

## Analysis of Indonesian Non-Oil and Gas Export Development by Manufacturing Sector 2016-2020 Period

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### ABSTRACT

Indonesia's exports come from oil and gas and non-oil exports. Indonesia's non-oil and gas exports make a large contribution compared to exports from oil and gas. In terms of non-oil and gas exports by sector, the largest contribution to national exports is the export of the manufacturing. Indonesia's exports decreased in 2019 and 2020, respectively by 167,683 million US\$ and 163,191.8 US\$. This is due to the Covid-19 pandemic that occurred in Indonesia and also hit many countries in the world. The purpose of this study is to analyze the development of non-oil and gas exports by manufacturing sector. The research approach is a quantitative description approach, where the data source is secondary data taken from BPS and [satudata.kemendag.go.id](http://satudata.kemendag.go.id). Indonesia's trade balance experienced a deficit in 2018 and 2019. In 2020 it experienced a surplus again after an improvement in economic conditions after a year hit by covid-19. The export development of the manufacturing decreased in 2017, 2018 and 2019. In 2020, it increased again by 2.91 percent. manufacturing exports contributed the largest to Indonesia's national exports until 2020, contributing 80.33 percent, of which manufacturing exports became Indonesia's mainstay export in the period before and during this Covid-19 period.

**Keywords:** Balance of Trade, International Trade, Manufacturing Sector, Non-Oil Export, Oil and Gas Export

**JEL Classification:** F1, F16, F19

## **INTRODUCTION**

The economic development of a country is marked by an increase in the delivery of goods, whether originating from within the country to abroad or vice versa. This is one of the main drivers of a country's economic growth (Wulandari & Sari Lubis, 2019)

Trade is one alternative to achieve a development, especially if it reaches an international scale, namely international trade. In international trade, buying and selling activities are called export-import transactions. Export-import transactions are product buying and selling transactions between entrepreneurs residing in different countries (Wulandari & Sari Lubis, 2019).

“Either directly or indirectly, foreign trade plays a role in the process of economic development, namely it can increase income, open job opportunities, increase foreign exchange earnings, transfer capital and technology from abroad and can develop new domestic industries or industrialization efforts” (Rachman, 2013). International trade in various countries is one of the main factors to increase GDP. International trade can also encourage industrialization, progress in transportation, globalization and the emergence of multinational companies. International trade is one of the important aspects in improving the economy of every country. In today's world, there is not a single country that does not conduct trade relations with other countries or export and import products. Every country, the economy is already open to the international world and intertwined with the international community, including Indonesia. “Foreign trade is increasingly important, not only in relation to outward-oriented development, namely people in other countries as markets for domestic production, but also in relation to the procurement of capital goods to spur domestic industry”. (Endang Rahayu & dkk, 2020)

“International trade is trade carried out by residents of one country with residents of other countries on the basis of mutual agreement. The population in question can be between individuals (individuals and individuals), between individuals and the government or the government of a country and the government of another country”. (Endang Rahayu & dkk, 2020).

“One form of foreign trade is exports, where exports play an important role in economic growth, especially for developing countries. The export industry is a sector that forms the basis for productivity development, then this productivity gradually spreads to all economic sectors. This export development is a major part of the substance of 2 economic perspectives, namely the macroeconomic perspective, where export activities enable the national economy to become better at increasing foreign exchange reserves, providing employment, creating backwards and forward linkages, and finally achieving a higher standard of living” (Schlegelmich, B.B, & J.N.Crook, 2008). Meanwhile, from a micro perspective, export activities can provide a competitive advantage for individual companies, will improve the company's financial position, increase capacity utilization and technology standards will also increase (Hady, 2009).

International trade can be seen from the size of exports and imports in a country where international trade experiences a surplus if exports are greater than imports. And vice versa international trade deficit if exports are smaller than imports. Export is selling goods from within the country out of circulation of the Republic of Indonesia and the goods sold must be reported to the Directorate General of Customs and Excise, Ministry of Finance, while import is buying goods from abroad into circulation of the Republic of Indonesia and the goods purchased must be reported to the Directorate General Customs and Excise Ministry of Finance (Haikal, 2009).

Indonesia's exports come from oil and gas exports and non-oil exports. Indonesia's non-oil and gas exports make a large contribution compared to exports from oil and gas. In fact, Indonesia imports more oil and gas from abroad. Therefore, Indonesia is trying to increase its exports from non-oil and gas. Non-oil and gas exports by sector consist of exports from the agricultural sector, processing industry, mining and others. In terms of non-oil and gas exports by sector, the largest contribution to national exports is the export of the manufacturing industry, followed by the mining and agriculture sectors. Therefore, in this study the author discusses the development of non-oil and gas exports by manufacturing sector and the contribution of manufacturing industry exports to Indonesia's national exports.

## **LITERATURE REVIEW**

### **Balance of Payment**

"The study of the influence of international economic relations on the domestic economy will be recorded in the "International Balance of Payments", then it can be analyzed matters relating to issues of trade in goods (exports and imports), service transactions, exchange rates, debt values and repayment obligations, transaction deficits. running, and foreign exchange reserves" (Endang Rahayu & dkk, 2020). "International balance of payments is a systematic record of all international economic transactions that occur between residents of a country and residents of other countries within a certain period (1 year) which is usually expressed in money (US dollars)" (Endang Rahayu & Pohan, Ekonomi Internasional, 2015).

### **Current Account Balance**

"The current account balance will be in a surplus if exports are greater than imports plus net transfers abroad, that is, if the receipts from trade in goods and services and transfers are greater than the payments. On the other hand, the current account balance will experience a deficit if exports are lower than imports and receipts from trade in goods and services and transfers are smaller than payments" (Dornbush, 2008).

### **Export**

"Export is a country that purchases products made by domestic companies. The most important determinant of exports is the ability of the country to distribute competitive products in foreign markets" (Benny, 2013). "Export activity is a trading system by distributing products from within the country to abroad in accordance with applicable regulations. Exports are the sum of all goods and services sold by a country abroad, including goods, insurance, and services in a given year" (Sutedi, 2014).

## **RESEARCH METHOD**

The approach in this study is a quantitative descriptive approach, to analyze how the development and contribution of non-oil and gas exports by manufacturing industry sector to National Exports in Indonesia. The data source comes from the [satudata.kemendag.go.id](http://satudata.kemendag.go.id) website in the form of secondary data, namely Indonesia's national export data, Indonesia's total international trade and Indonesia's trade balance.

## **RESULTS**

According to (Yusuf, Y & Chalid N, 2020) explained that broadly, Indonesia's export commodities consist of two components, namely oil and gas exports and non-oil and gas exports. So, Indonesia's national exports come from oil and gas exports and non-oil exports. Indonesia's non-oil and gas exports make a large contribution compared to

exports from oil and gas. Indonesia imports more oil and gas from abroad. Therefore, Indonesia is trying to increase its exports from non-oil and gas.

Non-oil and gas exports by sector consist of exports from the agricultural sector, processing industry, mining and others. In terms of non-oil and gas exports by sector, the largest contribution to national exports is the export of the manufacturing industry, followed by the mining and agriculture sectors.

How Indonesia's international trade from 2016 - 2021 can be seen in table 1 below:

**Table 1.** Indonesia's Trade Balance 2016-2021

INDONESIA'S TOTAL Trade Balance Period 2016 – 2021 (Million US\$)									
Description	2016	2017	2018	2019	2020	Trend (%) 16- 20	2020	2021	Perub. (%) 21/20
<b>Total Trade</b>	280,839.0	325,813.7	368,724.0	338,958.7	304,760.6	2.05	171,386.4	226,737.9	32.30
Oil and gas	31,845.3	40,060.6	47,040.6	33,674.6	22,507.9	-8.31	13,076.9	20,112.2	53.80
Non-oil	248,993.7	285,753.1	321,683.5	305,284.1	282,252.7	3.22	158,309.5	206,625.8	30.52
<b>Export</b>	145,186.2	168,828.2	180,012.7	167,683.0	163,191.8	2.30	90,019.0	120,583.4	33.95
Oil and gas	13,105.5	15,744.4	17,171.7	11,789.3	8,251.1	-11.44	4,588.6	6,807.8	48.36
Non-oil	132,080.7	153,083.8	162,840.9	155,893.7	154,940.8	3.43	85,430.4	113,775.6	33.18
<b>IMPORT</b>	135,652.8	156,985.6	188,711.4	171,275.7	141,568.8	1.74	81,367.5	106,154.5	30.46
Oil and gas	18,739.8	24,316.2	29,868.8	21,885.3	14,256.8	-6.31	8,488.3	13,304.4	56.74
Non-Oil	116,913.0	132,669.3	158,842.5	149,390.4	127,312.0	2.93	72,879.1	92,850.1	27.40
<b>Balance of Trade</b>	9,533.4	11,842.6	-8,698.7	-3,592.7	21,623.0	0.00	8,651.5	14,428.9	66.78
Oil and Gas	-5,634.3	-8,571.9	-12,697.1	-10,096.1	-6,005.7	-2.96	-3,899.7	-6,496.6	-66.59
Non-oil	15,167.7	20,414.5	3,998.4	6,503.3	27,628.8	0.56	12,551.2	20,925.5	66.72

Source: satudata.kemendag.go.id, 2021.

Indonesia's international trade balance in 2016 was US\$ 9,533.4 million and increased in 2017 by US\$ 11,842.6 million. In 2018 Indonesia's trade balance experienced a deficit of -8,698.7 US\$, which means that the value of imports is greater than the value of Indonesia's exports. Then experienced a deficit again in 2019 of -3,592.7 million US\$. The COVID-19 pandemic has suppressed the deepening of Indonesia's trade balance deficit. However, the government continues to push to increase exports compared to imports, where in 2020 Indonesia's trade balance returned to a surplus of 21,623 million US\$.

The development of Indonesia's export value from 2013 to 2017 amounted to USD 822,860.22 million, where the value of Indonesia's exports continued to experience a slowdown until 2016. Factors affecting the export slowdown were the slowing down of national economic growth and world economic growth (Suryono, 2019).

Indonesia's exports in 2016, 2017 and 2018 continued to increase by 145,186.2 million US\$, 168,828.2 million US\$ and 180,012.7 million US\$, respectively. However, in 2019 the value of Indonesia's exports decreased to 167,683 million US\$ and decreased again in 2020 to 163,191.8 US\$. This condition occurred due to the COVID-19 pandemic that hit many countries in the world, including Indonesia. The level of public consumption fell, due to stay at home, the number of workers who were at home and laid off from work. So that production has decreased which also has an impact on the decline in the value of exports.

Seen from the data in table 2, Indonesia's non-oil and gas exports have increased from 2016, 2017 and 2018 respectively by 132,080.7 million US\$, 153,083.8 million US\$ and 162,840.9 million US\$. The Covid-19 pandemic had an impact on non-oil and gas exports in 2019 and 2020 which continued to decline. In 2019 it was 155,893.7 million US\$ and decreased again to 154,940.8 million US\$.

**Table 2.** Non-Oil and Gas Exports by Indonesian Sector (Million US\$) 2016-2020

	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Agriculture	-3,407	3,671.00	3,431	3,672.40	4,119.00
Manufacture	110,504.10	125,103.02	130,118.10	127,377.70	131,087.00
Mining	18,504.10	24,303.80	29,286.00	24,897.00	19,729.80
Other	4.9	5.80	5.8	6.7	5
<b>Non-oil export</b>	<b>132,080.7</b>	<b>153,083.8</b>	<b>162,840.9</b>	<b>155,893.7</b>	<b>154,940.8</b>

Source: satudata.kemendag.go.id, 2021. (Satudata, 2021)

The sector that makes a large contribution to non-oil and gas exports is the manufacturing sector. Then followed by the mining sector and the agricultural sector and other sectors. The manufacturing sector is currently the mainstay sector to increase Indonesia's national exports.

**Tabel 3.** Export Development of the Processing Industry and Its Contribution to National Exports in 2016-2020

Year	Export Value of Processing Industry (Million US\$)	Export Development of Processing Industry (%)	National Export (Million US\$)	Contribution of Processing Industry Exports to National Exports (%)
2016	110,504.10	-	145,186.21	76.11

2017	125,103.02	13.21	168,828.19	74.10
2018	130,118.10	4.01	180,012.67	72.28
2019	127,377.70	-2.1	167,683.01	75.96
2020	131,087.00	2.91	163,191.83	80.33

Source: satudata.kemendag.go.id (precessed) (Satudata, 2021).

The existence of the COVID-19 pandemic has an impact on the export of the manufacturing, which can be seen from the development of the export of the manufacturing, which decreased in 2019 by -2.1 percent, but in 2020 it increased again by 2.91 percent. If seen from the data in table 3, the manufacturing sector provides the largest contribution in increasing national exports. The manufacturing sector is still consistently providing the largest contribution to the achievement of the national export value. In January-December 2019, exports of manufacturing products were able to penetrate up to 127,377.7 million US dollars or contributed 75.96 percent of Indonesia's total exports which touched 167,683.01 million US dollars last year. Its contribution increased again in 2020 by 131,087 million US\$ or contributed 80.33 percent of total national exports which touched 163,191.83 million US\$.

Minister of Industry Agus Gumiwang Kartasasmita in accordance with his statement said that "The government is indeed focusing on boosting the value of exports to improve our trade balance. Therefore, the manufacturing sector has a very important role to achieve this target. (<https://kemenperin.go.id/artikel/21409/Industri-Pengolahan-Jadi-Andalan-Ekspor-Nasional>). Judging from data from the Central Statistics Agency (BPS, 2021), there are five sectors that contributed the most to the achievement of the export value of the processing industry throughout 2019, namely the food industry which contributed up to 27.16 billion US dollars or 21.46 percent. Then the base metal industry amounted to 17.37 billion US dollars or contributed 13.72 percent.

Next, the shipping value of the chemical industry and chemical goods was recorded at 12.65 billion US dollars (10 percent), the apparel industry penetrated 8.3 billion US dollars (6.56 percent), as well as the paper and paper goods industry which paid 7.27 billion US dollars (5.74 percent). When viewed from the sector, in 2020 non-oil and gas exports from the processing industry increased by 2.95 percent compared to the same period in 2019, as well as exports of agricultural products increased by 13.98 percent, while exports of mining and other products decreased by 20.70 percent.

The five main destinations for exports of Indonesian manufactured products in 2019 were to the United States (13.64 percent), China (13.48 percent), Japan (8.7 percent), Singapore (6.94 percent), and India (5.17 percent). The largest non-oil and gas exports in 2020 were to China at US\$3.32 billion, followed by the United States at US\$1.87 billion and Japan at US\$1.25 billion. The contribution of the three countries reached 41.50 percent.

There is a need for government efforts to continue to expand the market to non-traditional countries, conduct international promotion programs with promotion and export assistance, increase production capacity for exports, expand international production networks and reduce export barriers. The Ministry of Industry has also taken various precise steps, namely by increasing competitiveness for fostering domestic industry and preparing superior products, utilizing free trade agreements (FTA) and expanding markets to non-traditional countries.

## CONCLUSION

1. Indonesia's trade balance experienced a deficit in 2018 and 2019. In 2020, it experienced a surplus again after an improvement in economic conditions after a year of being hit by covid-19.
2. Export development of the manufacturing sector decreased in 2017, 2018 and 2019. In 2020, it increased again by 2.91 percent.
3. Exports of manufacturing sector provide the largest contribution to Indonesia's national exports, where exports of manufacture are Indonesia's mainstay exports in the period before and during this Covid-19 period.

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## DECLARATION OF CONFLICTING INTERESTS

We declare that we do not have any conflict of interest or conflict related to this article with the ICPM Bali 2021 committee or staff from AIBPM

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