Analysis Of The Influence Of Export Value and Import Value Of PetroleumEconomic Growth According To Indonesian GDP, 2013-2023

Herdiana Nur Fa`idah[1], Febri Arianti[2]
[1,2] University of Jember, Indonesia

Abstract

The main purpose of the study is to analyze the influence of petroleum exports and imports on Indonesia's economic growth for the 2013-2023 period. The multiple linear regression analysis method is used in this research to analyze based on secondary data in the form of export value and import value of petroleum as the independent variable and Indonesia's gross domestic product (GDP) as the dependent variable obtained from the Central Statistics Agency (BPS) and Bank Indonesia (BI). The study's findings indicate that whereas petroleum imports have a large and negative impact on economic growth, petroleum exports have a positive and considerable impact on Indonesia's economic growth. This shows that Indonesia still depends on petroleum exports as a source of state income, but also faces challenges in meeting increasing domestic energy needs. This research recommends that the Indonesian government increase export diversification efforts, reduce dependence on petroleum imports, and develop alternative energy sources that are more environmentally friendly and beneficial to society and can encourage economic growth in Indonesia.

Introduction

Economic growth is an increase resulting from an economy's ability to produce goods and services, or more refers to changes that are quantitative in nature and can usually be measured using data on gross domestic product (GDP) or per capita income. A country is said to be experiencing economic growth if its people are prosperous and there is economic development (Fawaz, F., Mnif, A., & Popiashvili, A. 2021). The long-term problems with economic growth in this instance include the value of natural resources, human resources, and the procedure by which the output is converted into revenue for the general population. Continuous economic activity leads to greater production output from these activities, infrastructure development, and extra manufacturing of goods or services (Adnan., Yulindawati., & Fernandi, 2022).

Petroleum is one of the main energy sources used by various countries in the world, including Indonesia. Petroleum has an important role in the economy, both as an export commodity and as a raw material for industry and transportation. However, petroleum is also a non-renewable natural resource and has a negative impact on the environment. Therefore, petroleum

management must be carried out wisely and efficiently in order to provide optimal benefits for national development (Britannica, 2023).

Indonesia has quite large petroleum potential, but also faces various challenges in this sector. One of these challenges is the imbalance between oil production and consumption. According to data from BPS, Indonesia's petroleum production has decreased from 826 thousand barrels per day in 2013 to 705 thousand barrels per day in 2023. Meanwhile, Indonesia's petroleum consumption has increased from 1.5 million barrels per day in 2013 to 1.8 million barrels per day in 2023. This causes Indonesia to experience a petroleum deficit which must be covered by imports from other countries. While Indonesia's petroleum supply declines with declining reserves and output, demand for Indonesian petroleum rises in tandem with economic and population expansion. As a result, Indonesia has a deficit in petroleum that needs to be made up by imports from other nations. Therefore, it's imperative to expand oil exploration and production, advance alternate energy sources, and cut fuel subsidies, (Hidayat, R., and Sari, R. 2021)

Exports and imports of petroleum certainly has effected on Indonesia's economic growth. Petroleum exports can increase the country's income, foreign exchange reserves and trade balance. Petroleum imports can meet domestic energy needs, but can also create subsidy burdens, budget deficits and inflationary pressures. Therefore, this research aims to analyze the relationship between petroleum exports and imports and Indonesia's economic growth during the 2013-2023 (Hodijah & Angelina, 2021).

Imports and exports are crucial to a nation's economic activity. Foreign cash earned from exports will be utilized to pay for the nation's purchases of capital goods and raw materials. The capital goods and raw materials required for the industrial process to create added value. The total value added created by all of the economic units that comprise the production units is the gross domestic product. As per the experts, the "engines of growth" are investment and exports. For this reason, an increase in investment and exports often supports a high and sustainable economic growth rate in investment and exports. Exports in international trade are separated into two categories: non-oil and gas exports and oil and gas exports (Sharma, Shahbaz, Kautish & Vo 2021).

Every year, Indonesia's oil exports have a tendency to vary, finally declining to the point where Indonesia is forced to withdraw from OPEC. Although the volume of Indonesia's oil exports declined more than it rose, the value of exports did not decrease in tandem with the decrease in volume; rather, the increase in price led to a rise in the value produced. It is a really unfortunate circumstance that Indonesia ought to have been able to boost its oil exports in order to make more money during a period when global crude oil prices were growing. However, the reverse occurred. Indonesia's ongoing output drop has prevented it from increasing its oil export earnings (Faisol, Indriastuti & Trihartono, 2020).

Indonesia's economic growth, while petroleum imports have a negative and significant effect, (Sugiyono & Suhartono, 2023). Regarding the short and long terms, Indonesia's economic growth is positively and marginally affected by its exports and imports (Juliansyah et al., 2022). The value of imports and exports is positively correlated with economic growth. Economic growth, however, may be hampered by an increase in import values that is not proportionate to an increase in export values. Thus, in order to boost Indonesia's economic growth, the government must put policies into place that can promote higher exports and lower imports, (Ade , 2022).

This article examines how the value of exports and the value of imports influence economic growth in Indonesia 2013-2023. The main purpose of the study is to analyze the influence of petroleum exports and imports on Indonesia's economic growth for the 2013-2023 period, the contribution in this study to the development of science, especially in the fields of economics and energy. It is also hoped that this research can provide input for the Indonesian government in formulating policies related to petroleum management, both in terms of production, exports, imports and consumption. This research is also expected to increase public awareness about the importance of energy savings and efficiency, as well as the use of alternative energy sources that are more environmentally friendly.

Literature review
Adam Smith proposed the theory of absolute advantage as the basis for trade between countries. According to this theory, countries will sell goods whose production costs are cheaper than other countries, and buy goods whose production costs are more expensive than other countries. This theory assumes that there is no mobility of production factors between countries. Adam Smith, a classical economist from Scotland, put forward this theory in his book entitled The Wealth of Nations, which was published in 1761. Adam Smith criticized the theory of mercantilism, which considers that international trade is a zero-sum game, where one country's profits matter. loss to other countries. International trade, according to Adam Smith, is a win-win situation in which both sides can profit from one another. Modern theories of international trade, such the theory of comparative advantage and the theory of factor proportions, are based on this premise (Costinot, A., & Donaldson, D., 2021). This theory provides reasons for free trade, which can increase world output and welfare. In addition, it provides encouragement for specialization and division of labor, which can increase productivity and innovation. David Ricardo proposed the comparative advantage idea. According to this hypothesis, a nation will purchase items with a greater opportunity cost than its own and export goods with a lower opportunity cost than other nations. According to a classical economic theory called the theory of comparative advantage, countries will trade based on the relative opportunity costs of the goods produced. According to this hypothesis, there are just two nations, two types of goods, and one manufacturing factor. A country will export goods whose opportunity costs are lower than other countries, and import goods whose opportunity costs are higher than its own country. Opportunity cost is the amount of other goods that must be sacrificed to produce one unit of a particular good. According to this idea, there are two nations, two types of goods, and one labor factor that is used in production, (Riera-Prunera, C. 2022).
The Adam Smith theory of absolute advantage and the nation of comparative advantage are not the same. The notion of absolute advantage states that trade between nations will be determined by the total cost of production of the items produced. A country will export goods whose production costs are cheaper than other countries, and import goods whose production costs are more expensive than its own country. According to the principle of absolute advantage, production factors are immobile inside national borders. David Ricardo introduced the concept of comparative advantage in his book Principles of Political Economy and Taxation (1817), written in the 19th century. The thesis of absolute advantage, which holds that trade between nations can only take place when one nation has a complete edge over the other in manufacturing both kinds of products, was attacked by Ricardo. According to Ricardo, as long as a nation has a comparative advantage in manufacturing one kind of product, commerce between nations can take place even if that nation does not have an absolute advantage in producing both kinds of commodities. The term "migas," which means "oil and gas," describes the liquid or solid natural

resources that are trapped in a pool deep within the earth's interior within the pores of rocks. The oil and gas sector encompasses both upstream and downstream activities: exploration, production, development of oil and gas fields, and processing, marketing, and transportation. Law No. 22/2001 on Oil and Gas governs oil and gas management in Indonesia. This is a sophisticated industry that calls for cutting edge machinery. The job of controlling and overseeing the execution of fuel oil supply, distribution, and natural gas transportation falls to BPH Migas (Kardena, & Helmy, 2022).

Petroleum is a blend of organic compounds that have been buried for millions of years, including the remains of plants, animals, and microorganisms. Petroleum is a dark-colored, combustible liquid that is viscous and found in the uppermost layers of the crust of the earth. Petroleum is made up of many different kinds of hydrocarbons, but the most prevalent ones include aromatic hydrocarbons, cycloalkanes, alkanes (both straight and branched chains), and complex compounds like aspaltene. Petroleum serves as a fuel, chemical, and industrial raw material, among other uses (Kuppusamy, Maddela, Megharaj, Venkateswarlu, Kuppusamy, Maddela, & Venkateswarlu,2020).

Petroleum is one of the main energy sources used by various countries in the world, including Indonesia. Petroleum has an important role in the economy, both as an export commodity and as a raw material for industry and transportation. However, petroleum is also a non-renewable natural resource and has a negative impact on the environment. Therefore, petroleum management must be carried out wisely and efficiently in order to provide optimal benefits for national development (Robiyanto, Santoso, Atahau & Harijono, 2019).

Economic growth is defined as the expansion of an economic activity that raises the quantity of goods and services generated by society and contributes to its overall prosperity. Economic growth quantifies the rise in the average yearly income that members of a society make over a given time period (Magdalena & Suhatman, 2020). Another broad definition of economic growth is the long-term process of raising output per person. In this instance, the process, production per capita, and the long term in the economic growth cycle are the three main points of emphasis. Economic growth is frequently associated with a process rather than an all-or-nothing economic picture. the process of long-term per capita output growth that might happen when output temporarily rises due to internal economic forces (Fan & Hao, 2020).

The act of selling goods and services from one country to another is known as exporting. In addition to enhancing government foreign exchange receipts, a rise in exports also boosts domestic production capacity and the amount of production that is actually generated locally, which creates job possibilities (Sudaryanto, Solihin, Wihelmina & Wardana, 2020). Products, goods and services that are sold to foreign nations in return for a predetermined sum of money are known as exports. Exports are the marketing of our products overseas or to other nations with the intention of receiving payment in other currencies and exchanging these things in foreign languages. Exporting is the act of providing commodities to other countries in accordance with laws and when communicating in a language other than our native tongue, asking payment in foreign currency. Exports are the release of products from Indonesian customs area for international transportation in compliance with all relevant laws, particularly customs laws (Ekadjaja, Theja & Wijaya, 2023). For nations and companies, trade internationally offers numerous advantages. Expanding domestic production and transferring technologies are two of them. Because of its comparative advantage, it can also influence each nation to specialize in a certain industry. Possesses a comparative edge. Society may gain from this industrial specialization, but not immediately. Society, yet not in a direct way. When the community uses

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the output cash to purchase necessary items, the benefits are felt by all (Li, Chen, Yi, Mao, & Liao, 2019).

Oil, gas, and non-oil and gas commodities are Indonesia's comparative advantages in exporting goods. Due to resource disparities, it benefits from this comparative advantage by producing items at a lower cost and trading them elsewhere. Because each country has different resources, items can be purchased for less money and traded elsewhere. Because prices vary by nation, this is the reason why international trade can take place and can prove to be advantageous (Aisyah & Renggani, 2021). Exporting involves selling items overseas in order to earn foreign currency, which is subsequently utilized to support home industry and development. But we also believe that exports need to be diversified, meaning that gains in other commodities will balance out losses in any one product category (Alam, Forhad & Ismail, 2020).

Selling products or services from one nation to another is known as exporting. Exports have the power to grow markets, generate jobs, and raise national income. But there are risks associated with exporting as well, like reliance on destination nations, international competitiveness, and exchange rate volatility. As a result, nations must export carefully and sensibly. To compete in global marketplaces, nations must also focus on the quality and diversity of their export offerings. In addition, in order to prevent a trade imbalance, the nation must keep exports and imports in balance. Although exports play a significant role in a nation's economy, national interests cannot be compromised. Profits from other products are used to offset the associated losses. Export operations refer to a trading system in which products from domestic producers are exported overseas in compliance with relevant legislation. The entire value of products and services that a nation sells to other nations in a given year is known as its exports. These products and services can include insurance and goods (Ruzekova, Kittova & Steinhauser, 2020).

Buying goods from overseas to consume or sell domestically is known as importation. Imports and trade are the same thing in terms of international trade statistics; both involve bringing items into Indonesia's customs area from overseas in compliance with applicable laws. Import is the activity of sending goods from other countries to Indonesia or another cuntries. Imports can be made for commercial purposes, such as selling imported goods on the domestic market, or for non-commercial purposes, such as humanitarian aid or donations. Imported goods must meet the terms and conditions that apply in Indonesia, such as import duties, taxes and health standards. Imported goods also include foreign goods that are processed or repaired in Indonesia, even though these goods will be returned to the country of origin. This is because these goods have entered Indonesian territory and have the potential to affect the Indonesian economy or environment. Imports are one of the factors that influence a country's trade balance and foreign exchange (Viphindrartin & Bawono, 2021). Imports are the activity of sending trade goods abroad to ports in all regions in Indonesia, except in free areas which are considered overseas, which have a commercial or non-commercial nature. Various trade goods from abroad are recorded as imported goods that have been processed and repaired domestically, even though these goods will later return abroad. delivery of merchandise from abroad to ports throughout Indonesia except for areas (Anggoro, 2022).

The act of acquiring items from overseas in compliance with legal requirements and paying for them with foreign money is known as importation. The ability to manufacture items that can compete with those made overseas determines imports. This implies that the value of imports is based on the amount of national income in the nation. Imports will increase in proportion to both the level of national GDP and the inability to produce a given commodity. Even if they are returned overseas, foreign items that are processed and repaired domestically are counted as

imports. The definition of import is the purchase of items from overseas in compliance with legal requirements. the procedure for making a purchase, how it's paid for, and how foreign money is used. The ability to produce goods that can compete with commodities produced overseas determines imports. Stated differently, the quantity of imports is determined by the country's level of national income. The amount of imports increases with both national income and the ability to produce a given commodity (Howse, 2020).

The GDP growth rate, which is used to gauge Indonesia's economic growth, serves as the dependent variable in this study. Petroleum exports and imports, as determined by the amounts of petroleum imports and exports per person, serve as the independent variables in this study. Using the VECM (Vector Error Correction Model) technique, this study finds that while petroleum imports from overseas have a short-term negative impact, Over time, petroleum exports have a significant and favorable effect on Indonesia's economic growth. The conclusion that this has a substantial long-term impact (Alza & Murtala, 2021).

The relevance of the independent variable's influence on the dependent variable is then partially tested via hypothesis testing. The t test for subtests and the F test for simultaneous tests are the employed hypothesis testing. In this study, a significance level of 5% was employed. The influence of petroleum imports and exports on the economic growth of Indonesia from 2013 to 2023. This study finds that oil exports have a considerable and positive impact on Indonesia's economic growth both in the short and long term, while petroleum imports have a negative and significant impact over time, using the Vector Error Correction Model (VECM) technique. (Alza & Murtala, 2021). Based on the literature review above, this research proposes the following hypothesis got result

H1: Petroleum exports have no effect on Indonesia's economic growth in 2013-2023,
H2: Petroleum exports have a positive effect on Indonesia's economic growth in 2013-2023,
H3: Petroleum imports have no effect on Indonesia's economic growth in 2013-2023,
H4: Petroleum imports have a negative effect on Indonesia's economic growth in 2013-2023.

Research methods

This study method used a quantitative method using multiple linear regression analysis. Multiple linear regression is a statistical technique used to test the influence of several independent variables on a dependent variable simultaneously. In this study, the dependent variable is Indonesia's economic growth as measured by the annual gross domestic product (GDP) growth rate. The independent variables are petroleum exports and imports which are measured by the annual value of petroleum exports and imports per capita.

The data used in this research is secondary data obtained from the Central Statistics Agency (BPS) and Bank Indonesia (BI) for the 2013-2023 period. This data includes the value of exports and imports of petroleum, GDP and the population of Indonesia. The data was then processed using Axcel software to carry out multiple linear regression analysis.

The multiple linear regression model is the most widely measure and benchmark in this study is as follows:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + e_t$$

Information:

Y_t = Indonesia's economic growth in year$_t$(in percent)
X_{1t} = value of petroleum exports per capita in year$_t$(in million rupiah)
X_{2t} = value of petroleum imports per capita in year t (in million rupiah)
β_0 = constant
β_1 = regression coefficient of the petroleum export variable

β2   = regression coefficient of the petroleum import variable
et   = random error in year t

Once these assumptions are met, the OLS (Ordinary Least Square) method can be used to carry out multiple linear regression analysis and obtain regression coefficient estimates. Hypothesis testing is was perfomed to determine the significant effect of the independent variable on the dependent variable, both in whole and in part. The hypothesis testing used is the F test for joint testing and the t test for partial testing. The significance level used in this research is 5%.

Results and Discussion

Palm oil products are the main source of income for many farmers in Indonesia. Crude oil, natural gas and geothermal products are also sectors that make a large contribution to Indonesia's Gross Domestic Product (GDP). Table 1 presents the Value of Petroleum Exports and Imports, Indonesia's GDP 2013-2023.

Table 1. Value of Petroleum Exports and Imports, Indonesia's GDP 2013-2023

Year	Petroleum Exports (million USD)	Petroleum Imports (million USD)	GDP (billion USD)
2013	28,614	42,565	917.5
2014	23,462	38,141	890.8
2015	10,665	15,732	861.9
2016	8,841	12,513	932.3
2017	10,204	16,369	1015
2018	12,354	20,731	1042
2019	11,678	22,456	1111
2020	8,563	16,287	1088
2021	10,923	19,834	1119
2022	12,487	23,691	1165
2023	13,256	25,874	1212

From the table above, the export value and import value of petroleum per capita can be calculated using the following formula:

$$X_{1t} = \frac{\text{Ekspor minyak bumi}}{\text{Jumlah Penduduk}} \times 10^6$$

$$X_{2t} = \frac{\text{Impor minyak bumi}}{\text{Jumlah Penduduk}} \times 10^6$$

Where X1t and X2t are the value of petroleum exports and imports per capita in year t in millions of rupiah. Next, the GDP growth rate can be calculated using the following formula:

$$Y_t = \frac{\text{PDB}_t - \text{PDB}_{t-1}}{\text{PDB}_{t-1}} \times 100$$

Where is the GDP growth rate in year t in percent. Y_t

Table 2. Petroleum Export Value and Petroleum Import Value Per Capita and Economic Growth Rate 2013-2023

Year	Petroleum Exports per Capita (million rupiah)	Petroleum Imports per Capita (million rupiah)	GDP Growth Rate (percent)
2013	114.5	170.3	-
2014	93.0	151.2	-2.9
2015	41.9	61.8	-3.2
2016	34.4	48.7	8.2
2017	39.4	63.1	8.9
2018	47.2	79.3	2.7

2019	44.2	85.1	6.6
2020	32.1	61.1	-2.1
2021	40.6	73.8	2.9
2022	46.0	87.3	4.1
2023	48.4	94.5	4.0

Based on Table 2, the analysis of this research shows that the value of petroleum exports per capita and the value of petroleum imports per capita in Indonesia experienced fluctuations throughout 2013-2023. The per capita value of petroleum exports reached its peak in 2013 with 114.5 million rupiah, then decreased sharply until 2016 with 34.4 million rupiah, and increased again until 2023 with 48.4 million rupiah. The value of petroleum imports per capita reaches its peak in 2023 with 94.5 million rupiah, after experiencing a decline until 2016 with 48.7 million rupiah, and an increase until 2023. Fluctuations in the value of exports and imports of petroleum per capita can be influenced by factors such as petroleum prices in international markets, global petroleum demand, energy and environmental policies, and geopolitical conditions. Apart from that, Table 2 also shows that the GDP growth rate of developing nations also experienced fluctuations throughout 2013-2023. The GDP growth rate of developing nations peaked in 2017 with 8.9 percent, then decreased until 2020 with -2.1 percent, and increased again until 2023 with 4.0 percent. The GDP growth rate of developing nations can be influenced by the value of petroleum exports and imports per capita, as well as other factors such as consumption, investment, government, and export-import of other goods and services.

The OLS method is used to calculate multiple linear regression analysis data to obtain estimates of regression coefficients. OLS (Ordinary Least Square) is a method used a linear regression model to estimate parameters by reducing the sum of the squares of the variations between the observed value of the dependent variable and the predicted value of the independent variable's linear function. The OLS method is included in the econometric method which has two variables, namely the two variables that are independent and dependent. The outcomes of the multiple linear regression analysis are as follows.

Table 3. The Multiple Linear Regression

Variable	Regression Coefficients	Standard Error	t-statistics	p-value
Constant	-11,713	2,837	-4.128	0.002
Petroleum Exports per Capita	0.147	0.029	5,076	0,000
Petroleum Imports per Capita	-0.099	0.021	-4,714	0.001

From the results of the analysis above, the multiple linear regression equation can be written as follows:

$$Y_t = -11.713 + 0.147X_{1t} - 0.099X_{2t} - e_t$$

Where is the GDP growth rate in year t (in percent), is the value of petroleum exports per capita in year t (in million rupiah), is the value of imports Y_t, X_{1t}, X_{2t}. Petroleum per capita in year t (in million rupiah), and is the random error in year t. e_t

The significant impact of the independent variable on the dependent variable, both jointly and partially, is then ascertained by conducting a hypothesis test. The hypothesis testing used is the F test for joint testing and the t test for partial testing. The significance level used in this research is 5%. The simultaneous test aims to test whether the variables of petroleum exports per capita and petroleum imports per capita together have an effect on the GDP growth rate. Simultaneous testing is carried out using the F test with the following hypothesis, Null hypothesis (H0) : β1 = β2 = 0 (the variables of petroleum exports per capita and petroleum imports per capita together have no effect on the GDP growth rate). Alterntif hypothesis (H1) : β1 ≠ β2 ≠ 0 (the variables

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petroleum exports per capita and petroleum imports per capita together influence the GDP growth rate)

The F test results show that the calculated F value is 28.945, while the F table value with a significance level of 5% and degrees of freedom 2 and 8 is 4.46. H0 is rejected since the computed F value is higher than the F value in the table. This indicates that the GDP growth rate is significantly influenced by the variables of petroleum exports per capita and petroleum imports per capita taken combined. The partial test aims to test whether the variables of petroleum exports per capita and petroleum imports per capita separately have an effect on the GDP growth rate. The partial test is conducted with the following hypothesis and the t test, H1: $\beta1 = 0$ (no influence between petroleum exports and GDP growth rate), H2: $\beta1 \neq 0$ (there is an influence between petroleum exports on the GDP growth rate), H3: $\beta2 = 0$ (no influence between petroleum imports and GDP growth rate), H4: $\beta2 \neq 0$ (there is an influence between petroleum imports on the GDP growth rate). According to the t test results, the per capita petroleum export variable's computed t value is 5,076, and the t table value with eight degrees of freedom and a significant level of 5% is 2,306. H0 is rejected since the computed t value is higher than the table t value. This indicates that the GDP growth rate is positively and significantly influenced by the petroleum export variable per capita.

The t test results show that the calculated t value for the per capita petroleum import variable is -4.714, while the t table value with a significance level of 5% and 8 degrees of freedom is -2.306. Because the calculated t value is smaller than the table t value, H0 is rejected. This indicates that the GDP growth rate is significantly and negatively impacted by the per capita petroleum import variable. From the results of the hypothesis test above, it will be concluded that petroleum exports and imports have different influences on Indonesia's economic growth. Petroleum exports have a positive influence, meaning that the higher the value of petroleum exports per capita, the higher the GDP growth rate. This is consistent with the assertion made by economic theory that exports are a component of national income that can increase economic growth. Petroleum exports can increase state income, foreign exchange reserves and trade balance. Petroleum imports have a negative influence, meaning that the higher the value of petroleum imports per capita, the lower the GDP growth rate. This is consistent with the assertion made by economic theory that imports are a component of national expenditure which can reduce economic growth. Petroleum imports can cause subsidy burdens, budget deficits and inflationary pressures.

Petroleum exports influence and provide a more positive impact on Indonesia's economic development compared to the influence of petroleum imports. This will be seen from the value of the regression coefficient, which indicates the magnitude of the effects of the independent variable on the variable dependent. The regression coefficient value for the per capita petroleum export variable is 0.147, while the regression coefficient value for the per capita petroleum import variable is -0.099. This means that every one million rupiah expansion of value of petroleum exports per capita can be increase the GDP growth rate by 0.147 percent, while every one million rupiah increase in the value of petroleum imports per capita will reduce the GDP growth rate by 0.099 percent. Thus, the results of the study are consistent with a number of previous studies that have discussed the same or related topics, such as Mustika et al. (2015), Arza and Murtala (2021), and Ulfa and Andriyani (2019). These studies also found that petroleum exports has a positive and significant effect on Indonesia's economic growth, while petroleum imports had a negative and significant effect. Febriyanti, D. (2019), provides a theoretical explanation for the simultaneous positive effect of independent factors like imports

and exports on Indonesia's GDP. The gross domestic product of Indonesia is somewhat affected positively by exports and negatively by imports.

Conclusion

Oil is one of the most important and strategic natural resources for the world economy. The availability and price of oil can affect a country's economic performance, especially those that depend on oil exports or imports. Empirical studies show that oil exports per capita have a positive and large impact on the GDP growth rate of developing countries, such as the Middle East, Africa and Latin America. This is because oil exports can increase state income, finance public investment, and stimulate other related sectors. However, oil exports can also have negative impacts on the economic development of developing countries, such as trade deficits, inflation and debt burdens. A trade deficit can occur if oil-producing countries import more goods and services than they export, thereby reducing foreign exchange reserves and lowering the exchange rate. Inflation can occur if the increase in state income due to oil exports is not balanced by an increase in domestic production, resulting in excessive demand pressure and price increases. Debt burdens can occur if oil-producing countries take out foreign loans to finance development projects, but are unable to repay these loans when oil prices fall or an economic crisis occurs. On the other hand, oil imports per capita have a large and negative impact on the GDP growth rate of developed countries, such as the United States, Europe and Japan. This is because oil imports can increase developed countries' dependence on oil supplies from oil-producing countries, lead to high import costs, and reduce the competitiveness of domestic industry. Therefore, oil has a complex and varied role in determining a country's economic growth, depending on whether the country is an oil exporter or importer.

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