthermore, it advocates for advancements in oil and gas processing technologies to enhance the quality and quantity of oil and gas exports, focusing on finished goods rather than relying solely on raw products.

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1. Introduction

The economic performance of a particular region in a country can be measured by Gross Regional Domestic Product (GRDP). GRDP will provide a measurement of the state of the regional economy reflected through economic sectors (Chen et al., 2016). The size of a region's GRDP is determined by many factors, such as education and infrastructure (Babchynska et al., 2024); exports (Wu et al., 2015); foreign investment (Mykitiuk et al., 2020); industry specialization (Kudrov, 2023); tourism (Neves et al., 2015); human capital investment (Lima & Silveira Neto, 2016); demographics (Bruns & Ioannidis, 2020); financial development (Ho & Lyke, 2018); gross domestic savings (Batrancea et al., 2021); infrastructure (Suriani & Keusuma, 2015); and others.

GRDP also illustrates the success of local governments in maximizing the utilization of existing resources in their regions (Juniarsih et al., 2021). GRDP

will help identify regional potential, thus enabling the maximization of resource use. Indonesia is one of the countries that has abundant resources that can provide various kinds of commodities derived from nature, one of which is oil and gas (oil and gas) products. Aceh, East Java, East Kalimantan, Papua, Riau, South Sumatra, and North Sumatra are Indonesia's largest oil and gas-producing provinces. Overall, all of these provinces have GRDPs that tend to increase from year to year.

The expansion of GRDP in these provinces can be driven by high exports, especially oil and gas exports. Many countries do not share oil and gas resources. This condition allows Indonesian oil and gas to compete in international trade for oil and gas commodities. Indonesia was once an oil and gas exporting country and joined the Organization of the Petroleum Exporting Countries (OPEC) from 1962 to 2009. Indonesia withdrew from OPEC because Indonesia's oil and gas production declined significantly due to reduced oil and

gas reserves and investment in exploration (Boyd et al., 2010).

Nevertheless, there are still some regions in Indonesia that rely on oil and gas exports in their international trade activities compared to non-oil and gas exports, such as Aceh Province, East Java, East Kalimantan, Papua, Riau, South Sumatra, and North Sumatra. Oil and gas exports as part of international trade are very important in the economy because exports are one of the main components of GRDP. High oil and gas exports will help increase GRDP. This statement is supported by the findings of Todorova (2022), Ulya (2022), Wu et al. (2015), and Yahya et al. (2020), which found that exports encourage an increase in GRDP.

According to data published by BPS, Riau Province is a province that exports a high amount of oil and gas. The value of oil and gas exports owned by Riau Province tends to continue to increase. In 2018, Riau's oil and gas exports amounted to USD15,950 million and, in 2022, reached the highest value of USD22,500 million. When compared to other provinces, Riau Province is much higher than other provinces. During 2018-2022, East Kalimantan and East Java provinces had almost the same export results, around USD900-USD3,356.39 million. Aceh and South Sumatra provinces also have almost the same export value, which is between USD92-USD738.06 million.

Meanwhile, Papua, the province with the largest oil and gas resources in Indonesia, has a very low export value, only USD 40-60 thousand in 2018-2020. The following year, there were no oil and gas exports from Papua Province. Similar to Papua, oil and gas exports from North Sumatra have a very low value during 2018-2022, below USD1 million. The decline in oil and gas exports in Papua and North Sumatra can be caused by the decline in oil and gas resource reserves and the prioritization of meeting domestic oil and gas needs first.

If the value of oil and gas exports is too low, it can negatively affect the economy. A decrease in the value of oil and gas exports can lead to a decrease in GRDP for provinces that excel in oil and gas exports compared to non-oil and gas exports, thus impacting overall economic performance (Junita & Kartikasari, 2024). However, the value of oil and gas exports and GRDP will also suffer if inflation is not controlled (Aliraqi & Salih, 2022).

The general price level influences the value of the GRDP in the economy or inflation, where inflation can have a negative impact on the GRDP. High inflation will change conditions in society, especially in consumption activities. High inflation will reduce people's purchasing power due to decreased real income (Chikobava, 2019). Inflation impacts consumer purchasing power by eroding the value of money over time, leading to a decrease in the amount of goods and services that can be purchased with the same amount of money (Bonabi, 2017). In other words, inflation results in a higher cost of fulfilling people's life needs in the present (Febriana & Sartiyah, 2021). People who were originally able to consume more

due to high inflation reduce their consumption of goods and services due to the lower value of money, so purchasing power will also decrease. Therefore, people reduce consumption when inflation is high (Olusola et al., 2022). Therefore, controlling inflation is crucial to ensure a sustainable increase in GRDP (Maiga, 2024).

Data published by BPS related to inflation shows that inflation conditions in the seven provinces during 2018-2022 are still unstable, as seen from the fluctuating inflation values. Fluctuating inflation occurs following conditions in the economy. Fluctuations and uncertainty generated by unstable inflation rates can further reduce consumer purchasing power (Bălăcescu & Zaharia, 2011). Inflation has increased significantly for all provinces (Aceh, East Java, East Kalimantan, Riau, North Sumatra, and South Sumatra), except Papua, in 2022 compared to previous years. This represents a threat to economic stability due to worsening inflation. In addition, by 2022, inflation for all provinces is above 5 percent. An inflation percentage of 5 is already above the inflation rate Bank Indonesia targets. However, Khan & Naushad (2020) argue that moderate inflation (below 3 to 7 percent) can stimulate economic growth by boosting production and reducing unemployment.

International trade and inflation, as well as the population of a region, can also determine GRDP. Indonesia is one of the most populous countries in the world. Population can affect the economy either positively or negatively, depending on the contribution of the population to the economy. On the one hand, a large and qualified population can provide a large labour force to produce goods and services, thus encouraging an increase in GRDP (Rachmawati, 2017). Therefore, the entire population is expected to be involved in economic activities, such as production and consumption (Dahliah & Nirwana Nur, 2021). However, a large population with low quality and rapid growth may lead to problems such as unemployment (Ahmad & Ahmad, 2016). High unemployment will hinder the development of GRDP and contribute to economic decline. A high population can potentially increase labour problems (Jannah & Ernawati, 2023). This is exacerbated by technological advances that can replace labour jobs (Abrar et al., 2019).

Data publications provided by BPS show that the population of each province tends to increase over time. This condition can occur due to high birth rates and life expectancy (Priyono, 2014). East Java has a very high population compared to other provinces, where the population of East Java in 2022 was 41.15 million people. However, in the case of these six provinces, this high and growing population has yet to be discovered, and exactly how it impacts the economy in Indonesia, especially in the seven provinces that produce the largest oil and gas. The results of previous studies related to the effect of population on GRDP may only sometimes be applied to these seven provinces, and there will likely be different results.

The largest oil and gas producing and exporting provinces sometimes have low GRDP. This shows that the relationship between GRDP and oil and gas exports has yet to show a clear direction of influence in the case of Indonesia. Inflation and population are representative of the macroeconomic variables to be studied. Inflation in these seven provinces fluctuates greatly, creating price instability that will affect overall economic performance. The growing population in these seven provinces has either contributed positively to the increase in GRDP or has even burdened the economy by adding other socio-economic problems such as poverty or unemployment.

So far, this research is different from previous studies. In the context of oil and gas exports to GRDP, rare studies still examine oil and gas exports to the regional economy. Most previous studies focused on a broad scope with country coverage. Therefore, this study aims to explore the influence of oil and gas exports, inflation, and population on GRDP in Indonesia by specifically testing this empirical influence on the seven largest oil and gas-producing provinces.

2. Literature Review

Previous relevant research that discusses several researchers has conducted GRDP, oil and gas exports, inflation, and population. The effect of oil and gas exports on gross domestic product is diverse and varies significantly across countries and regions. In Indonesia, oil and gas exports positively impact increasing GDP in both the short and long term. (Cantika & Anggoro, 2022). In contrast, another study on Indonesia found that oil and gas exports alone do not significantly impact GDP due to the fluctuating value of oil and gas exports (Razak & Jaya, 2012). In the U.S., higher natural gas exports led to a slight decrease in GDP (Sarica & Tyner, 2012). A 60 percent drop in oil prices globally could increase about 1 percent in global GDP. Still, the impact varies by region, with oil-dependent economies in the Gulf and Sub-Saharan Africa being particularly vulnerable due to their limited diversification and lack of sovereign wealth funds (Vandyck et al., 2018).

The export-led growth hypothesis states that export expansion drives economic growth and has shown mixed results in the MENA region, where more than reliance on oil exports is needed to guarantee stable economic growth (Abosedra & Tang, 2019). In oil-exporting countries such as Nigeria, energy exports, especially crude oil and natural gas, are the main pillars of the economy, contributing significantly to GDP growth. Nigeria is Africa's largest natural gas and crude oil producer, with large reserves that boost its economic performance through export earnings (Amuda et al., 2023). In Nigeria, oil exports contribute significantly to economic growth, accounting for around 4 percent of GDP growth, while non-oil exports contribute more

significantly at around 10.4 percent (Bakare & Oyelekan, 2015).

For major oil-exporting countries, including OPEC members and others such as Russia and Norway, economic growth is highly dependent on oil prices and production levels, with greater economic upturns when there are positive changes in oil prices (Osintseva, 2022). For OPEC countries, oil production has a significant long-run effect on GDP growth, with panel cointegration tests showing a strong relationship between the two (Yuzbashkandi & Yuzbashkandi, 2022). Oil export revenues in OPEC countries have a positive relationship with GDP in the short and long run (Almulali & Sab, 2013). The strong positive correlation between GDP and its growth with net oil exports in major oil-exporting countries suggests that oil exports are a major driver of economic development (Tvalchrelidze & Sab, 2013).

Several studies have examined the relationship between inflation and GRDP. In an emerging economy like India, inflation poses significant challenges, especially regarding food inflation, driven by both demand and supply factors (Kanwar, 2014). In West Java, Indonesia, inflation negatively and significantly affects people's purchasing power, exacerbated by the COVID-19 pandemic (Halim et al., 2022). In Ghana, a long-term negative relationship between inflation and private consumption expenditure has been observed, with periods of high inflation leading to reduced spending on products and services (Olusola et al., 2022). High inflation can slow economic growth by reducing the real income of households and firms (Chikobava, 2019).

Several studies have studied the relationship between population and GRDP. In Minahasa District, the population was shown to have a positive and significant effect on the number of poor people, which can strain economic resources and potentially hinder GRDP growth. (Lapian et al., 2023). Statistical analysis of China's regional population and GDP shows that population distribution impacts GRDP distribution, and regions with larger populations tend to have higher economic outputs (Huo et al., 2016). In South Asia, demographic factors such as life expectancy and birth rate have a long-term positive impact on economic growth (Munir & Shahid, 2021).

3. Materials and Methods

This research belongs to the quantitative research group. This research uses secondary data obtained from the Indonesian Central Bureau of Statistics (BPS) and the BPS publications of each province, which is the object of this research. The type of data used is panel data consisting of cross-section data from 6 provinces in Indonesia (Aceh, North Sumatra, South Sumatra, Riau, East Java, East Kalimantan, and Papua) and time series in annual form for the period 2010-2022. These seven

provinces were selected because they are Indonesia's largest oil and gas-producing provinces.

This study applies the panel data regression method for the data analysis process. The panel model equation used in this study is as follows.

$$\text{GRDP}_{it} = \beta_1 \text{LogEXM}_{it} + \beta_2 \text{LogINF}_{it} + \dots + \beta_3 \text{LogTP}_{it} + e_{it} \quad (1)$$

Where GRDP represents gross regional domestic product; EXM represents oil and gas exports; INF represents inflation; TP is population; $\beta_1 - \beta_3$ are the coefficients of each independent variable; α represents a constant; e is an error term; i is the i -th province; and t is the t -year.

To estimate a model using panel data, several approaches can be used, including the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Furthermore, several tests must be carried out to determine the best panel regression model to use when analyzing the research results, including the Chow, Hausman, and Lagrange Multiplier tests. The normality and multicollinearity tests must also fulfill the classical assumption test.

4. Results

4.1. Descriptive Statistics Analysis

Descriptive statistics are presented in Table 1 below, providing an overview of the data on GRDP, oil and gas exports, inflation, and population in the seven largest oil and gas-producing provinces in Indonesia from 2010 to 2022. These provinces include Aceh, East Java, East Kalimantan, Papua, Riau, South Sumatra, and North Sumatra.

Table 1. Result of Descriptive Statistics Analysis

Statistics	GRDP	EXM	INF	TP
Mean	440.68	1785.73	4.32	11.37
Median	343.46	502.40	3.75	6.39
Maximum	1.757.87	18.655.70	10.17	41.15
Minimum	101.55	0.00	0.22	2.83
Std. Dev.	431.47	3380.33	2.46	11.93
Obs	91	91	91	91

Note: GRDP: Gross regional domestic product (trillion IDR); EXM: Oil and gas exports (million IDR); INF: Inflation (percentage) and TP: Total population (million)

In general, descriptive statistics summarize that the number of observations of each variable in this study is 91, resulting from multiplying seven provinces by the total period, which is 13 years. Information related to GRDP data in oil and gas producing provinces during 2010-2022 through descriptive statistics is that the average GRDP is Rp440.68 trillion, the highest GRDP is Rp1,757 trillion, the least GRDP is Rp101.55 trillion. GRDP data is evenly distributed, as seen from the average value greater than the standard deviation, namely $440.68 > 431.47$. The highest GRDP was owned by East Java province in 2022, and the lowest GRDP was owned by Aceh province in 2010.

Oil and gas exports in Indonesia's seven largest oil and gas producing provinces from 2010 to 2022 averaged USD 1785.73 million, with the largest oil and gas exports amounting to USD 18,655.70 million and the lowest oil and gas exports of USD 0. The standard deviation of oil and gas exports is 3380.33, greater than the average value of 1785.73. This means that the standard deviation is greater than the average of oil and gas exports, implying that a large deviation of data or data is not evenly distributed in oil and gas exports in the seven largest oil and gas producing provinces.

The average inflation per seven provinces from 2010 to 2022 was 4.32 percent. The highest inflation in that period was 10.17 per cent in North Sumatra Province in 2013, and the lowest in 2012 in Aceh Province, which amounted to 0.22 percent. The standard deviation of 2.46, which is smaller than the average of 4.32, shows that the distribution of inflation data in this study is evenly distributed. The increase in fuel prices mainly triggered the high inflation in 2013 in North Sumatra.

The average population of the seven largest oil and gas producing provinces is 11.37 million. The largest population is in East Java in 2022, which is 41.15 million people, while the province with the lowest population is Papua in 2010, which is 2.83 million people. The standard deviation of 11.93, greater than the average, indicates that the population data has a large deviation.

4.2. Inferential Statistics

4.2.1. Determining the Best Model

To analyze the data using the panel regression method, tests must be conducted to determine the best model among the three-panel data models. The three tests for determining the best model are the Chow Test, Hausman Test, and LM Test, where the results seen are the cross-section probabilities of each test. The results of determining the best model for the study are shown in Table 2.

Table 2. Result of determining the best model

Testing	Prob.	Decision
Chow Test	0,0000	FEM
Hausman Test	0,0013	FEM
Lagrange Multiplier Test	0,0000	REM

Table 2 shows that the Chow test was conducted to select the best model between the common and fixed effect models. The Chow test in this study shows a probability of 0.0000, which is smaller than the 5% significance level, so it is concluded through these results that the Chow test is significant. The Chow test results that show significance make the fixed effect model chosen. Furthermore, the Hausman test must be carried out to determine the best estimation model between the fixed and random effect models. The Hausman test results show a probability of 0.0013,

which is smaller than the 5% significance level (0.0013 < 0.05).

Therefore, the significance of the Hausman test determines that the fixed effect model is chosen. The Chow test and Hausman test results have shown that in this study, the best panel regression model that can be selected and become the basis for analyzing the study results, as well as a reference for the research conclusions, is the fixed effect model.

4.2.2. Selected Panel Data Regression Model

The test results of determining the best model show that a fixed effect model is used to explain the effect of oil and gas exports, inflation, and population on GRDP in Indonesia. The estimation results with the fixed effect model are specifically shown in Table 3. Table 3 provides information on the relationship between independent and dependent variables, standard errors, t-statistics, and probabilities that can be utilized in the analysis process.

Table 3. Result of Fixed Effect Model

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-27.439	12.147	-2.2588	0,0269
LEXM	0.1601	0.0425	3.7651	0,0003
INF	-0.0291	0.0163	-1.7769	0,0798
LTP	3.6498	0.7497	4.8679	0,0000
R-Squared	0.8878	F-stat.	63.312	
Adjusted R-Squared	0.8737	Prob. F-stat.	0.0000	

Table 3 shows the estimation results that oil and gas exports significantly positively affect GRDP in Indonesia's largest oil and gas-producing provinces. This is indicated by the probability of oil and gas exports being smaller than the 1% confidence level, 0.0003 < 0.01, and the regression coefficient of oil and gas exports, 0.1601. These results suggest that an increase in oil and gas exports by 1 percent will increase GRDP by 0.16 percent.

Furthermore, inflation has a significant negative effect on GRDP. This result can be seen from the probability value of inflation, which is 0.0798 significant at the 10% level, and the negative relationship can be seen from the regression coefficient of inflation, which is -0.0291. This result implies that a 1 percent increase in inflation will decrease GRDP by 0.02, and vice versa.

This study also found that the effect of population on GRDP is positive and significantly influenced. This statement is supported by the results of estimating the population on GRDP, which has a probability of 0.0000 and a regression coefficient of 3.6498. This result has shown that an increase in population by 1 percent will increase GRDP by 3.64 percent and vice versa.

4.2.3. Classical Assumptions

The classic assumption test in this study was carried out by testing normality and multicollinearity tests. This study uses panel data, so not all classic assumption tests must be tested. The normality test was conducted to test whether the residual data used in this study were normally distributed or not. The normality test results using the Jarque-Bera method show that the residual data used in this study are normally distributed. This is indicated by the Jarque-Bera probability value of 0.2767, greater than the 5% confidence level. Therefore, this study has normally distributed residual data and does not experience normality problems.

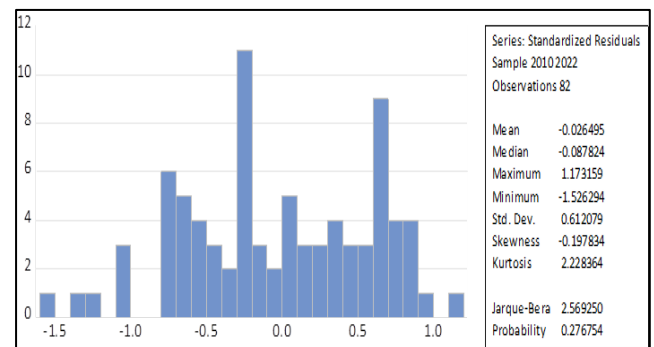


Figure 1. Result of Normality Test

The multicollinearity test was conducted to assess whether there is a strong relationship among the independent variables used in the study. Table 4 shows the correlation matrix between the independent variables of this study, namely, oil and gas exports, inflation, and population. The results of testing the multicollinearity of the data show that among the independent variables in this study, there is no multicollinearity problem. This is indicated by the correlation coefficient value, which is less than 0.90. Thus, it can be interpreted that there is no multicollinearity problem in this study.

Table 4. Multicollinearity Test Results

	LEXM	INF	LTP
LEXM	1	0.0315	0.0692
INF	0.0315	1	-0.0520
LTP	0.0692	-0.0520	1

5. Discussion

This study found several main findings. First, oil and gas exports significantly positively affect GRDP in Indonesia's seven largest oil and gas-producing provinces. Oil and gas exports generate foreign exchange or foreign currency revenues that enter the country. This revenue directly increases the net export component in the calculation of GRDP. Receipts from oil and gas exports, especially if conducted by state-owned companies or under production-sharing arrangements, directly increase the state treasury, which can be used

for other economic purposes. These revenues also support major investments in the oil and gas sector, such as infrastructure development and employment, which contribute to economic growth. In addition, increased revenues from oil and gas exports improve people's purchasing power and boost domestic consumption, a major component of GRDP.

Furthermore, oil and gas exports have an economic multiplier effect by encouraging the growth of supporting industries and increasing production capacity through investment in technology and downstream sectors. Revenues from oil and gas exports are also used to maintain macroeconomic stability, such as exchange rate stabilization and increasing foreign exchange reserves. In addition, these revenues fund economic diversification and the development of infrastructure and public services, all of which strengthen the foundation of the GRDP and improve overall economic productivity.

The previous studies that found that oil and gas exports have a positive effect on GRDP are Khayati (2019), Karamelikli et al. (2017), Erdoğan et al. (2020), and Olayungbo (2019). Khayati (2019) and Karamelikli et al. (2017) found that oil exports affect GDP in Bahrain and OPEC countries in a significant positive manner. Erdoğan et al. (2020) proved that oil exports positively impact the economy if supported by a sufficiently developed financial system. Olayungbo (2019) shows that oil export revenues contribute positively and significantly to Nigeria's economic growth.

Other findings show that inflation significantly negatively affects the GRDP of Indonesia's seven largest oil and gas-producing provinces. Inflation leads to a decrease in people's purchasing power due to rising prices of goods and services, which reduces domestic consumption as the main component of GRDP. In addition, economic uncertainty due to inflation makes businesses and investors reluctant to invest, which can hamper the growth of productive sectors. Inflation also increases production costs through rising raw material and energy prices, which reduces corporate profit margins and hinders economic expansion.

In addition, inflation creates market distortions, where prices no longer reflect real value, leading to inefficient allocation of resources. Tight monetary policies to control inflation, such as interest rate hikes, can also depress investment and consumption. The currency devaluation that often accompanies high inflation increases the cost of imports and the burden of foreign debt, which worsens economic conditions. This instability, coupled with the erosion of the value of savings and declining consumer and business confidence, slows GRDP growth and destabilizes the economy.

The results of this study, which found that inflation can reduce GRDP, are supported by research that has been done before, such as Aboudi & Khanchaoui (2021), Adaramola & Dada (2020), Aydin (2017), and lyke & Ho (2019). Aboudi & Khanchaoui (2021) found that inflation

and inflation instability have a negative effect both in the short and long run on economic growth. Adaramola & Dada (2020) and lyke & Ho (2019) show that in Nigeria and Ghana, inflation and inflation instability have a negative effect on economic growth. This shows that in Nigeria and Ghana, high inflation has a negative impact on economic growth. Aydin (2017) proves that inflation below the 12.88 percent threshold can positively impact the economy, but if inflation occurs above this threshold, then inflation will harm the economy.

The estimation results show that the population affects GRDP positively and significantly. A large population can increase GRDP through increased domestic consumption and labour. A large population creates greater demand for goods and services, encouraging firms to increase production and efficiency. In addition, a large labour force supports various economic sectors and creates innovative economic dynamics. Furthermore, a large population supports the growth of SMEs and economic diversification, which contributes to the strengthening of GRDP. The economic multiplier effect of household spending and the growth of service sectors, such as education and health, also strengthen the economy. With the right policies, a large population can be a key driver of economic growth and an increase in GRDP.

The number of residents who have a significant positive effect on GRDP is in line with previous research, such as research by Azam et al. (2020), Bucci et al. (2021), Busari et al. (2022), and Byaro et al. (2023). Azam et al. (2020) and Busari et al. (2022) proved that population significantly impacts economic growth in India and Indonesia. Byaro et al. (2023) obtained research results showing that rapid population growth in Sub-Saharan Africa positively impacts aggregate domestic investment. Meanwhile, (Bucci et al., 2021) showed that population growth has a small positive impact on economic growth.

6. Conclusions

This study investigates the impact of oil and gas exports, inflation, and population on Indonesia's Gross Regional Domestic Product (GRDP), specifically focusing on the seven provinces that are the largest oil and gas producers. The analysis uses panel data from Aceh, East Java, East Kalimantan, Papua, Riau, South Sumatra, and North Sumatra from 2010 to 2022. The findings from the panel data regression reveal three key results: first, oil and gas exports have a significant positive effect on GRDP, suggesting that an increase in exports can enhance regional economic growth; second, inflation has a significant negative effect on GRDP, as high inflation diminishes purchasing power, leading to reduced consumption; and third, population size has a significant positive effect on GRDP, indicating that a well-utilized population can drive economic growth.

Thus, several recommendations are made. To further boost GRDP through oil and gas exports, the government could offer fiscal incentives such as tax reductions or import duty exemptions to attract domestic and foreign investments in exploration and production. Additionally, advancing production technologies would help preserve oil and gas resources. Prudent monetary policy, including interest rate management and government initiatives, aims to strengthen the production sector and balance supply and demand, essential to control inflation. Finally, to maximize the potential benefits of a large population, investments in human capital are crucial, focusing on improving education, healthcare, and overall living standards.

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