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A Gravity Equation for Indonesian Cocoa High Value-Added Products to Selected Middle-East Countries

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Abstract

Indonesia's export products are still dominated by raw materials and semi-finished products from the mining and agriculture sectors. Indonesia needs to expand its high-value-added products. Through the Making Indonesia 4.0 program, Indonesia makes efforts to develop its food and beverages manufacturing industry sub-sector, especially processed cocoa products. The previous papers did not research the export of Indonesian high-value-added cocoa products individually and combined with other cocoa products due to some zero-trade observations. This paper attempts to analyze the export of Indonesian cocoa products with HS code 1806 to selected Middle-east countries by utilizing an augmented gravity equation from 2011 to 2020. The Middle-east countries are chosen because some of them have high GDPs and have a long good bilateral relationship with Indonesia. Since there are some zero-trade observations, this paper applies PPML method to solve the gravity equation. Based on the result, all independent variables positively influence the export products except the economic distance. The result also reveals that the export of Indonesian 1806 products has a potency to be expanded in the Middle-east markets since there is an indicator that the supply of high-value-added cocoa products still cannot meet the markets' demand.

Keywords

Cocoa; Gravity Equation; PPML

INTRODUCTION

Exports are one of the most important economic activities for countries which adopt an open economic system. Exports provide foreign exchange revenue which can be used to pay for foreign financings such as imports and foreign debt. Therefore, new export sources must be found and developed, while existing export potentials must be continuously developed.

As a developing country, Indonesian exports are still dominated by raw materials and semi-finished products. Most of these export producst come from the mining and agriculture sectors. Indonesia requires to expand exports of higher value-added products through industrialization in its prospective sectors, especially the agriculture sectors. Moreover, to welcome the 4th Industrial Revolution, Indonesia must develop its industries so that its products can compete in the global market.

Making Indonesia 4.0

To meet the 4th Industrial Revolution challenges, the government of the Republic of Indonesia through The Ministry of Industry of the Republic of Indonesia launched the "Making Indonesia 4.0" program in 2018. Based on the program roadmap, Indonesia could become one of the ten world-biggest economies. Through the program, The Ministry of Industry proposes to revitalize and modernize the Indonesian manufacturing industry sector. Considering Indonesia has a demographic bonus, there will be a more productive population within 10–20 years later. For this reason, Making Indonesia 4.0 is expected to provide job opportunities in the manufacturing industry sector.

Making Indonesia 4.0 prioritizes manufacturing industry improvement in five sub-sectors: food & beverage, textile, automotive, electronics and chemical industries. One of the potentials in the food & beverage sub-sectors is the cocoa manufacturing industry. According to the Ministry of Industry of the Republic of Indonesia, the cocoa industry involves many small and medium enterprises which must be upgraded so they could produce more competitive high value-added cocoa products.

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Indonesian Cocoa Manufacturing Industry

Indonesia is currently the 3rd largest cocoa manufacturing country in the world Netherlands and Côte d'Ivoire. In 2018, Indonesia exported 328,329 tons of cocoa products (85% of domestic production) with a total value of up to 1.13 billion US$.

Cocoa has the 3rd largest contribution to national exports after oil palm and rubber and has the 4th largest farm area after oil palm, coconut and rubber (Maulana & Kartiasih, 2017). Based on Table 1, Indonesia is a country with the 7th largest cocoa bean production in the world with 200,000 tonnes.

The Indonesian cocoa manufacturing industry is supplied with raw materials from local farms. Therefore, to make sure that the industry is sufficiently provided with cocoa beans, the government levies a cocoa beans export tax which has been implemented since 2010 through Minister of Finance Regulation no. 67/PMK.011/2010 dated 22 March 2010 (Harsanti et al., 2014).

Cocoa High Value-Added Products

In Figure 1 it can be seen that during the 2012–2021 period, cocoa products with the highest export value in the world market were cocoa products with the HS code 1860 (cocoa and other processed food containing cocoa). In addition, the global consumption of 1806 products continues to increase and was not affected by the COVID-19 pandemic. Compared to only exporting cocoa beans, the 1806 products have a higher value-added and are more profitable. In addition, world cocoa prices are estimated to continue to rise due to increasing global demand (Fauzi & Islami, 2022).

However, based on BPS-Statistics Indonesia, Indonesian 1806 products had the second lowest export value after 1802 (shells, husks, skins and other cocoa waste) products during the 2017–2020 period. Also, the export of Indonesian 1806 products showed a positive performance that continued to increase during the period.

In 2017, Indonesia exported 15,3 thousand tons of 1806 products and reached 19.5 thousand tons in 2020. Meanwhile, Indonesia's largest processed cocoa exports in the same period were cocoa products with HS code 1804 (cocoa butter, fat and oil) which reached its highest point with total exports of 155 thousand tons in 2018. In the following year, exports of these products decreased to 145 thousand tons and 144,5 tons. The BPS data indicates that Indonesia:s 1806 products are increasingly in demand. For this reason, through the Making Indonesia 4.0 program, Indonesia requires to develop its manufacturing industry so that Indonesian 1806 products are more competitive in the international market.

Middle-East Countries

The middle-east region is well-known for oil-rich countries. However, they lack crop production differentiations so they have to import their national needs from the global market, especially cocoa products. As countries with high national income, the Middle-east markets are the potential export destination countries. Moreover, Indonesia has a special cooperation with Middle-east countries for a long time in the Organization of Islamic Cooperation (OIC) (Perwira, 2021).

There has never been a paper discussing Indonesian cocoa export to particular Middle-east countries. Most papers analyzed Indonesian cocoa export to the world market. There are some papers which discuss Indonesian cocoa products exported to particular country or countries. Anggoro & Widyastutik (2016) analyzed the influence of European countries' non-tariff barriers to Indonesian cocoa products export. Maulana & Kartiasih (2017) investigated Indonesian cocoa products export to nine primary export destination countries which none of them is a Middle-east country. Harsanti et al. (2014), Puspita et al. (2015), and Fauzi & Islami (2022) discusses the performance of Indonesian cocoa export to the United States. Hapsari & Yuniasih (2020) applied RCA, EPD, and ECM to analyze the competitiveness of Indonesian cocoa exports to Germany. Indonesian cocoa beans export to the Netherlands was researched by Aziziah & Setiawina (2021).

Therefore, this paper attempts to fill the gap with Indonesian 1806 products exported to selected Middle-east countries. The countries are Bahrain, Iran, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates (UAE).

LITERATURE REVIEW

GDP per Capita

GDP is an indicator which shows the level of prosperity of a country. GDP is commonly used in macroeconomic studies and econometric equations. GDP per capita is usually used to find out the purchasing power of people in a country. The greater GDP per

capita, the stronger people's purchasing power is. A country with high GDP per capita tends to import more goods and services (Mankiw, 2016). GDP and GDP per capita is one of the variables which is often employed in gravity equations.

The Economic Distance

Naturally, transportation costs will increase when the distance between the exporter country and the export destination is farther. Theoretically, the longer distance tends to make a country reluctant to import from its far partner country. Distance is also the main variable in gravity equations.

However, there is an elasticity transportation cost where the destination country's GDP has a role to keep importing from farther countries. Sari et al., (2014) and Wiranthi et al., (2019) proposed economic distance as follows:

$$ED_{ijt} = \frac{GD_{ij} \times GDP_{jt}}{GDPtot_t} \quad (1)$$

where:

ED_{ijt} : the economic distance between the exporter country and the export destination country in year t;

GD_{ij} : the geographical distance between the exporter country and the export destination country;

GDP_{jt} : export destination country's GDP in year t;

$GDPtot_t$: the total GDP of selected export destination countries in year t.

The Gravity Equation

The gravity equation was first introduced by Tinbergen (1962). The equation estimates a country's export performance and how much a country will be able to export to a destination country. The basic form of the gravity equation used in this paper is:

$$EX_{ijt} = \frac{GDPpC_{it} \times GDPpC_{jt}}{ED_{ijt}} \quad (2)$$

where EX_{ijt} is the export value of country i to country j in year t, $GDPpC_{it}$ and $GDPpC_{jt}$ are country i's and country j's GDP per capita in year t respectively, then ED_{ijt} is the economic distance between country i and country j in year t.

To linearize equation (1), natural logarithm transformation is used. The next step is employing a linear regression analysis to solve the equation and the regression equation becomes:

$$\ln EX_{ijt} = \beta_0 + \beta_1 \ln GDPpC_{it} + \beta_2 \ln GDPpC_{jt} - \beta_3 \ln ED_{ijt} + \varepsilon_{jt} \quad (3)$$

where $\beta_0, \beta_1, \ldots, \beta_3$ are parameter estimations and ε_t is the error term in year t. Some studies used GDP instead of GDP per capita. However, this paper use GDP per capita to avoid the multi-collinearity problem since ED_{ijt} contains the export destination country's GDP variable as shown by (1).

Many previous gravity equation studies on cocoa export modified the equation (2) by adding other macroeconomic variables such as the exchange rate (Abdullahi et al., 2021; Anggoro & Widyastutik, 2016; Larasati et al., 2022; Verter & Bečvářová, 2014), importer countrys' tariff (Anggoro & Widyastutik, 2016), world cocoa price (Verter & Bečvářová, 2014), and some dummy variables (Abdullahi et al., 2021; Larasati et al., 2022). All of those variables and some of the dummy variables significantly affect the cocoa products export. This modified version is called the augmented gravity model (Hermawan, 2011).

The Price and the Exchange Rate

The price must be agreed upon by all parties and satisfies them all. Naturally, if there is a price increase in an export product, the import demand will decrease. In the international market, price is mostly determined in US dollars. Therefore, the exchange rate of each country has an essential role to measure whether both countries are willing to trade a good or service at a particular price.

This paper utilizes the exchange rate ratio between the exporter and the export destination country which was proposed by Dinh et al. (2011). The exchange ratio is used due to some Middle-east countries adopt fixed exchange rate regimes. The ratio is determined as follows:

$$ERR_{ijt} = \frac{ER_{it}}{ER_{jt}} \quad (4)$$

where:

ERR_{ijt} : exchange rate ratio between Indonesia and the export destination country j in year t;

ER_{it} : Indonesia's average exchange rate in year t;

ER_{jt} : the export destination country's average exchange rate in year t.

Population

The population is the number of people who inhabit an export destination country. Besides GDP per Capita, the population also explains the level degree of a country's consumption. The more population in a country, the more goods or service must be provided.

Poisson Pseudo-Maximum Likelihood (PPML) Estimator

Trade with zero value occurs often since some countries do not always import from their same partner countries. In the International market, export and import flows are vey dynamic due to unpredictable factors such as political situation, global economic conditions, climate changes, domestic conflicts, people's consumption shifting, production quality and quantity from an exporter country, etc. Previous papers about cocoa export mostly avoid observations with zero trade by including the export value of other cocoa products.

According to Shepherd (2016), OLS (Ordinary Least Square) method cannot be used to estimate such cases since the value of the natural logarithm of zero is undefined. Also, dropping such observations can strongly cause sample selection bias (Martin & Pham, 2019).

To solve zero trade value problems, Poisson Pseudo-Maximum Likelihood (PPML) estimator can be employed. PPML estimator was first proposed by Santos Silva & Tenreyro (2006). PPML also has some benefits where it overcomes multi-collinearity, serial correlation, normality, and heteroscedasticity problems (Wiranthi et al., 2019). Moreover, the interpretation of independent variables estimation is as simple as OLS although the dependent variable is not in natural logarithm form (Sheperd, 2016).

Based on Abdullahi et al. (2021), the basic gravity equation of PPML can be seen as follows:

$$EX_{ijt} = \beta_0 + \beta_1 \ln GDPpC_{it} + \beta_2 \ln GDPpC_{jt} - \beta_3 \ln ED_{ijt} + \varepsilon_{jt} \quad (5)$$

The independent variables are still in natural logarithm forms to prevent large value estimations (Wiranthi et al., 2019).

RESEARCH METHODS

This paper applies an augmented gravity equation on panel data consisting of 8 selected Middle-east countries in a fixed period.

Research Sample and Period

This paper analyzes 8 Middles-countries which are Bahrain, Iran, Jordan, Kuwait, Oman, Qatar, Saudi Arabia (SA), and the United Arab Emirates (UAE) with the period from 2011 to 2020. These countries are chosen because they have imported Indonesian 1806 products almost every year compare with other Middle-east countries. In addition, some countries have no economic data available due to domestic conflict.

The main research subject is the export of Indonesian 1806 products, export destination countries' GDP per capita, Indonesia's GDP per capita, the average price of Indonesian 1806 products, Dinh's et al. (2011) exchange rate, and export destination countries' population.

The data is annual secondary data which is acquired from several sources. Indonesian 1806 export data is acquired from United Nations International Trade Statistics (UN Comtrade). GDP, GDP per capita, exchange rate, and population are from The World Bank's world Indicators dataset, and geographical distance to calculate (1) is obtained from *Centre d'Etudes Prospectives et d'Informations Internationales* (CEPII).

Data Analysis Technique

Since this paper employs the gravity model with panel data, the model can be solved by applying Ordinary Least Square (OLS) regression analysis. However, some observations have zero trade value which OLS cannot be used. Therefore, this paper utilizes the PPML estimator.

The augmented gravity equation is:

$$EX_{ijt} = \beta_0 + \beta_1 \ln GDPpC_{it} + \beta_2 \ln GDPpC_{jt} - \beta_3 \ln ED_{ijt} + \beta_4 \ln P_t + \beta_5 \ln ERR_{ijt} + \beta_6 \ln Pop_{jt} + \varepsilon_t \quad (6)$$

where:

EX_{ijt} : the export value of Indonesian 1806 products to country j in year t (US Dollars);

$GDPpC_{it}$: Indonesia's GDP per capita in year t (US Dollars);

$GDPpC_{jt}$: country j's GDP per capita in year t (US Dollars);

ED_{ijt} : economic distance between Indonesia and country j in year t;

P_t : average price of Indonesian 1806 products in year t;
ERR_{jt} : exchange rate ratio between Indonesia and country j in year t;
Pop_{jt} : country j's population in year t (people);

All computations are performed by using Stata 14.2 based on Santos Silva & Tenreyro (2015).

RESULTS AND DISCUSSION

Descriptive Statistics and Multi-collinearity

Table 2 shows the descriptive analysis which indicates the data characteristics. To perceive the multi-collinearity problem, all the independent variables are evaluated in Table 3. All independent variables have a positive correlation with export value and there is no sign of a multi-collinearity problem.

PPML Analysis

Table 4 informs results the result of PPML estimation of independent variables of Indonesia's GDP per Capita, export destination countries' GDP per capita, economic distance, Indonesian 1806 cocoa product price, exchange rate ratio, and export destination countries' population on the dependent variable of the export value Indonesian cocoa high value-added products from 2011 to 2020.

Since the equation is estimated by maximum likelihood, the appropriate statistics are z-statistics. All variables except the economic distance have a significant influence on the export value of Indonesian 1806 products.

Coefficient Determination (Adjusted R-Squared)

The adjusted R-squared is 0.4007. This means that the analysis result can describe the export value of Indonesian high-value-added cocoa products as about 40.07% while the rest 59.93% is influenced by other variables.

z-statistics

Indonesia's GDP per capita has z-statistic = 2.30 with the probability = 0.021. So, Indonesia's GDP per capita has a significant effect on the export value of Indonesian 1806 products.

The export destination country's GDP per capita has z-statistic = 2.20 with the probability = 0.028. Thus, the importer country's GDP per capita has a significant effect on the export value of Indonesian 1806 products.

The economic distance has z-statistic = –1.17 with the probability = 0.243. So, there is no sufficient evidence that the economic distance affects the export value of Indonesian 1806 products.

The average price of Indonesian 1806 products Indonesian 1806 has z-statistic = 1.82 with the probability = 0.068. So, the average price has a significant effect on the export value of Indonesian 1806 products.

The exchange rate ratio has z-statistic = 1.84 with the probability = 0.066. So the exchange rate ratio has a significant effect on the export value of Indonesian 1806 products.

The population in the export destination country variable has z-statistic = 1.73 with the probability = 0.084. So, the population has a significant effect on the export value of Indonesian 1806 products.

Effect of Indonesia's GDP per Capita

The analysis result concludes that Indonesia's GDP per capita has a positive effect on the export of Indonesian 1806 products. This finding is in line with Anggoro & Widyastutik (2016) where Indonesia's GDP per capita affected positively all products of Indonesian cocoa export. When Indonesia's GDP per capita increases by 1%, the export value of Indonesian 1806 products is estimated to increase by 6.150 US$ ceteris paribus.

Effect of the Export Destination Countries' GDP per Capita

The analysis result finds that the export destination countries' GDP per capita is the export determinant variable of Indonesian 1806 products. This finding is in line with Maulana & Kartiasih (2017) where the GDP per capita of selected 9 export destination countries have a positive effect on the export of Indonesian manufactured cocoa products. However, the result contradicts Anggoro & Widyastutik (2016) regarding the export of all cocoa products to European countries. They argued that some European countries such as the Netherlands, France, and Germany are the world's largest cocoa products producers and exporters. Their cocoa products' quality is already known as the best in the global market. In addition, those countries imposed a high tax on imported cocoa products. Therefore, when their GDP per capita rises, their domestic market and surrounding

countries tend to choose strongly their cocoa products.

Based on the result, an increase of 1% of the Middle-east country's GDP per capita will rise the export value to 2.77 US dollars ceteris paribus. This inlines with the theory that the increase in GDP per capita will drive aggregate consumption.

Effect of the Economic Distance

Although the sign of the economic distance is in line with the theory of the trade cost proxy, its effect on the export of Indonesian 1806 products is insignificant.

This finding is different from Maulana & Kartiasih (2017) where the economic distance has a positive effect on Indonesian cocoa export to European countries. The reason is the economic distance formula contains the export destination country's GDP which drives strongly the economic distance. Particularly, European countries' GDP since most of them are developed countries. Moreover, advanced technology in transportation creates trade cost replacement.

The variable is insignificant because there is a GDP large gap among Middle-east countries while they have relatively short distances. For example, Qatar's GDP was about 144 billion US dollars while Bahrain's GDP was about 34 billion dollars in 2020, but the distance between their capitals is only 139 km. Or United Arab Emirate's GDP was almost 350 billion US dollars while Oman's GDP is about 75 billion dollars in 2020, but the distance between their capitals is only 439 km. Such GDP difference cases create insignificance the economic distance variable.

Effect of the Average Price of Indonesian High Value-added Cocoa Products in the Global Market

Based on the PPML analysis result, the average price of Indonesian 1806 products is one of the export determinants. If the average price rises by 1% then the export value will increase by 2.82 US dollars ceteris paribus.

The previous papers mostly employ the world cocoa price and time-series analysis. Al Ghozy et al. (2017), Prasetyo & Mahananto (2020), and Wibowo (2017) found that the world cocoa price has a positive sign. Puspita et al. (2015) concluded that the world cocoa price also has a positive effect on the export of Indonesian cocoa products to the United States.

The positive sign indicates that the demand for 1806 products always increases, but the supply from exporter countries still cannot meet the market demands (Prasetyo & Mahananto, 2020). This also shows that the market of Indonesian 1806 products in the Middle-east countries still potential to be expanded.

However, the PPML analysis result is different from Maulana & Kartiasih (2017) in 9 selected countries. They stated that the increase in the world price will contract the export performance.

Effect of the Exchange Rate Ratio

The analysis result finds that the ratio exchange rate between Indonesia and the export destination countries has a significant influence positively on the export of Indonesian 1806 products. This means that if Rupiah depreciates 1%, there will be an increase in the export value of about 0.10 US dollars ceteris paribus. Abdullahi et al. (2021) have the same result where Nigeria's Naira depreciation will increase on Nigerian cocoa export. The depreciation creates a decrease in the price of cocoa products in the global market resulting in a demand increase.

The previous papers on the export value of Indonesian cocoa products mostly utilize the rupiah exchange rate against the US dollar. Based on Al Ghozy et al., 2017 and Anggoro & Widyastutik (2016) research, the exchange rate also has a positive effect on the world export and European countries. In contrast, the Rupiah depreciation will decrease the export of Indonesian cocoa products to the United States (Sandry & Malik, 2017).

Effect of the Export Destination Country's Population

The population of export destination countries influences the export of Indonesian 1806 products (Table 4). An increase of 1% in the Middle-east country's population will rise the export value to about 2.3 US dollars ceteris paribus.

The population of the export destination country also has a positive effect on the export of Indonesian cocoa products to Germany (Hapsari & Yuniasih, 2020) and 9 selected countries (Maulana & Kartiasih, 2017). According to economic theory, when a country's population increases, it will boost its aggregate consumption.

CONCLUSION

Cocoa products with HS code 1806 are the highest value-added products among other cocoa products in export markets. The

previous papers about the export of Indonesian cocoa products avoid Indonesian 1806 products individually and combined with other HS code products since there are some observations with zero trade.

This paper attempts to determine the variables which affect on the export value of Indonesia 1806 products to the selected Middle-east countries by applying the Gravity equation. The Middle-east countries are chosen because some of them have high GDPs and good bilateral relationships with Indonesia as one of the most populous Muslim country in the world.

The PPML estimator is applied to tackle zero-trade problems. Based on the analysis output, the independent variables which have a significant effect on the export value are Indonesia's GDP per capita, the export destination country's GDP, the average price of Indonesian 1806 products in the global market, the exchange rate ratio between Indonesia and export destination country, and the population in the export destination country. All significant variables have positive relations with the export value.

The result also reveals that the export of Indonesian 1806 products has a potency to be expanded in the Middle-east markets since there is an indicator that the supply of high-value-added cocoa products still cannot meet the markets' demand. Therefore, Indonesia through Making Indonesia 4.0 program should expand the production volume and quality of its cocoa manufacturing industry to fulfil the markets' demand.

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Table 1. Cocoa Beans Production (Thousand Tonnes)

Africa	**3,549**	**America**	**909**	**Asia & Oceania**	**283**
Cameroon	280	Brazil	201	Indonesia	200
Côte d'Ivoire	2,105	Ekuador	342	Papua Nugini	41
Ghana	771	Others	366	Others	42
Nigeria	250				
Others	143				

Source: International Cocoa Organization (ICCO)

Table 2. Descriptive Statistics

Variable	Obs	Mean	Median	Skewness	Kurtosis	St. Dev.	Min	Max
EX_{ijt}	80	664,094	411,262.5	2.253213	8.526331	937834.3	0	4986740
$\ln GDPpC_{it}$	80	8.21501	8.2	0.1715667	2.348692	0.0623469	8.1085	8.3312
$\ln GDPpC_{jt}$	80	9.904315	10.07445	-0.5421813	2.288022	0.9539062	7.9181	11.4931
$\ln ED_{ijt}$	80	6.297056	6.32375	-0.0104519	1.742749	1.058914	4.5552	8.02
$\ln P_t$	80	0.94288	0.88165	0.0815287	1.686122	0.141777	0.708	1.1442
$\ln RER_{ijt}$	80	8.085496	8.8593	-1.882408	5.193186	3.524466	-1.0881	10.771
$\ln Pop_t$	80	15.84795	15.5596	0.5487197	2.234977	1.287708	14.0078	18.2847

Source: Stata Output

Table 3. Correlation Matrix

Variable	EX_{ijt}	$\ln GDPpC_{it}$	$\ln GDPpC_{jt}$	$\ln ED_{ijt}$	$\ln P_t$	$\ln RER_{ijt}$	$\ln Pop_t$
EX_{ijt}	1.0000						
$\ln GDPpC_{it}$	0.0505	1.0000					
$\ln GDPpC_{jt}$	0.3689	-0.0505	1.0000				
$\ln ED_{ijt}$	0.3944	0.0116	0.1374	1.0000			
$\ln P_t$	0.0538	-0.7827	0.0282	-0.0080	1.0000		
$\ln RER_{ijt}$	0.0515	0.0104	0.4265	-0.5631	-0.0075	1.0000	
$\ln Pop_t$	0.0718	0.0393	-0.5757	0.7268	-0.0303	-0.7725	1.0000

Source: Stata Output

Table 4. PPML Analysis Result

Variable	Coefficient	Robust Standard Error	z	Probability
Constant	-95.40183	39.40543	-2.42	0.015**
$\ln GDPpC_{it}$	6.150264	2.67479	2.30	0.021**
$\ln GDPpC_{jt}$	2.770727	1.258077	2.20	0.028**
$\ln ED_{ijt}$	-1.525995	1.306002	-1.17	0.243
$\ln P_t$	2.817606	1.545337	1.82	0.068*
$\ln RER_{ijt}$	0.1018453	0.0553062	1.84	0.066*
$\ln Pop_t$	2.302279	1.331506	1.73	0.084*
R-squared	0.40074245			
Pseudo log-likelihood	-21,105,144			

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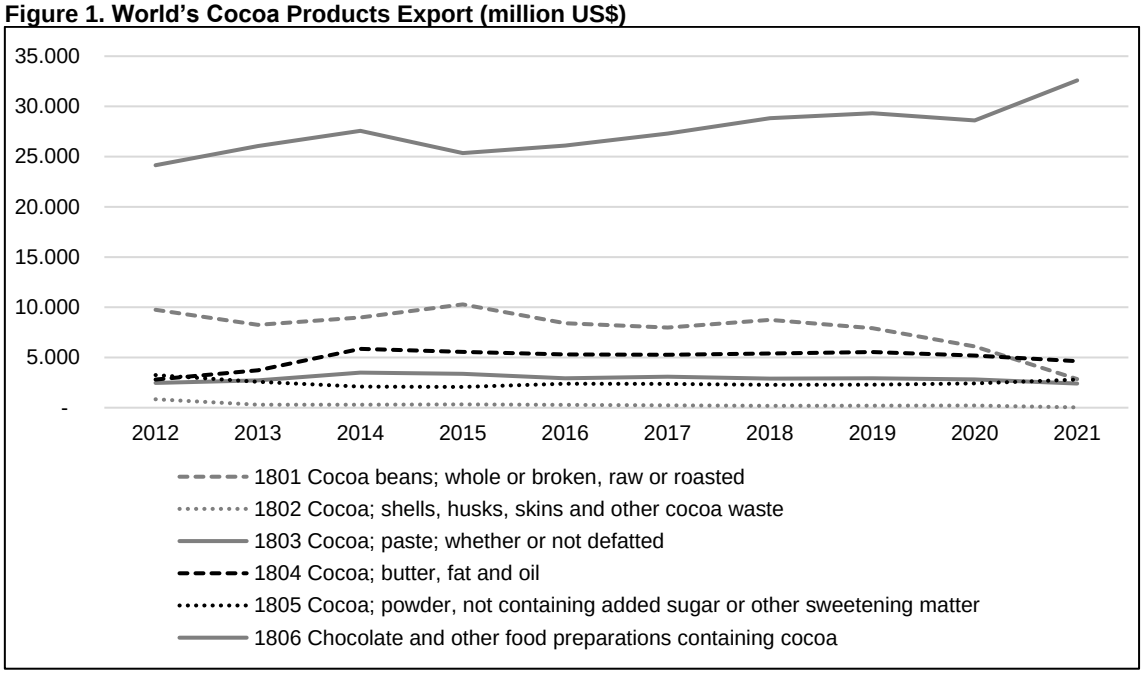
Figure 1. World's Cocoa Products Export (million US$)



Source: International Trade Centre