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The Effect of Production and Macroeconomic Variables on Indonesia's Shrimp Exports

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ABSTRACT
The aim of this research is to analyze the influence of changes in world shrimp prices, changes in the dollar exchange rate against the rupiah, changes in International Gross Domestic Product, and changes in inflation on changes in shrimp exports. The model in this research uses Error Correction Model (ECM) regression. The ECM model is the most suitable model to use in analyzing export behavior in Indonesia. This research uses time series data from 1990 to 2022. The results of this research show that changes in world shrimp production and changes in inflation have a positive and significant effect on changes in Indonesian shrimp exports in the short term. Meanwhile, changes in world shrimp prices have no effect on changes in shrimp exports, changes in international GDP have a negative effect and changes in exchange rates have no effect on changes in Indonesian shrimp exports. In the long term, it shows that changes in world shrimp production, changes in world shrimp prices, changes in Indonesian inflation have a positive influence on changes in Indonesian shrimp exports, while changes in international GDP have a negative influence on changes in Indonesian shrimp exports. Because changes in inflation and changes in shrimp prices have a negative impact on changes in shrimp exports, the government should pay attention to simple shrimp cultivation techniques that benefit shrimp farmers, thereby increasing the competitiveness of shrimp exports in the international market.

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INTRODUCTION

Indonesia is an archipelagic country that has abundant marine resource potential. Indonesian waters contain abundant biological resources. Indonesia has various types of fish with all their advantages. Not only fish, but there are also various types of marine animals found in Indonesian waters. Shrimp, cuttlefish, squid, and crabs are some of the marine animals that people often consume. The large number of marine animals in Indonesia makes fish and other marine animals one of the export commodities that is very reliable in increasing state income. Indonesian fishery product export commodities include shrimp, tuna, grouper, mackerel, snapper, small crab, crab, seaweed, sea cucumber and lobster. Commodities are processed into fishery products in the form of final products that are ready for export. Some

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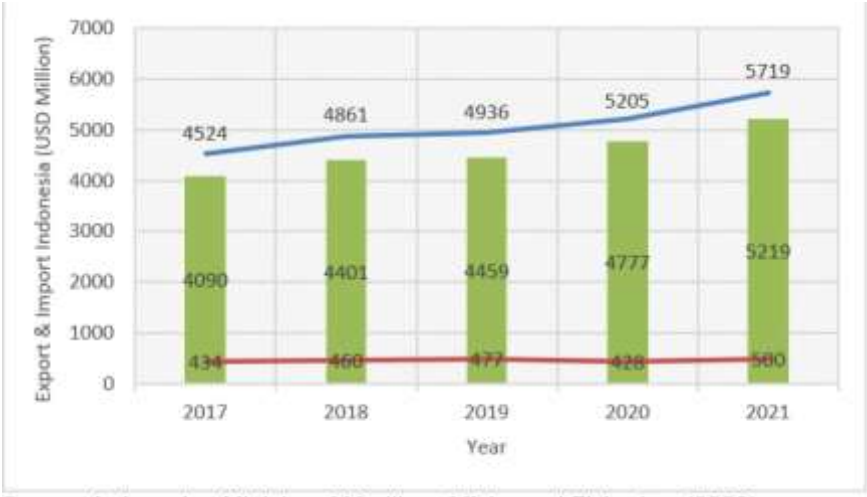
fishery products in Indonesia are consumed by the public and some are exported. Fisheries are an economic indicator in coastal areas and in maritime countries, including Indonesia. In the fisheries sector, Indonesia has several export commodities such as shrimp, fish, squid, seaweed, and crabs. In 2021, the trade balance surplus for Indonesian fishery products will reach USD 5,719 billion (see Figure 1). The results achieved in 2021 were the highest surplus from 2017-2021, while in 2017 the lowest was an increase in surplus of USD 4.091 billion. Indonesia's trade balance over a period of 5 years, from 2017-2021, increased by 6.32% per year.



Source: Indonesian Ministry of Maritime Affairs and Fisheries, (2023)

Figure 1 Fishery Products Trade Balance for 2017-2021

In the fisheries sector, Indonesia has several export commodities such as shrimp, fish, squid, seaweed, and crabs. In 2021, the trade balance surplus for Indonesian fishery products will reach USD 5.219 billion. The results achieved in 2021 were the highest surplus from 2017-2021, while in 2017 the lowest was an increase in surplus of USD 4.091 billion. Indonesia's trade balance over a period of 5 years, from 2017-2021, increased by 6.32% per year. Most developing countries really need foreign exchange to increase domestic savings to finance their country's development projects (Todaro & Smith, 2020), one of which is through the export of agricultural products. From a macroeconomic perspective, there are several factors that influence shrimp exports in Indonesia. The first factor is the destination country's GDP. An increase in national income (GDP) will also increase people's purchasing power to increase import activities and on the other hand, an increase in national income will also affect people's ability to increase production so that it can be exported to other countries (Azizah, 2015; and Aydin & Sari, 2014). Apart from GDP, the exchange rate also influences exports (Stephen, 2017). When a country's exchange rate depreciates, people in other countries receive cheaper prices for exported goods, while domestic people receive more expensive prices for imported goods. However, when a country's currency appreciates, people from other countries will pay more for export goods, while domestic citizens will pay less for imported goods. Apart from the macroeconomic perspective, it can also be

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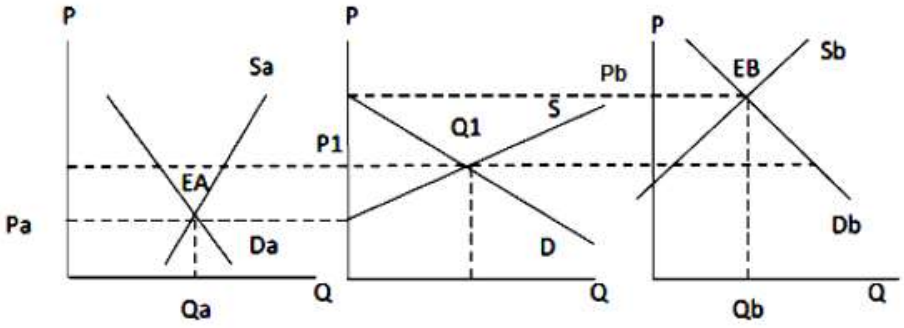
seen from the influence of shrimp exports on the microeconomic side. Based on the results of the study above, it is necessary to study the relationship between shrimp production, shrimp prices, the US dollar exchange rate, international income, and inflation on Indonesian exports, using a dynamic model approach.

In formulating a simple model of international trade according to Salvatore (2019) as follows:



Source: Salvatore, 2019

Figure 2 explains the existence of international export-import trade between countries.

In international trade between countries there is a relative balance of commodity prices. International trade can occur because there is excess supply from exporting countries and excess demand from importing countries. The exporting country has a commodity price of Pa, and the importing country has a commodity price of Pb, cateris paribus. The price of the exporting country will be lower in the international market, resulting in excess supply. Meanwhile, the price of the importing country is higher in the international market, resulting in excess demand. Excess demand and supply will create an equilibrium price of P1 which is used in the international trade market. One assumption is that international trade is a result of interaction with other countries, resulting in proportional supply and demand. Demand is supply are widely known as the interaction of production possibilities with consumer preferences (Kindleberger, 1995). International trade can also increase industrialization, progress in the transportation sector, globalization, and the presence of multinational companies (Ekananda, 2014). Research relating production to exports was carried out by Maiti, et al (2013) which stated that increasing production caused a decrease in export efficiency, while research conducted by Angles, et al. (2011) and Mukhametzyanov (2022) state that production has an influence on exports. The relationship between prices and commodity exports was carried out by Kannan (2013) who stated that world market prices and domestic prices have a significant effect on exports. Research conducted by Akalpler (2013) states that neither higher inflation rates nor lower inflation rates between 2000 and 2010 made a significant contribution to increasing trade capacity. Meanwhile, research conducted by Purusa & Istiqomah (2018), Okpe & Ikpesu (2021), and Mwakanemela (2014) states that inflation has a negative and significant effect on exports. Research conducted by Malau (2016) stated that inflation and the exchange rate had no influence on exports be-

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fore and after the implementation of free trade. Research on the exchange rate on exports was conducted by Stephen (2017) who stated that there is no relationship between the exchange rate and exports in the long term. Meanwhile, research by Ahmad, et al. (2017) shows that the exchange rate has a negative but insignificant effect on Pakistan's exports, while world income has a positive and significant effect on exports. Research conducted by Palazzo, & Rapetti (2017) shows that a stable exchange rate policy played an important role in the surge in exports in Argentina during 2002–208. Other researchers Nguyen & Do (2020) state that exchange rate volatility has an influence on external trade in the long term but has no effect in the short term. This is different from research conducted by Sweidan (2013) which states that the influence of the Jordanian exchange rate on exports and imports is only active in the short term.

METHODS

The method in this research uses the Error Correction Model (ECM). The ECM model is an econometric tool used to describe the identification of long-term and short-term relationships in the presence of statonarity in the combination of research variables. The ECM model has gone through a data linearity test, degree of integration test, Engle-Granger (EG) test, cointegration and is free from all testing feelings, so that the ECM model is suitable for use and analysis. When conducting research using the ECM method, you must meet the following requirements: 1. Data that is not stationary at level I (0). 2. Stationary data is found in first difference or degree of integration one I (1). 3. There is an impact of cointegration (long term) between variables to explain whether the data used meets the requirements, several tests can be carried out; One of the test tools that must be carried out before using the ECM method is to test the stationary time series data using the unit root test. If the time series data is not stationary, then the resulting data faces a unit root problem situation. With the unit root problem, it can be seen by comparing the t-statistic value from the regression with the Augment Dickey Fuller test value. With the following equation model:

$$\Delta Export_t = \alpha_o + \alpha_1 SProd_t + \alpha SPrice_{2t} + \alpha_3 ER_t + \alpha_4 GDPI_t + \alpha_5 INF_t \quad \text{.....(1)}$$

Information:

$Export_s$	= Number of Shrimp Exports in time t
$Sprod_t$	= Total Shrimp Production in time t
$Sprice_t$	= Total World Shrimp Prices in period t
ER_t	= Total Rupiah Exchange Rate (Exchange Rate) in period t
$GDPI_t$	= Total International Gross Domestic Product
INF_t	= Indonesian inflation in period t

The stages in carrying out the ECM model regression are as follows: At the beginning of the test, a unit root test is carried out with time series data for level data. If all the data has not passed the stationary test at the data level, then the next step is to test the data with a first difference data integration degree test. The integration degree test can be carried out as follows:

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$\Delta Exportt = \beta 1 + \delta Exportt\text{-}1 + \alpha i\ t\text{-}1 + et$ ..... (2)

$\Delta Export_t = \beta\ 1 + \beta\ 2\ T + \delta Export_{t-1} + \alpha i_{\ t-1} + et$ ..... (3)

To find out whether stationary has occurred, the results of t-statistic values (2) and (3) must be compared with the t-statistic values in the DF table. If the value of δ in both equations is equal to one (see table DF), then the Export variable will be stationary at degree one or can be symbolized by Export ~I (1). However, if the value of δ is not equal to the value 0, then the Export variable cannot be said to pass stationary in the first degree of integration. Next, further testing was carried out by testing the degree of integration of the two until data results for the stationary ΔExportt variable were obtained. After passing the stationary test stage, then carry out a cointegration test. The cointegration tests that are often used are the Engle-Granger (EG) test, the augmented Engle-Granger (AEG) test and the Durbin-Watson cointegration regression test (CRDW). To obtain the results of the EG, AEG and CRDW values, the data that will be used in this research must be integrated to the same degree. For OLS testing with the ECM model, the following equation is used:

$\Delta Ekspor_t = \alpha_o + \alpha_1\ Pud_t + \alpha Hud_{2t} + \alpha_3\ Kurs_t + \alpha_4 GDP_t + \alpha_5 Inf_t$..... (4)

From the equation above, the residual results (error terms) are obtained. And the next step is to estimate the autoregressive equation model from the residual results with the following equations:

$\Delta \mu t = \lambda \mu t\text{-}1$ ..... (5)

$\Delta \mu t = \lambda \mu t\text{-}1 + \alpha i\ t\text{-}1$ ..... (6)

With the results of the hypothesis test if:

H0: μ = I (1), meaning there is no cointegration

Ha: μ # I (1), meaning there is cointegration

Based on the OLS regression results, equation (4) can produce a calculated CRDW value (DW value in the equation) which can then be compared with the CRDW table. Equations (5) and (6) can produce calculated EG and AEG values which can then be compared with the table DF and ADF values.

RESULTS AND DISCUSSION

The first step before carrying out an Error Correction Model (ECM) model regression is to carry out a stationarity test throughout the data. To find out whether a variable is stationary or not, Augmented Dickey Fuller (ADF) is carried out. This first test is used to find out whether the variables used are stationary at level data or first difference data, if the data is not stationary it will result in false regression or what is called presumptive regression (Basuki & Yuliadi, 2015). If the data used in this research is not stationary, it will result in the data having a unit root problem. The stationary test is carried out by comparing the t-statistical value of the regression results with Augmented Dickey Fuller (ADF), the results can be seen as follows:

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Table 1 Unit Root Test Results

Variable	Unit Root Test			
	Level		1st Difference	
	ADF	Prob.	ADF	Prob.
Export	2.044133	0.9998	-7.096895	0.0000
SProd	3.191160	1.0000	-3.268175	0.0257
SPrice	-2.385170	0.1539	-7.785340	0.0000
GDP Internasional	0.750353	0.9914	-4.579056	0.0010
ER	-1.191249	0.6654	-6.593246	0.0000
INF	-5.479261	0.0001	-11.39401	0.0000

Source: Data processed, 2023.

It can be seen from the table above that almost all variables except inflation at the test level have a probability of > 0.05 and it can be said that at this level they do not pass and are not stationary, because the benchmark for passing and stationary is that the probability must be < 0.05. Therefore, it is necessary to have a unit root test at the 1st difference level and it can be seen in the table that all variables at the 1st difference level have a probability value of <0.05. In the 1st difference level unit root test, all variables pass and are stationary. After the stationary test, followed by the Engle Grager Cointegration test, the results can be seen in Table 3. Table 2 shows the relationship between the results of the long-term regression between world prices, world production, international GDP, exchange rates and inflation (independent variables) on the volume of coconut exports (dependent variable). Long-term estimates have variables that have a significant influence on Indonesian shrimp exports, including world shrimp production, world shrimp prices, international GDP, and inflation. Meanwhile, the exchange rate variable does not have a significant effect. In the table the Adjusted R-Squared determination is 0.895101 with the coefficient value showing that the independent variable influences the dependent variable by 89.51%. The remaining 10.49% can be influenced by other variables not included in the research.

Table 2 Long Term Estimation Results

Variable	Coefficient	Prob.
C	11.98629	0.0000
SProd	1.599571	0.0000
SPrice	0.370669	0.0028
GDP Internasional	-1.556676	0.0000
ER	-0.006769	0.8886
INF	0.003379	0.0261
R- squared	0.912020	
Adjusted R- squared	0.895101	
F- statistic	53.90431	
Prob (F- statistic)	0.000000	

Source: Processed data, 2023.

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Data cointegration tests are needed to be able to show initial indications of the long-term relationship contained in the model. The regression residuals are stationary or cannot be tested using this cointegration test. The results of data cointegration analysis can use the residual formation method by regressing the independent and dependent variables via OLS (Ordinary Least Square). After producing the cointegration regression equation via OLS, you can then calculate the ADF value. Tests using the Augment Dickey Fulley Unit Root Test can be seen in Table 3.

Table 3 Data Cointegration Test Results

Variable	Prob.	Information
ECT	0.0024	Cointegration

Source: Processed data, 2023.

It can be seen from Table 3 above, the probability value obtained by ECT is 0.0024, showing that the variables of world shrimp prices, world shrimp production, international GDP, exchange rates and inflation are cointegrated because the probability value is smaller than 0.05 or 5% or the value critical. So, the testing can be continued with the short-term estimation stage. A good and valid Error Correction Model (ECM) must have a significant ECT, used to measure the regressand response where balance deviations occur in each period. In this research, the ECM model can be seen in Table 4. In Table 4, the probability value (F-statistic) has a value below 0.05, namely 0.000003. For the ECT value (-1) in the cointegration test the data proves valid and has a significant influence on the short and long term in this ECM model. In the table the Adjusted R-Squared determination is 0.689796 with the coefficient value showing that the independent variable influences the dependent variable by 68.97%. The remaining 31.03% can be influenced by other variables not included in the research. The ECT coefficient value of -0.640822 can be interpreted as meaning that there is a difference in the Indonesian shrimp export variable with a balance of -0. 640822 will then be adjusted over a period of 1 year (Basuki and Yuliadi, 2015).

Table 4 Short Term Estimation Results

Variable	Coefficient	Prob
c	0.032408	0.1458
SProd	0.659839	0.0112
SPrice	0.206666	0.0699
GDP Internasional	-0.752673	0.0207
ER	-0.136349	0.1516
INF	0.004666	0.0000
ECT (-1)	-0.640822	0.0008
R-squared	0.751837	
Adjusted R-Squared	0.689796	
F-statistic	12.11843	
Prob (F-statistic)	0.000003	

Source: Processed data, 2023.

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In the classical assumption test, this is needed to produce regression and the data can be accounted for. The classical assumption test includes stages of multicollinearity, heteroscedasticity, autocorrelation, normalization, and linearity. To find out whether the distribution is normal or not, you can use Jarque-Berra. In Jarque Berra (JB) if the probability value is greater than 0.05 it is concluded that the residuals can be normally distributed. On the other hand, if it is not normally distributed, the probability value is smaller than 0.05.

Table 5 Normality Test Results

Jarque-Berra	Prob.	Information
0.664964	0.717142	Normality

Source: Processed data, 2023.

It can be seen from the table above; the normality test results where the probability is 0.717142 which is greater than the degree of error α = 5% (0.05). From these results it can be concluded that the data contained in the model has a normal distribution. The regression model is concluded to contain heteroscedasticity if the model residuals appear to have variances that are not constant with each other. If they are constant with each other, it is called homoscedasticity. The heteroscedasticity test can be tested using the white heteroscedasticity test technique, as follows: It can be seen in the table that the heteroscedasticity test results are known to have an OBS*R-squared value of 7.054790 and a probability value of 0.7874, where this value is greater than α = 0.05. It is known that these results can be said that the research model does not contain heteroscedasticity problems.

Table 6 Heteoscedasticity Test Results

Test Breusch Pagan Godfrey			
F-statistic	1.178489	Prob. F (6,24)	0.3505
OBS*R-squared	7.054790	Prob. Chi-squared (6)	0.7874

Source: Processed data, 2023.

To determine whether there is autocorrelation or not in the model, research can use the Laagrange Multiplier (LM) test. In the LM test there is a procedure if the Obs*R-Squared value is smaller than 0.05 it can be concluded that the model does not have autocorrelation. It can also be done through the Chi-Square probability value, if the probability value has a value greater than α then the model does not have an autocorrelation problem.

Table 7 Autocorrelation Test Results

Test Breusch Pagan Godfrey			
F-statistic	1.278831	Prob. F (2,22)	0.2983
OBS*R-squared	3.228626	Prob. Chi-squared (2)	0.1990

Source: Processed data, 2023.

It can be seen from the table above, the results of the autocorrelation test show an OBS*R-squared value of 3.228626 with a probability value of 0.1990, where this value is greater than α = 5% (0.05). So, from these results it can be concluded that the data model in the research does not have an autocorrelation problem. The regression model gets better when the correlation between

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independent variables becomes smaller. Multicollinearity testing with the following results: It can be seen from the table above; the test results show that the analysis data in the research did not have multicollinearity problems. With a Centered VIF value < 10 found in the variables, namely world shrimp production (1.375978), world shrimp prices (1.356488), International GDP (1.601566), Exchange Rates (1.745580), and Inflation (1.475479). Based on the results of the regression analysis in the research, long-term world shrimp production has a coefficient value of 1.599571 and a significance value of 0.0000. Meanwhile, in the short term, world shrimp production gets a coefficient value of 0.659839 and a significance of 0.0112. Long-term and short-term results can show that the coefficient value is positive and significant for Indonesian shrimp exports. Changes in world production, both long and short term, have a positive influence on Indonesian shrimp exports. These results are in resultsance with economic theory which states that the consequences of increased production result in increased demand for goods, and result in increased exports of goods, with the assumption that other variables are considered constant (cateris paribus).

Table 8 Multicollinearity Test Results

Variable	Coefficient Variable	Uncentered VIF	Centered VIF
C	0.000465	3.268723	NA
Export	0.057646	2.865715	1.375978
SProd	0.011863	1.361421	1.356488
SPrice	0.092295	3.009805	1.601566
GDP Internasional	0.008476	1.997655	1.745580
ER	6.06E-07	1.475739	1.475479
ECT (-1)	0.027959	1.183350	1.179038

Source: Processed data, 2023.

The results obtained can be used as input for government policies regarding shrimp production to be able to cultivate and develop shrimp in quantity and quality. One of the programs planned by the Ministry of Maritime Affairs and Fisheries is the development of fisheries cultivation using an export basis with one of the commodities being shrimp. The results of this research are in accordance with previous research conducted by Siburian and Hidayat (2014) which stated that production has a positive and significant effect on exports. High production will increase the supply of these goods so that export demand will increase and vice versa. The increasing world shrimp production will cause demand for shrimp to also increase so that the volume of shrimp exports also increases. The long-term relationship between world shrimp prices has a positive and significant influence, which means that in the long term, if there is a 1% increase in shrimp prices, the volume of Indonesian shrimp exports will increase. Long-term results do not match the theory of factors that can influence exports. The high market demand for shrimp causes producers to increase their products to the market. Research by Anindita & Syaputra (2017) states that the rise and fall of commodity prices will cause rises and falls in the quantity of goods offered.

In short-term relationships it has a positive but not significant influence. In the short term, it is not significant because the Indonesian shrimp export system in several countries more often uses a Memorandum of Understanding or cooperation contract where one of the contents is that the price is determined according to the contract by looking at the exchange rate of the producer's currency with the US dollar. In this contract, using prices according to the contract means that the applicable world shrimp prices are rarely used. This

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means that the impact on world shrimp prices in the short term is not significant. In previous research conducted by Mohani, et al. (2016) in their research international shrimp prices have a positive and significant influence. Shrimp experienced an increase in world prices after the global economic crisis in 2008. In 2013 there was an outbreak of EMS disease in shrimp in the main producing countries, namely China and Thailand, which caused concerns about the quality of these countries' shrimp products. One of the shrimps producing countries in the world that is said to not be infected by the disease is Indonesia. With this claim, importers give confidence to Indonesia to import shrimp from Indonesia. This is one of the reasons why the volume of Indonesian shrimp exports is increasing even though world shrimp prices are high.

The short-term and long-term results of International GDP in research have differences with the theory that has been formulated. In this research, the short term has a significant and negative influence on Indonesian shrimp exports. These results can be influenced by factors such as in the short term and in recent years importing countries have had uncertain domestic conditions. Uncertainties such as slow GDP growth in recent years, falling public demand for shrimp, or the country starting to be able to meet its domestic needs. Previous research conducted by Sukadana & Wiharani (2019) in their research results showed that the GDP of importing countries had a negative and significant influence. The research explains that increasing population income can reduce demand for Indonesian shrimp. In demand theory, for this situation Indonesian shrimp products are used as inferior goods. This situation can lead to an identification that Indonesian shrimp are easily substituted for competing shrimp. Competing countries can increase shrimp production and quality so that importers choose competing shrimp over Indonesian shrimp. In this research, an increase in the exchange rate causes a decrease in the volume of Indonesian shrimp exports.

Previous research that is like the situation in this research is Thuy & Thuy (2019), where it is stated that domestic economic depression can have a negative influence on the dollar exchange rate on the volume of domestic exports. A high inflation rate in a country can have an impact on the price of domestically produced goods being high, making these goods less competitive in international markets related to exchange rates (Pratama & Bendesa, 2015). The depreciation of the Rupiah against foreign currencies causes the price of imported goods to become expensive. Due to the relationship between the exchange rate and exports, the government should maintain the exchange rate at reasonable limits. The results of short- and long-term exchange rates do not have a significant effect on Indonesian shrimp exports. The United States is the dominant country that exports shrimp from Indonesia and does not care about the exchange rate, so that rising or falling dollar exchange rates will not affect the purchasing power of shrimp commodities.

According to the Indonesian Shrimp Forum, almost 65% of the volume of Indonesian shrimp exports is purchased by the United States. The increase in the decline in exports is influenced by factors, one of which is consumer tastes for manufactured goods. The results of previous research conducted by Thuy & Thuy (2019) and Kang & Dagli (2018) show that the exchange rate does not have a significant effect on exports. The results of the research

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identify those changes in inflation, up and down, will affect the volume of Indonesian shrimp exports, both long and short term. In accordance with the results of previous research conducted by Putri and Suhadak (2016), their research showed that inflation had a positive and significant influence on exports. In economics, there is a theory that an increase in prices can cause the country's goods to be unable to compete in the international market, which will cause exports to decrease. On the other hand, if the price of domestic goods increases, it will lead to an increase in imported goods.

CONCLUSION

World Shrimp Production has a positive and significant relationship to shrimp exports in the short and long term. More world shrimp production will have an impact on Indonesian shrimp production and will ultimately increase exports. Meanwhile, World Shrimp Prices have a positive but not significant effect on Indonesian shrimp exports in the short term, while in the long-term shrimp prices have a positive and significant effect on Indonesian shrimp exports. International GDP has a negative influence on Indonesian shrimp exports both in the short and long term. The US dollar exchange rate against the rupiah has no influence on Indonesian shrimp exports either in the short term or in the long term. This shows that Indonesian shrimp exports abroad are valued in US dollars, and the price of shrimp valued in US dollars has not changed much. Another factor that influences changes in Indonesian shrimp exports is changes in the domestic inflation rate. Inflation has a positive and significant influence on Indonesian shrimp exports abroad, both in the short and long term. Increasing inflation will encourage Indonesian shrimp exports to other countries. The government and related agencies are very much needed to build good cooperation to pay attention to and help increase domestic shrimp production and improve the quality of Indonesian shrimp. To smooth the flow of Indonesian shrimp trade, the government must control the dollar exchange rate against the rupiah and keep the inflation rate stable so that the production and export value of Indonesian shrimp can be optimized.

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REFERENCE

Ahmed, K., Qasim, M., & Chani, M. I. (2017). Impact of Exchange rate on Exports in Case of Pakistan. *Bulletin of Business and Economics (BBE)*, *6*(2), 98-102.

Akalpler, E. (2013). Does inflation increase the export? Case study Turkey. *Theoretical and Practical Research in Economic Fields (TPREF)*, *4*(08), 123-136.

Angles, S., Sundar, A., & Chinnadurai, M. (2011). Impact of globalization on production and export of turmeric in India–An economic analysis. *Agricultural Economics Research Review*, *24*(347-2016-16971), 301-308.

Anindita, T., & Syaputra, A. A. (2017). Analisis Pengaruh Kurs USD, Harga Batubara Acuan, dan Volume Produksi terhadap Volume Ekspor Pada PT Bukit Asam Persero (TBK). *Jurnal Manajemen Industri dan Logistik*, *1*(2), 31.

Aydin, M., & Sari, M. (2014). Relationship between GDP and export in Turkey. *Annals-Economy Series*, 282-288.

Azizah, N. (2015). Analisis ekspor crude palm oil (CPO) Indonesia di Uni Eropa tahun 2000-2011. *Economics Development Analysis Journal*, *4*(3), 301-307.

Basuki, A. T., & Yuliadi, I. (2015). Ekonometrika Teori & Aplikasi. *Yogyakarta: Mitra Pustaka Nurani*.

Ekananda, M., & Parlinggoman, D. J. (2017). The role of high-tech exports and of foreign direct investments (FDI) in economic growth.

Kang, J. W., & Dagli, S. (2018). International trade and exchange rates. *Journal of Applied Economics*, *21*(1), 84-105.

Kannan, M. (2013). The determinants of production and export of natural rubber in India. *IOSR Journal of Economics and Finance*, *1*(5), 41-45.

Kindleberger, C. P. (1995). *The world economy and national finance in historical perspective*. University of Michigan Press.

Maiti, K., Charette, M. A., Buesseler, K. O., & Kahru, M. (2013). An inverse relationship between production and export efficiency in the Southern Ocean. *Geophysical Research Letters*, *40*(8), 1557-1561.

Malau, H. (2016, January). Exchange Rate, Inflation and Export-Import Indonesia And China (Comparative Analysis Before And After Free Trade). In *Journal of International Scholars Conference-BUSINESS & GOVERNANCE* (Vol. 1, No. 3).

Mohani, V. C., Yulianto, E., & Mawardi, M. K. (2016). Pengaruh jumlah produksi udang Indonesia, harga udang internasional, dan nilai tukar rupiah terhadap ekspor udang Indonesia (Studi volume ekspor udang Indonesia tahun 2005-2014). *Jurnal Administrasi Bisnis (JAB)*, *39*(2).

Mukhametzyanov, R. R., Zaretskaya, A. S., Dzhancharova, G. K., Platonovskiy, N. G., & Arzamastseva, N. V. (2022, February). Production and Export Potential of the Grain Sub-Complex of the EAEU Countries. In *International Scientific and Practical Conference Strategy of Development of Regional Ecosystems "Education-Science-Industry" (ISPCR 2021)* (pp. 324-330). Atlantis Press.

Mwakanemela, K. (2014). Impact of FDI inflows, trade openness and inflation on the manufacturing export performance of Tanzania: An econometric study. *International Journal of Academic Research in Economics and Management Sciences*, *3*(5), 151.

Nguyen, V. C., & Do, T. T. (2020). Impact of exchange rate shocks, inward FDI and import on export performance: a cointegration analysis. *The Journal of Asian Finance, Economics and Business*, *7*(4), 163-171.

Okpe, A. E., & Ikpesu, F. (2021). Effect of Inflation on Food Imports and Exports. *The Journal of Developing Areas, 55(4), 1-10.*

Palazzo, G., & Rapetti, M. (2017). Real exchange rate and export performance in Argentina, 2002–2008. *Journal of post Keynesian economics*, *40*(1), 75-94.

Pratama, I. M. D., & Bendesa, I. K. (2015). Analisis Faktor–Faktor yang Mempengaruhi Nilai Ekspor Kerajinan Kerang di Provinsi Bali. *Jurnal Ekonomi Pembangunan Universitas Udayana*, *4*(4), 313-325.

Purusa, N. A., & Istiqomah, N. (2018). Impact of FDI, COP, and inflation to export in five asean countries. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi dan Pembangunan*, *19*(1), 94-101.

Putri, R. F. A., & Suhadak, S. S. (2016). Pengaruh inflasi dan nilai tukar terhadap ekspor indonesia komoditi tekstil dan elektronika ke Korea Selatan (Studi Sebelum dan Setelah ASEAN Korea Free Trade Agreement Tahun 2011). *Jurnal Administrasi Bisnis (JAB)*, *35*(1).

Salvatore, D. (2019). *International economics*. John Wiley & Sons.

Siburian, D., & Hidayat, K. (2014). *Pengaruh Harga Gula Internasional dan Produksi Gula Domestik Terhadap Volume Ekspor Gula di Indonesia (Studi pada Volume Ekspor Gula di Indonesia Periode Tahun 2010-2012)*. Brawijaya University.

Stephen, A. G. (2017). Econometric analysis of exchange rate and export performance in a developing economy. *Asian Economic and Financial Review*, *7*(4), 334.

Sweidan, O. D. (2013). The effect of exchange rate on exports and imports: The case of Jordan. *The International Trade Journal*, *27*(2), 156-172.

Thuy, V. N. T., & Thuy, D. T. T. (2019). The impact of exchange rate volatility on exports in Vietnam: A bounds testing approach. *Journal of Risk and Financial Management*, *12*(1), 6.

Todaro, M. P., & Smith, S. C. (2020). *Economic development*. Pearson UK.

Wiharani, I. G. A. D., & Sukadana, I. W. (2019). Pengaruh GDP, Harga Ekspor, Kurs Dollar terhadap Volume Ekspor Udang Indonesia ke Amerika Serikat tahun 1990-2019. *E-Jurnal EP Unud*, *10*(2), 28-35.