

Journal Analysis of Palm Oil Strategic Issues

English Edition
Volume IV, No. 19
February 29th, 2024

THE CONTRIBUTION OF PALM OIL AS A SOURCE OF FOREIGN EXCHANGE AND SURPLUS IN INDONESIA'S TRADE BALANCE

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RESUME

The contribution of the palm oil industry as a source of foreign exchange is demonstrated through two mechanisms, namely export foreign exchange and import substitution foreign exchange. Foreign exchange for exports of palm oil products continues to increase, resulting in a large surplus in the non-oil and gas trade balance. Likewise, foreign exchange saving from import substitution (due to the implementation of the palm-based biodiesel program) also continues to increase, thereby reducing the oil and gas trade balance deficit. The net effect of "With Biodiesel and Palm Oil" can generate a large surplus in Indonesia's trade balance. On the other hand, "Without Biodiesel and Palm Oil", Indonesia's trade balance will experience a deficit.

INTRODUCTION

For developing countries like Indonesia, trade surplus is an important variable for expanding capacity and sustainable economic growth. Trade surplus is obtained from positive net exports, namely if the export value is higher than the import value.

Trade surplus can be used to finance economic sectors. The subsequent impact is an increase in the "economic pie" which is reflected into increased employment opportunities, production of goods/services, and income. These economic benefits show the importance of a country having a superior sector that is able to create a trade surplus and increase foreign exchange reserves.

The contribution of the palm oil industry to Indonesia's trade balance is demonstrated through its role as a source of foreign exchange for exports. Apart from targeting the export market, the development of domestic palm oil downstreaming is also part of the import substitution strategy which contributes to foreign exchange saving ([PASPI Monitor, 2023](#)). The development of palm-based biodiesel with increasingly intensive mandatory biodiesel policy has great potential to further increase foreign exchange saving on diesel imports.

In other words, the palm oil industry is a source of foreign exchange, both foreign exchange for exports of palm oil and its derivative products and foreign exchange saving for imported diesel fuel due to the implementation of the mandatory biodiesel policy. These two sources of palm oil foreign exchange have contributed significantly to improving Indonesia's trade balance (trade account).

The article in this paper will discuss how the palm oil industry performs as a source of foreign exchange. The performance of the palm oil industry will also show the contribution of palm oil to the oil and gas and non-oil and gas trade balances which will lead to Indonesia's trade balance.

THE SIGNIFICANCE FOREIGN EXCHANGE OF PALM OIL EXPORTS

The role of the palm oil industry as a source of foreign exchange for Indonesia has been widely revealed by various empirical studies (World Growth, 2011; Rifin, 2012; Sipayung, 2018; Edward, 2019). Moreover, since Indonesia's export-oriented palm oil trade policy in 2000, the palm oil industry has become a reliable source of foreign exchange. This is confirmed by the trend of increasing foreign exchange for exports of palm oil products from year to year ([PASPI, 2023](#)).

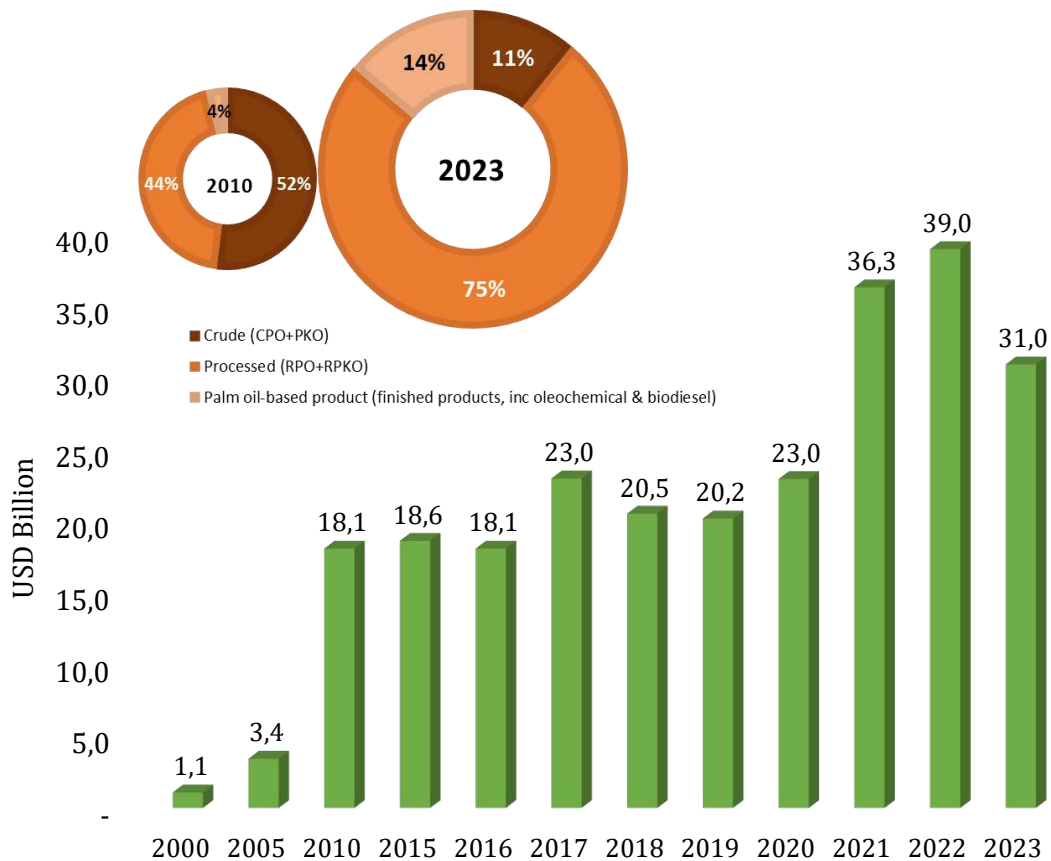


Figure 1. Foreign Exchange Growth and Composition of Palm Oil Product Exports for the Period 2000-2023 (Source: BPS, data processed by PASPI, 2024)

Based on the data from Statistics Indonesia (BPS), the export value of palm oil products has increased quite significantly in the last twenty years. The export value of palm oil products in 2000 was only USD 1.1 billion in 2000 and has increased to USD 31 billion in 2023. In fact, the value of palm oil exports in 2022 has succeeded in setting a record for the highest palm oil foreign exchange in the history of the national palm oil industry ([PASPI Monitor, 2022^a](#)).

In addition to generating large amounts of foreign exchange and experiencing an increase, export foreign exchange is also considered to be of higher quality because the composition of exports is dominated by processed products (refined and palm oil-based products) rather than crude products. Before 2010, Indonesia's palm oil downstreaming mostly occurred in palm oil importing countries, while domestic palm oil downstreaming was so slow that exports in 2010 were dominated by crude (52 percent), processed products (44 percent), and finished products (4 percent).

Quite rapid and significant downstreaming progress occurred after 2015, after the integration of domestic palm oil downstreaming policy with international trade policy, namely export levy ([PASPI Monitor, 2024](#)). The success of domestic palm oil downstreaming is demonstrated by the composition of Indonesia's palm oil exports in 2023 which were dominated by processed products (75 percent) and finished products (14 percent), while crude exports were only 11 percent.

Another interesting thing to discuss is related to the development of export performance, especially in the 2022-2023 (Table 1). The export value of palm oil products decreased from USD 39 billion to USD 30.9 billion. On the other hand, the export volume of palm products increased from 34 million tons to 35.5 million tons. This indicates that there has been a decline in export prices. Using export unit price (export value divided by export volume) as a proxy for export prices, it shows that there has been a decrease in the export unit price received by Indonesia from USD 1,147.1 per ton to USD 871.7 per ton.

Table 1. Development of Export Performance of Indonesia's Palm Oil Products and Their Composition in 2020-2023

Export Composition (Million Ton)	2020		2021		2022		2023	
	Value	%	Value	%	Value	%	Value	%
Crude (CPO + PKO)	7.5	7.5	2.6	22.0	3.6	10.5	3.7	10.5
Refined (RPO + RPKO)	22.6	22.6	27.6	66.5	25.7	75.8	26.8	75.3
Palm Oil-based Product (Biodiesel + Oleochemical)	3.9	3.9	4.4	11.5	4.6	13.7	5.0	14.1
Total Export Volume	34.0	34.0	34.6	100.0	34.0	100.0	35.5	100.0
Total Export Value (Billion USD)	23.0	23.0	36.3	100.0	39.0	100.0	31.0	100.0
Export Unit value (USD/ton)	675.4	675.4	1,050.6	-	1,147.1	-	871.7	-

Source: [BPS](#) (data processed by PASPI, 2024)

The decline in the export price of palm oil products is also in line with the downward trend in the average global CPO price (CIF Rotterdam) from USD 1,276 per ton in 2022 to USD 886.5 per ton in 2023 (World Bank, 2024). The trend of very high global CPO prices in 2021-2022 is an anomalous phenomenon as a result of the Covid-19 pandemic and the Russia-Ukraine war (PASPI Monitor, [2022](#), [2023a](#)). Meanwhile, the world CPO price trend in 2023 showed normal price fluctuations, where the increase in demand for palm oil (and other vegetable oils) was also responded to by the production of palm oil (and other vegetable oils) which also increased ([USDA, 2024](#)).

FOREIGN EXCHANGE SAVING BY IMPORT SUBSTITUTION THROUGH PALM-BASED BIODIESEL

Since 2004, Indonesia has changed from a net exporter of petroleum to a net importer of petroleum, including a net importer of fossil diesel. Indonesia's imports of fossil diesel have increased in line with domestic demand which has also increased due to population and economic growth. If there is no domestic substitution for imported diesel fuel, Indonesia's dependence on imported diesel will increase, potentially causing socio-economic instability.

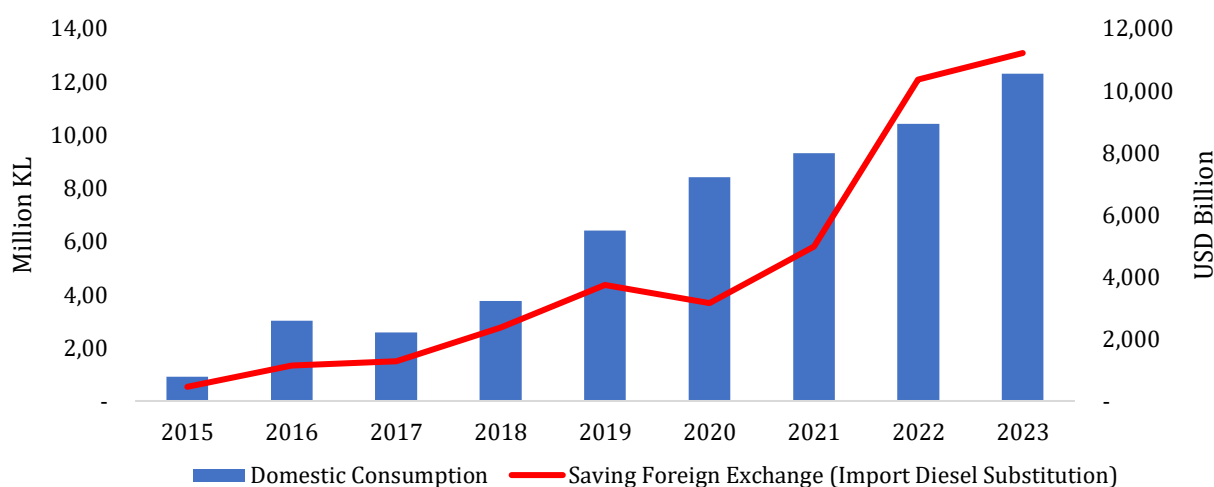


Figure 2. Development of Domestic Absorption and Saving on Imported Diesel Due to Palm-Based Biodiesel for the 2014-2023 Period (Source: [APROBI, 2024](#); [BPS, 2023](#), data processed by PASPI, 2024)

An effort to reduce this dependence is by producing palm-based biodiesel which can substitute the use of fossil diesel, especially those sourced from imports. The use of palm-based biodiesel to substitute imported fossil diesel can save foreign exchange used to import fossil diesel ([PASPI 2023](#); PASPI Monitor, [2021](#), [2023^b](#)). Foreign exchange saving from import substitution of fossil diesel is increasing along with the domestic use of palm-based biodiesel and the increasingly intensive mandatory biodiesel policy (Figure 2).

Foreign exchange saving from import substitution of imported fossil diesel has increased significantly from around USD 456 million in 2015 to around USD 11.2 billion in 2023. The increase in foreign exchange for import substitution is in line with the increase in import substitution for diesel fuel, which is reflected in the increase in domestic biodiesel consumption, namely from 1.8 million tons to 12.3 million tons in the same year period.

THE PALM OIL ENLARGES INDONESIA'S TRADE SURPLUS

The contribution of the palm oil industry to the trade balance (trade account) of Indonesia (Table 2) can be seen in the non-oil and gas trade balance and oil and gas trade balance ([PASPI 2023](#)). Foreign exchange for exports of palm oil products (Figure 1) affects Indonesia's non-oil and gas trade balance. Meanwhile, the contribution of the palm oil industry to the oil and gas trade balance is demonstrated by foreign exchange saving from imported diesel fuel substitution due to the implementation of the biodiesel program in Indonesia (Figure 2).

Table 2. Contribution of Palm Oil as a Source of Foreign Exchange to Indonesia's Trade Balance

Description (Billion USD)	20 15	2020	2022	2023
Palm Oil Export Foreign Exchange	18.6	23.0	39.0	31.0
Import Substitution Foreign Exchange (Biodiesel)	1.1	3.1	10.4	11.2
Palm Oil Export Foreign Exchange + Import Substitution Foreign Exchange (Biodiesel)	19.7	26.1	49.4	42.2
Oil and Gas Trade Balance				
- Without Biodiesel	- 6.4	- 9.1	-3 4.7	-30.4
- With Biodiesel	-5.9	-5.9	-24.4	-19.9
Non-Oil and Gas Trade Balance				
- Without Palm Oil	-5.0	4.7	39.8	25.9
- With Palm Oil	13.64	27.7	78.8	56.8
Balance Sheet Totals				
- Without Biodiesel and Palm Oil	- 11.4	- 4.4	5.1	-4.5
- With Biodiesel and Palm Oil	7.7	21.7	5 4.7	36.9

Source: [APROBI 2023](#); [BPS 2023](#) (data processed by PASPI)

The effect of import substitution foreign exchange due to the implementation of the biodiesel program on the oil and gas trade balance can be seen in the difference between "Without Biodiesel" versus "With Biodiesel". The oil and gas trade balance deficit continues. Through import substitution foreign exchange saving, the "With Biodiesel" oil and gas trade balance deficit is lower than the "Without Biodiesel" deficit. For example, the deficit "With Biodiesel" oil and gas trade balance in 2023 was USD 19.9 billion or lower than the "Without Biodiesel" deficit (USD 30.4 billion). This shows that the mandatory biodiesel policy is an important instrument in reducing Indonesia's oil and gas trade balance deficit.

Meanwhile, the influence of foreign exchange on exports of palm oil products can be seen in the difference in the "With Palm Oil" non-oil and gas trade balance versus the "Without Palm Oil" one. In the "Without Palm Oil" condition, the non-oil and gas trade balance experienced a surplus with a relatively small value and even had a deficit in 2015. Meanwhile, in the "With Palm Oil" condition, palm oil export foreign exchange managed to create a non-oil and gas trade balance surplus with a large value. For example, the "Without Palm Oil" non-oil and gas trade balance surplus in 2023 was

only USD 25.9 billion but taking into account foreign exchange for palm oil exports, the “With Palm Oil” non-oil and gas trade balance surplus was almost double to USD 56.8 billion.

The net effect of the two sources of palm oil foreign exchange is shown by the difference in the total trade balance between “Without Biodiesel and Palm Oil” versus “With Biodiesel and Palm Oil”. In the “No Biodiesel and Palm Oil” condition, Indonesia’s trade balance has experienced a deficit in several years. Meanwhile, in the “With Biodiesel and Palm Oil” condition, Indonesia’s trade balance experiences a large surplus every year.

The description above again emphasizes that the palm oil industry has contributed greatly to improving Indonesia’s trade balance by closing the deficit and increasing the trade surplus. The role of the palm oil industry as a source of foreign exchange is not only increasingly important in maintaining the health of Indonesia’s trade balance, but is also useful for maintaining economic stability.

The trade balance surplus provides an opportunity to close the service account which is always in deficit. With a large trade surplus value, the current account balance will also enjoy a surplus. This surplus is an injection of new blood that increases the volume of the economy, creating job opportunities and increasing income (Palley, 2012; Kang, 2015; Murugesan, 2019). This surplus is very necessary in the economy amidst the current threat of slowing global economic growth.

CONCLUSION

The contribution of the palm oil industry as a source of foreign exchange can be seen through two mechanisms, namely export foreign exchange and import substitution foreign exchange. Export foreign exchange is foreign exchange resulting from the export of palm oil and its derivative products. Meanwhile, import substitution foreign exchange is foreign exchange saving due to the substitution of imported fossil diesel with domestic palm-based biodiesel.

Exports of palm oil products show an increasing trend and are becoming increasingly high quality because they are dominated by processed/downstream products with higher value added. The large amount of foreign exchange for exports of palm oil products has caused the non-oil and gas trade balance to continue to produce a large surplus. Likewise, foreign exchange saving from import substitution is getting bigger along with increasingly intensive domestic palm-based biodiesel development. This condition has implications for improving the oil and gas balance as indicated by the decreasing oil and gas deficit. The net effect of these two mechanisms further confirms that the palm oil industry has contributed greatly to improving Indonesia’s trade balance by closing the deficit and increasing the trade surplus.

ACKNOWLEDGEMENT

The authors would like to express gratitude for the financial support from the Indonesia Oil Palm Plantation Fund Management Agency (BPDPKS).

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