



**TECHNIUM**  
**SOCIAL SCIENCES JOURNAL**

**Vol. 38, 2022**

**A new decade  
for social changes**

[www.techniumscience.com](http://www.techniumscience.com)

ISSN 2668-7798



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# The Effect of Exchange Rate, Inflation, FDI, and Domestic Consumption on GDP Through Non-Oil and Gas Exports, Indonesia

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**Abstract.** This research aims to analyze the effect of the exchange rate (ER), inflation (Inf), FDI, and domestic consumption (DC) on GDP in Indonesia directly or indirectly through non-oil and gas export (Ngx) as a intervening variable using annual time-series data from 2000 until 2020 using path analysis techniques processed by the E-views application. The results of direct influence in this research show that the exchange rate, inflation, and domestic consumption have a significant effect while FDI do not has a significant effect on non-oil and gas exports. Then, the influence on GDP show that the exchange rate, domestic consumption, non-oil and gas export (Ngx) have a significant effect while Inflation (Inf), and FDI do not has a significant effect. The next result of indirect influence in this research show that, the inflation (Inf) and FDI have a significant effect while exchange rate and domestic consumption (DC) do not has a significant effect on GDP.

**Keywords.** Exchange rate, Inflation, FDI, Domestic Consumption, Non-oil and Gas Export

## 1. Introduction

The achievement of a country's development is reflected in the level of economic growth with a series of processes of changing conditions over a certain period, assessed based on an increase in national income (Syahputra, 2017). According to Velnampy (in Supiyadi & Anggita, 2020), economic growth can be influenced by various factors such as the money supply, price stability, exchange rates, unemployment rates, and increased export activities.

Inflation theory initiated by Keynes assumes that when Aggregate Demand (AD) exceeds Aggregate Supply (US) in the market, it will create an inflationary gap, which can only be overcome by issuing fiscal policy by reducing government consumption and increasing taxes so that it will reduce the volume of the money supply. In line with research (Hutagaol & Marhaeni, 2020; Kumaat, 2020) there is a negative and significant effect of the exchange rate and inflation on increasing non-oil and gas exports in the Provinces of Bali and North Sulawesi.

International trade is defined as the activity of trading goods, services, or capital by domestic residents, both individuals and legal entities with residents of other (foreign) countries (Doni & Izmuddin, 2018). As an upper-middle-income country, Indonesia seeks to establish a

trade balance surplus with a series of net export policies. Non-oil and gas export trade is the sale of several agricultural commodities, manufacturing, processing, and mining industries (BPS, 2020).

After the implementation of deregulation due to falling oil prices in the global market, non-oil and exports have increased. The highest total non-oil and exports occurred in 2011 and 2018 at US\$ 162 million, while the lowest exports occurred in 2015 at US\$ 131,792 million. In 2020 as a result of the mutation of the coronavirus disease (COVID-19) and lock down policies in various countries have an impact on international trade. There is a 1 percent decline in non-oil and gas or US\$ 896.3 million. The decline in export performance will cause a decline in GDP and inflation in line with research (Nuhu et al., 2020) that non-oil and gas exports have a positive effect on the economy in Nigeria.

Non-oil and gas export trading activities in Indonesia are related to the exchange rate, referring to the unit value of the domestic currency against foreign currencies (Todaro & Smith, 2015; Sukirno, 2016; Blachard & Johnson, 2017). In line with the findings (Emmanuel & Bidemi, 2020) regarding the exchange rate which harms effect on GDP. When the exchange rate appreciates (strengthens) then the domestic price is considered much more expensive causing an increase in inflation and a decrease in demand for domestic goods and GDP. Investors choose to invest when inflation is at a low and stable level because it can predict the expected rate of return (Andriani & Armereo, 2016). Research (Baene et al., 2018; Almarzoqi & Mahmah, 2020) that in real terms FDI harms effect GDP in Indonesia and Saudi Arabia. Data shows that an increase in domestic consumption in the long term will increase non-oil and gas exports. In contrast to research (Daulika et al., 2020) domestic consumption has a significant negative effect on Indonesia's export rubber prices.

There are various studies, namely on the negative and significant relationship between exchange rates and non-oil and gas exports (Yasri, 2016; Katper, 2017; Macpal, 2017; Bostan et al., 2018; Risma et al., 2019) in RCA and OLS analysis techniques with the help of SPSS where the depreciation of the exchange rate reduced the demand for domestic products, the trade balance, domestic productivity, increased volume of imports with the circulation of cheap goods which weakened the income of local producers and the country's economic growth in Bangladesh, Indonesia and Romania. (Md Reza et al., 2018) while FDI and portfolio investment are directly proportional to export performance in Bangladesh. (Fadol, 2020; Mohammed & Aliyu, 2020) The ECM and ARDL models in Saudi Arabia and Nigeria expect product diversification and switch from oil and gas exports to non-oil exports such as agricultural products, solid minerals, and manufacturing with a collaborative financing scheme between the private sector and the public.

The findings by Uysal and Mohamoud, (2018) that GDP growth and inflation are inversely proportional to exports while the labor force, industry, FDI, and exchange rates are significantly directly proportional to exports in East Africa, in line with research by Ismanto et al., (2019); Muchtolifah and Muljani (2020) using the OLS analysis technique in Indonesia. Meanwhile, research by Nuhu et al., (2020) shows that is a positive relationship and significance between open trade through non-oil and gas exports, labor force participation, capital and exchange rates on GDP, so diversification of non-oil and gas export products is needed in Nigeria. further research conducted by Ulfa and Andriyani (2019) the positive significance of the exchange rate and economic growth on exports of non-oil and gas commodities, while inflation does not affect commodity exports in Indonesia. Meanwhile, further research conducted by Musa (2020); Rangkuty et al., (2020) trade openness and exchange rates are significantly inversely proportional and FDI is directly proportional to GDP in both the short

and long term. It is hoped that the Nigerian central bank will maintain the volatility of foreign exchange demand so that the domestic exchange rate does not fall further, import controls on several goods also need to be considered.

## **2. Literature Review**

### **Economic Growth Theory**

Simon Kuznets (in Jhingan, 2016) describes economic growth as increasing the ability to produce goods and services for the needs of the population following technological, institutional, and ideological developments of a country. Adam Smith's theory (1976) explains that natural resource factors, political conditions, institutional structure, savings, and population growth will encourage market expansion. Trade through a competitive open market, leading to specialization and division of labor encourages increased productivity. Utilizing technological sophistication will streamline working time so that there is an increase in the number of products and distribution of income that leads to the development of a country (Jhingan, 2016).

### **GDP Theory**

Economic growth is categorized into two, namely, GNP is the value of goods and services using a series of production factors owned by citizens both at home and abroad in one year, while Gross Domestic Product (GDP) is the value of goods and services using a series of production factors belonging to domestic residents, both domestic residents and foreign nationals

Blanchard (2017) states that GDP growth is used to measure a country's ability to produce many outputs referring to the total value of output, value-added and total income produced by a country. GDP through the expenditure approach involves 4 sectors of the economy, namely domestic consumption, foreign direct investment (FDI), government spending, and non-oil and gas export activities (Rahardja & Manurung, 2017).

### **International Trade Theory**

International trade (Tambunan, 2001) is the sale of many goods and services across customs borders, including export and import activities that can bring in foreign exchange, and meet the financing needs of various domestic sectors. And it occurs when there is a demand and supply surplus for many goods and services between countries (Salvatore, 2013).

### **Theory of Comparative Advantage**

David Ricardo states that open trade will provide the advantage of increasing total output between the two countries through a series of exchanges, even though a country has an absolute advantage in producing commodities (Skousen, 2015).

### **The Heckscher-Ohlin Theory**

Eli Heckscher and Bertil Ohlin (Suprianto, 2017) states that each country has a different production factor capacity, causing price differences (opportunity costs) for one type of goods between countries. In producing a good, the state tends to increase the capacity of the number of factors of production to produce a large and cheap output. Countries that have more labor will use labor intensively, by taking advantage of the advantages of labor with less capital. Meanwhile, countries that have a lot of capital and machinery will use capital intensive to minimize production costs.

### **Export Theory**

Mankiw (2016) says that export is a process where goods are legally shipped to other countries as part of the commercialization process with the benefit of being able to expand the domestic market, increase the exchange rate, expand employment opportunities and income distribution (Sukirno, 2016: 15). Export is an activity of offering product to other countries to be traded by trade standards and payment terms based on an agreement between actors in each country (Sonia & Setiawan, 2016).

### **Exchange Rate Theory**

According to Todaro (2015), in Blanchard (2017) the exchange rate refers to the price or value of the domestic currency against foreign currencies, which is influenced by the forces of demand and supply. The Mundell-Fleming model (in Mankiw, 2016) shows the importance of interaction in the goods market and money market, assuming a constant price level depending on the exchange rate system in an open economy.

### **Inflation Theory**

Inflation is a gradual and continuous increase in many goods in general which is measured in price levels, namely by the Consumer Price Index and the GDP deflator (Blanchard, 2016). Quoted from (BI, 2020) several components that affect inflation in Indonesia are:

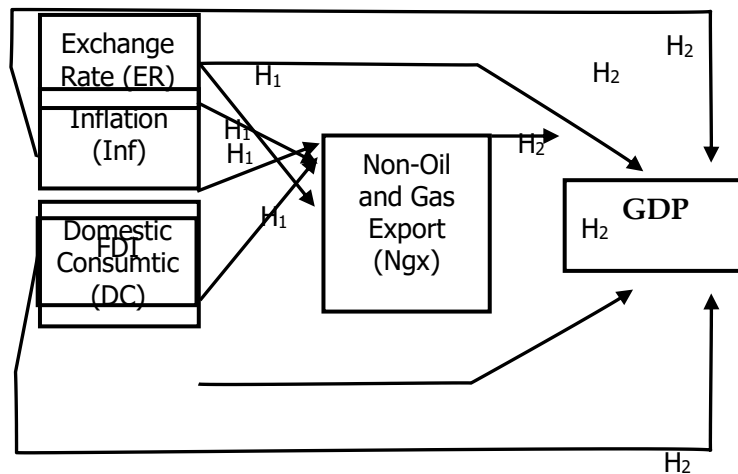
1. Core inflation is fixed inflation that is influenced by: demand-supply, the external environment (exchange rate, international commodity prices, trading partner inflation, and inflation expectations for traders and consumers.
2. Non-core inflation tends to have high volatility, consisting of the following components: volatile food (harvests, natural disturbances, and changes in domestic and international commodity market prices). Administered prices include government policies through the application of subsidized fuel prices, electricity tariffs, and transportation modes of transportation.

### **FDI theory**

According to Jhingan (2016), direct investment is a de facto or de jure investment with a series of supervision over the assets invested. Gerald M. Meier concludes that FDI in developing countries is quite stagnant with the burden of returns, making exports insignificant. However, FDI is an effort to maintain capital and increase economic growth through increasing the production process and expanding employment opportunities with several binding and conditional agreements by the investor country (Jhingan, 2016).

### **Domestic Consumption Theory**

Keynes' theory (in Rahardja and Manurung, 2017; Sukirno, 2016) that when disposable income increases, consumption also increases, known as the behavioral equation. When consumption increases, national income through total output will increase and affect exports and GDP.



**Figure 1. The research framework**

Based on the description of the theory discussed, the researcher formulates the hypothesis:

1. It is suspected that the exchange rate, inflation, FDI, and domestic consumption affect non-oil and gas exports in Indonesia.
2. It is assumed that the exchange rate, inflation, FDI, domestic consumption, and non-oil and gas exports affect GDP in Indonesia.
3. It is assumed that the exchange rate, inflation, FDI, and domestic consumption affect GDP through non-oil and gas exports.

### 3. Research Methods

In this study, secondary data that is quantitative, sourced from BPS and BI in the form of time series (a certain time series) is used. The literature review method is used with the helpline analysis technique of the E-views application version 10, to see the effect of exogenous variables on endogenous variables, both directly (direct effect) and indirectly (indirect effect) which are correlated between variables (Sarwono, 2012).

So that the regression analysis equation model is needed as follows:

#### Sub Structural I

$$\text{Ln Ngx} = \beta_0 + \beta_1 \text{LnER} + \beta_2 \text{LnInf} + \beta_3 \text{LnFDI} + \beta_4 \text{LnDC} + ei$$

#### Sub Structural II

$$\text{Ln GDP} = \beta_0 + \beta_1 \text{LnER} + \beta_2 \text{LnInf} + \beta_3 \text{LnFDI} + \beta_4 \text{LnDC} + \beta_5 \text{LnNgx} + ei$$

#### Sub structural III

$$\text{GDP} = \beta_0 + \beta_1 \text{ER} + \beta_2 \text{Ngx} + \beta_3 \text{ER} * \text{Ngx} + ei$$

$$\text{GDP} = \beta_0 + \beta_1 \text{Inf} + \beta_2 \text{Ngx} + \beta_3 \text{Inf} * \text{Ngx} + ei$$

$$\text{GDP} = \beta_0 + \beta_1 \text{FDI} + \beta_2 \text{Ngx} + \beta_3 \text{FDI} * \text{Ngx} + ei$$

$$\text{GDP} = \beta_0 + \beta_1 \text{DC} + \beta_2 \text{Ngx} + \beta_3 \text{DC} * \text{Ngx} + ei$$

Where:

GDP = Gross Domestic Product

Ngx = Non-oil and gas exports

ER = Exchange rate

Inf = Inflation

FDI = Foreign Direct Investment

DC = Domestic Consumption  
 $\beta$  = Regression Coefficient  
 $e_i$  = error terms

#### 4. Results and Discussion

##### 4.1. Result of Hypothesis Testing

**Table 1**

##### Sub Structural I, Partial t-test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.438.677	3.083.887	-4.665.142	0.0003
LNER	-1.103.728	0.483303	-2.283.720	0.0364
Inf	0.030484	0.013096	2.327.827	0.0334
LNFDI	0.206512	0.125626	1.643.860	0.1197
LNDC	2.721.072	0.331969	8.196.755	0.0000

Source: data processed with eviews

The sub-structural equation I from the table above is:

$$Y = -1,438 - 1,103 + 0,030 + 0,206 + 2,721 + 0,221$$

1. Exchange rate variable (ER) with a significance of 0.036 and t count -2.283. This shows the exchange rate (ER) has a negative and significant effect on non-oil and gas exports (Ngx) of 1.103.
2. The inflation variable (Inf) has a significance of 0.033 with a t-count of 2.327. Inflation (Inf) has a positive and significant effect on non-oil and gas exports (Ngx) of 0.030.
3. The significance value of FDI is 0.119, strengthened by a t-count of 1.643. FDI has no significant effect on non-oil and gas exports (Ngx).
4. The significance level of domestic consumption (DC) is 0.000 with a t-count of 8.196. Domestic consumption (DC) has a positive and significant effect on non-oil and gas exports (Ngx) of 2.721.

**Table 2**

##### Sub Structural I, Simultaneous f-test

<b>F-statistic</b>	7.846.344
<b>Prob(F-statistic)</b>	0.000000

Source: data processed with eviews

Table 2 shows a significance level of 0.000 while the f-count value is 7.846. So together the independent variables are significantly positive for non-oil and gas exports (Ngx).

**Table 3**

##### Sub Structural I, Coefficient of Determination (R<sup>2</sup>) Test

<b>Value of R Square</b>	0.951494
<b>Value of Adjusted R Squared</b>	0.939367

Source: data processed with eviews

The coefficient of determination test ( $R^2$ ) of 0.951 indicates that the Exchange Rate (ER), inflation (Inf), FDI, and domestic consumption (DC) simultaneously affect the non-oil and gas export variable (Ngx) by 95 percent while 5 percent is influenced by other variables outside the study.

**Table 4**  
**Sub Structural II, Partial t-Test**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.012083	0.004538	2.662.882	0.0186
D(LNER)	-0.106705	0.029748	-3.587.024	0.0030
D(Inf)	0.000283	0.000499	0.566178	0.5802
D(LNFDI)	0.010835	0.007875	1.375.914	0.1905
D(LNDC)	0.809225	0.100444	8.056.500	0.0000
D(LNNgx)	0.058136	0.016784	3.463.761	0.0038

Source: data processed with eviews

Equation of sub Structural II:

$$Z = 0,012 - 0,106 + 0,0002 + 0,010 + 0,809 + 0,058 + 0,389$$

1. Exchange Rate (ER) with significance  $0,003 < 0,05$  and t-count  $-3,587 < t\text{-table } 2,144$  so that the Exchange Rate has a significance negative effect 0,106 on GDP.
2. The probability of sig. Inflation (Inf) and FDI  $> \alpha (0,05)$  with t-count  $< t\text{-table } 2,144$  so it is not significant to GDP.
3. Domestic consumption (DC) has a significance of  $0,000 < 0,05$  with t-count  $8,056 > t\text{-table } 2,144$  has a positive and significant effect of 0.809 on GDP.
4. Non-oil and gas exports (Ngx) with a significance of  $0,003 < 0,05$  with t-count  $3,463 > t\text{-table } 2,144$ , a significant positive effect of 0,058 on GDP.

**Table 5**  
**Sub Structural II, Simultaneous f-Test**

<b>F-statistic</b>	1.571.410
<b>Prob(F-statistic)</b>	0.000026

Source: data processed with eviews

Table 5 shows a significance level of  $0,000 > 0,05$  with f-count  $1,571 > f\text{-table } 2,90$ . So that the independent variables simultaneously have no significant effect on GDP.

**Table 6**  
**Sub Structural II, R Square-Test**

<b>R-squared</b>	0.848764
<b>Adjusted R-squared</b>	0.794751

Source: data processed with eviews

Based on table 6 the value of  $R^2$  is 0.848, it is obtained that the exchange rate variable (ER), inflation (Inf), FDI, domestic consumption (DC), and non-oil and gas exports (Ngx) simultaneously affect 85 percent of the GDP variable and 15 percent influenced by other variables.

#### 4.2. Path Analysis Result

**Table 7**  
**Effect of Exchange Rate, Inflation, FDI, Domestic Consumption, and Non-oil and gas exports on GDP**

Variable Effect	Sig.	T	R <sup>2</sup>	F	Direct Effect	Indirect Effect through non-oil and gas exports	Total Effect
ER, Inf, FDI, DC on Ngx							
exchange rate	0,036	-2,283			<b>-1,103</b>	-	-1,103
Inflation	0,033	2,327			<b>0,030</b>	-	0,030
FDI	0,119	1,643	0,951	7,846	<b>0,206</b>	-	0,206
domestic consumption	0,000	8,196			<b>2,721</b>	-	2,721
ER, Inf, FDI, DC and Ngx on GDP							
exchange rate	0,003	-3,587			-0,106	<b>-0,064</b>	-0,17
Inflation	0,580	0,566			0,0002	<b>0,002</b>	0,0022
FDI	0,190	1,375			0,010	<b>0,012</b>	0,022
domestic consumption	0,000	8,056	0,848	1,571	0,809	<b>0,158</b>	0,967
non-oil and gas exports	0,003	3,463			<b>0,058</b>	-	0,058

Based on the regression results from the sub-structural equation III above, it is obtained:

1. The indirect effect of the exchange rate (ER) on GDP is -0.064.
2. The indirect effect of inflation (Inf) on GDP through non-oil and gas exports (Ngx) is 0.002.
3. The indirect effect of FDI on GDP through non-oil and gas exports (Ngx) is 0.012.
4. The direct effect of domestic consumption (DC) on GDP is 0.809.

#### 4.3. Discussion

##### **Effect of Exchange Rate, Inflation, FDI, and Domestic Consumption on Non-Oil and Gas Exports**

The results of the regression test carried out have a significant negative relationship between the exchange rate and non-oil and gas exports. This shows that every 1 percent of the rupiah depreciates will cause an increase in non-oil and gas exports by 1.103. There was an increase in demand for domestic commodities by foreigners because the prices of Indonesian

non-oil and gas commodities in the international market were cheaper than foreign products. On the other hand, the strengthening of the rupiah indicates a decline in demand for domestic non-oil and gas export commodities.

This is in line with research (Mejaya et al., 2016; Hena, 2020, Sudarusman, 2020) which found a significant negative effect of the exchange rate on export volume so that it will be inversely proportional to its strengthening. Meanwhile (Panti, 2018) found a significant positive exchange rate of 62.5 percent for non-oil and gas exports in East Java with the destination country of America. In contrast to research (Hasbiullah et al., 2018) which found that cocoa production, prices, and export duties were significant for the increase in cocoa exports. While the exchange rate and Grateks-2/Gernas have no significant effect on cocoa exports in South Sulawesi.

The results of the regression test found that there was a positive and significant relationship between inflation and non-oil and gas exports of 0.030. The increase in inflation will be directly proportional to the increase in non-oil and gas exports in real terms. Although in general there is an increase in the price of domestic goods, this does not affect the amount of foreign demand. Blanchard's theory of inflation is not in line with the conditions that occur in Indonesia, because non-core inflation that occurs is a policy issued by the domestic government, so it does not affect the purchasing power of foreigners. In line with (Permatasari et al., 2019) in their findings 2018.

This is different from research (Yanti & Sudirman, 2017) which found a significant negative effect of inflation on the value of apparel exports in Indonesia. (Larasati & Budhi, 2018) found an insignificant effect on Indonesia's footwear exports to China, because footwear is a primary good so the fluctuations in inflation have no effect on footwear demand. This is different from research (Rasyid, 2020; Sirait & Pangidoan, 2018) where in the partial test inflation does not have a significant effect on non-oil and gas exports in Indonesia.

The results of the regression test carried out did not show a significant effect of FDI on non-oil and gas exports. The massive increase in development projects in Indonesia through FDI is considered to be able to improve facilities and infrastructure in supporting open trade activities in fact, it has not had an impact on exporters due to the economic motivation (profit) by FDI actors (Hidayat et al., 2017; Suriyani & Sudiarta., 2018) investment is a means of increasing wealth by investing a certain amount of capital in productive projects with the hope of getting profits in the future. In line with Gerald M. Meier in his observations, he concluded that FDI in developing countries was quite stagnant with the rate of return still being the burden of returns, causing exports to have no significant effect. Another case (Hotsawadi & Widyastutik, 2020) which shows a significant positive effect of FDI on non-oil and gas exports.

The results of the regression test carried out have a significant positive relationship between domestic consumption and non-oil and gas exports of 2.721. It can be seen that the increase in consumption is significantly proportional to non-oil and gas exports. This can happen because exports are a surplus of domestic production which are supplied and traded abroad using the foreign exchange to make a profit. So the production will meet the needs of domestic consumption and the surplus will be exported abroad. This is in line with Salvatore's (2013) theory regarding international trade which will occur if there is a surplus of supply and demand for several goods and services between countries.

### **Effect of Exchange Rate, Inflation, FDI, Domestic Consumption, and Non-Oil and Gas Exports on GDP**

The regression results show a significant negative effect of the exchange rate on GDP so that every 1 percent depreciation of the rupiah will cause an increase in GDP of 0.106. As the Mundell-Fleming theory, when the exchange rate increases, there is a decrease in exports which results in a decrease in total output (GDP). This is different from the findings (Astuti & Ayuningtyas, 2018; Fauziah & Khoerulloh, 2020) regarding the positive correlation of the exchange rate to economic growth and GDP.

The results of the regression test carried out have a positive and insignificant relationship between inflation and GDP due to foreign purchasing power related to domestic products. Mild inflation can increase the economic motivation of entrepreneurs through increased production. Opinions (Rahardja & Manurung, 2017) regarding the increase in the price of raw materials can increase prices and affect the number of exports received. However, in the findings (Putra & Sutrisna, 2017; Ardiansyah, 2017) in real terms there is a negative effect of inflation on economic growth in Indonesia, the increase in fuel prices in 2008 led to an increase in prices in general in the community.

The results of the regression test carried out have a positive relationship that has no significant effect between FDI and GDP. Economic growth is the attraction of investor confidence in investing in a country, the size of the market can be measured by the level of GDP. So that the increase will be directly proportional to GDP, but from the research results in real terms it does not affect the increase. This is in line with the findings (Marlina, 2018; Sari & Baskara, 2018) which state that simultaneously and partially net exports and FDI have no significant positive effect on economic growth in the Provinces of South Sulawesi and Indonesia. In contrast to the findings (Suhendro & Siregar, 2019; Handoyo et al., 2020) it was found that FDI had a positive and significant effect on economic growth. FDI through tax collections is used for the construction of infrastructure projects.

The results of the regression test found a positive relationship between domestic consumption which had a significant effect on GDP. Every 1% increase in domestic consumption affects an increase in GDP by 0.809. In line with Keynes' theory (Sukirno, 2016) that when people have a high level of income they will tend to consume more, which and have an effect on increasing the total output of GDP. In contrast to research (Syaifuddin et al., 2017) that household consumption does not affect economic growth, although there is an increase in household consumption due to an increase in the income of the Jambi community, this does not have a significant effect.

The results of the regression test found a positive relationship between non-oil and gas exports and GDP which had a significant effect, an increase in non-oil and gas exports of 1% would increase state income through foreign exchange and have an impact on GDP of 0.058. However, the impact is still relatively low because the products exported are still classified as commodities of raw materials and processed products so they have a low selling value and are not yet competitive in the global market in terms of product diversification. In line with research (Waheed et al., 2020) in his research, non-oil and gas exports in real terms are directly proportional to economic growth in Saudi Arabia. Where the increase, can help reduce dependence on oil exports and produce new findings for economic stability. (Harahap et al., 2020; Garini & Weri, 2020) that the increase in exports is inversely proportional to economic growth and has no significant effect. Because the exported products are still classified as raw material commodities, so they have a low selling value and are not yet competitive in the global market in terms of product diversification.

(Affandi et al., 2018; Siregar et al., 2019) that positive exports are significant for economic growth in Indonesia where the role of entrepreneurs is in increasing economic growth through innovation both in increasing productivity, efficiency, and market expansion. (Resti & Monika, 2020) an increase in creative economy exports by 15.54 trillion rupiahs increase to 7.81 trillion rupiahs in creative economy GDP. This means that the rise and fall of non-oil and gas exports will be followed by a movement of economic growth that is directly proportional.

### **Effect of Exchange Rate, Inflation, FDI, and Domestic Consumption on GDP through Non-Oil and Gas Exports**

The results show a significant negative effect of the exchange rate on GDP through non-oil and gas exports of 0.064. An increase in the exchange rate causes a decrease in total state revenue due to the increase in the price of the dollar (foreign exchange) against the rupiah. The Dollar is the international currency used in open trade transactions, debt and investment so it will affect the GDP in Indonesia. Inflation shows a positive effect on GDP through non-oil and gas exports of 0.002, an increase in prices, in general, will increase the motivation of exporters to produce goods and have an impact on increasing total GDP. FDI is directly proportional to the increase in GDP through non-oil and gas exports of 0.012. Meanwhile, domestic consumption has a significant effect on the increase in GDP by 0.809. Increased consumption of non-oil and gas export commodities (local products) will accelerate economic recovery, expand employment and domestic productivity, and have an impact on increasing GDP in Indonesia.

### **5. Conclusion**

The research showed that partially the exchange rate has a negative and significant effect. Inflation and domestic consumption (DC) have a positive and significant effect, while FDI is not significant for non-oil and gas exports (Ngx). Simultaneously exchange rate (ER), inflation (Inf), FDI, and domestic consumption (DC) have a positive and significant impact on non-oil and gas exports (Ngx).

Partially, the exchange rate (ER) is a significant for GDP while inflation (Inf) and FDI showed that do not have a significant on GDP. Domestic consumption (DC) and non-oil and gas exports (Ngx) have a significant effect on GDP. Simultaneously significant effect on GDP.

The next result of indirect effect show that, the inflation and FDI have a significant effect while exchange rate and domestic consumption do not has a significant effect on GDP.

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