The Effect of Coffee Commodity Export Performance on The Welfare of Coffee Farmers in Indonesia

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Abstract. Coffee is an important type of beverage for most of the people around the arena. not most effective due to the entertainment of espresso drinkers, however additionally because of the financial fee for countries that produce and export coffee beans. Indonesia is one of the largest espressos generating and exporting nations in the global. In terms of agricultural commodities, espresso is the fourth largest forex earner for Indonesia after palm oil, rubber and cocoa. those export sports will have an effect at the improvement and development of the u . s . a .'s economy and the welfare of the human beings, particularly the welfare of coffee farmers. The purpose of this looks at became to investigate the effect of coffee export overall performance on the welfare of espresso farmers. The approach used is the error Correction version (ECM). The consequences showed that coffee export overall performance had a superb and large impact at the welfare of coffee farmers in both the fast-term and long-time period estimates.

Keywords: export; coffee; welfare

1 Introduction

Indonesia is one of the most important espresso generating and exporting international locations in the world. most of its production is the lower satisfactory robusta range. Indonesia is likewise famous for having a number of specialty coffees consisting of 'espresso luwak' (known as the maximum luxurious espresso inside the world) and 'espresso Mandailing'. In phrases of agricultural commodities, coffee is the fourth biggest foreign exchange earner for Indonesia after palm oil, rubber and cocoa.

Currently, Indonesia's coffee plantations cover a complete area of approximately 1.24 million hectares, 933 hectares of robusta plantations and 307 hectares of arabica plantations. extra than ninety% of the total plantations are cultivated by means of small-scale farmers who own enormously small plantations of approximately 1-2 hectares, every. In evaluation to competition such as Vietnam, Indonesia does no longer have large espresso plantations and consequently unearths it greater difficult to maintain solid production volumes and fine, so that the competitiveness of Indonesian coffee in the global market is much less sturdy [1]

The volume of coffee exports within the closing ten years tends to vary, ranging from (-) forty.15 percentage to 12. eighty two percent. In 2011 the entire export extent reached 346.forty-nine thousand lots, growing to 379.35 thousand in 2020. In contrast to the export quantity, the whole export price tends to lower, in 2011 the entire cost people\$ 1 036. sixty-seven million decreased to US\$ \$821.93 million. Indonesia's coffee exports in 1980 amounted to 238.68

thousand tons with an export cost of USD 656.01 million and improved in 2019 to 359.05 thousand lots or really worth USD 883.12 million. the highest decline in Indonesia's coffee export quantity came about in 2018 via forty.15% or reached 187.83 thousand tons, in 2017 it reached 467.seventy-nine thousand lots to 279.96 thousand lots in 2018. This resulted within the value of Indonesia's coffee exports additionally reduced with the aid of 31.10% or reached an export price of USD 369.10 million [2]

Through increasing the plantation place, Indonesia's espresso manufacturing within the subsequent 10 years is focused to attain among 900 thousand tons to one.2 million lots in keeping with yr. that is because of increasing global and home call for, requiring funding in the United States of America's coffee area. aside from increasing the amount of espresso beans, best is also predicted to increase due to technological improvements. however, Indonesia's espresso manufacturing per hectare is still low compared to other foremost espresso-generating international locations [3]

The numerous factors that affect the performance of Indonesian espresso exports, of path those export activities will have an effect at the improvement and improvement of the USA's economy and the welfare of the people. From the factor of welfare, espresso exports will enhance the welfare of coffee farmers. Farmers' welfare indicators are measured with the aid of looking at the Farmer's alternate charge (NTP), that's a assessment index among the fee acquired by way of farmers (It) and the index that have to be paid by using farmers (Ib). one of the elements used to degree the welfare of farmers is the ability inside the form of buying electricity of farmers to fulfill their everyday needs. the level of welfare of farmers may be visible from the growth inside the purchasing electricity of farmers' profits to meet their needs. If the shopping strength of farmers for goods fed on is higher, the change fee might be higher and vice versa if the purchasing strength of farmers for items consumed decreases, the trade charge will lower.

In December 2020, NTP reduced by using zero.11 percent in comparison to December 2019. This turned into inspired by means of the growth in It (2.25 percentage) which turned into lower than the increase in Ib (2.37 percent). FTT reduced in numerous sub-sectors where the bottom decline in FTT took place in the meals plants Sub-sector at 3.60 percent, followed via the Horticultural crops Sub-quarter at 0.seventy four percentage and the livestock Sub-quarter at zero.16 percent. in the meantime, the increase in NTP occurred in the people's Plantation Sub-region via 6.sixty two percent and the Fisheries Sub-region by means of 0.30 percentage [4].

Literature Review

Export

Export is the procedure of legally transporting goods from one country to any other and Exports are very important in shaping the stability of bills of a rustic [5]. In line with Griffin and Pustay, export is promoting products made in a single's very own united states to be used or resale in other nations. Exports have the gain of acquiring earnings and countrywide profits acquired through export activities could be controlled by way of the state to boom monetary growth. Exports additionally play a position in expanding the market for certain commodities or services, and encouraging the enterprise to boom productiveness due to an expanding market [6]

Direct exports or indirect exports have in not unusual, namely the perfect approach to enter the global market. Direct export has a more complex drift due to the fact the enterprise needs to determine who's chargeable for the enterprise's export commercial enterprise. A less complicated flow takes place in indirect exports as it does not require information or huge capital to join in [7]

Export quantity is the amount of products or offerings exported from one u . s . a . to any other. The extent of a rustic's exports can be stimulated by means of the level of call for and deliver that influences the volume of exports, which include the level of production, the fee presented and the forex charge of the USA worried [8].

Farmer's Exchange Rate

Farmer's exchange rate (FER) is a assessment among the price index obtained via farmers (IT) with the index of costs paid by using farmers (IB) in percentage. Farmer's alternate price is likewise a trademark used to degree the level of welfare or the purchasing electricity of farmers [9]

Farmer's change charge (FER) is conceptually the end result of each issue forming the Farmer's alternate charge, particularly if the alternate rate of the farmer's income element is higher than the change charge of the expenditure issue, the Farmer's exchange price (NTP) will growth and vice versa [10].

The essence of agricultural development is to goal to improve the welfare of the community inside the agricultural area. recollect the agricultural sector is a quarter associated with lifestyles public [11]. Bookmark welfare particular to the farming household is nearly non-existent, so FER is the only choice for observers of agricultural improvement in assessing the level of welfare of farmers. hence, FER is one indicator of the relative stage of welfare of farmers. The better the NTP, the enormously extra rich the farmer's degree of existence [12].

2 Research Methods

The information analysis technique used to remedy the problem in this take a look at is a quantitative analysis technique the usage of the evaluation of the mistake correction version or ECM (Error Correction Model) and more than one Regression with the OLS (Ordinary Least square) approach due to the fact the facts is not stationary at the level, but stationary at the extent of differentiation and the two variables are cointegrated.

The method used to look the connection inside the quick term is monetary concept and the answer to time series variables that aren't desk bound at the extent and blunt regression. Obtuse regression is a chaotic regression, in which a significant regression outcome from unrelated facts. with the intention to return to the equilibrium fee within the long time with the condition that there is a cointegration dating between the constituent variables.

3 Results and Discussion

Cointegration Test Result

Table 1. Cointegration Test Results

Trace Statistic	0.05 Critical Value	Probability	Description
89.13296	15.49471	0.0000	Cointegrated
Max Eigen Statistik	0.05 Critical Value	Probability	Keterangan
88.65051	14.26460	0.0000	Cointegrated

Source: Data processed Eviews 10

From the test results above, it can be seen that the Trace Statistics value (89.13296) > Critical Value (15.49471) and the Probability value 0.0000 < 0.05, as well as the Max Eigen Statistics (88.65051) > Critical Value (14.26460) and the probability value is 0.0000 < 0.05. Thus, it can be concluded that the export performance of coffee commodities on the welfare of farmers in the long term is cointegrated in the equation model.

Hypothesis Test Results

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Table 2. Long-Term Estimation Results

Variable Dependen: Ln_FARMER WELFARE						
Variable Independen	Coefficient	Std. Error	t-Statistic	Sig.		
C	36.22045	2.224567	16.28202	0.0000		
Ln_EXPORT	2.540310	0.123626	20.54834	0.0000		
R-Squared	0.847433					
Adjusted R-squared	0.835261					

Source: Data processed Eviews 10

Primarily based table 2, for the long term, the effect of export performance of coffee commodity cognizance at the coffee farmers welfare based on the calculation consequences obtained within the estimation outcomes table, statistically tremendous effects show that the opportunity price of the export performance of coffee commodity is smaller than $(0.0000 \le 0.05)$, it could be concluded that the export performance of coffee commodity recognition variable has an effect on the coffee farmers welfare in Indonesia.

The value of the impact of found out export performance of coffee commodity on the coffee farmers welfare is shown through the regression consequences, specifically R Square = 0.847433, meaning that the amount of export performance of coffee commodity consciousness on the coffee farmers welfare is 84,74 percent and the final 15.26 percentage. prompted by using different elements outdoor the version beneath looks at.

Table 3. Short-Term Estimation Results

Variable Dependen: Ln_FARMER WELFARE						
Variable Independen	Coefficient	Std. Error	t-Statistic	Sig.		
С	0.025419	0.001712	14.84808	0.0000		
D (Ln_EXPORT)	0.042951	0.016911	2.539788	0.0156		
RES (-1)	-0.790281	0.159805	-4.945287	0.0000		
R-Squared	0.810856					
Adjusted R-squared	0.800616					

Source: Data processed Eviews 10

Primarily based on Table 3, for the short term the impact of found out export performance of coffee commodity coffee farmers welfare based totally at the calculation outcomes acquired within the estimation consequences desk, statistically widespread outcomes show that the chance value of export performance of coffee commodity is smaller = than $(0.0156 \le 0.05)$, it could be concluded that the variable export performance of coffee commodity has an impact on coffee farmers welfare in Indonesia.

The significance of the impact of export performance of coffee commodity on the income of coffee farmers welfare is proven by using the regression effects, namely R square = 0.810856, which means that the amount of export performance of coffee commodity recognition on coffee farmers welfare is 81,08 percentage and the closing 18.92 percentage. stimulated through other elements outside the model underneath look at.

4 Conclusion

The prospect of export overall performance of espresso commodities in the destiny will boom and be higher than previous years and have a great contribution to the countrywide economy thru the formation of GDP and as well as improving the welfare of coffee farmers in Indonesia.

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References

- [1] K. Pertanian, "Outlook Kopi 2020," 2020.
- [2] Kementan, "Outlook Kopi Komoditas Pertanian Subsektor Perkebunan," 2016.
- [3] E. D. Martauli, "ANALYSIS OF COFFEE PRODUCTION IN INDONESIA ANALISIS PRODUKSI KOPI DIINDONESIA," J. Agribisness Sci., vol. 01, no. 2, 2018.
- [4] Badan Pusat Statistik, Statistik Indonesia Tahun 2021, vol. 1101001. 2020.
- [5] B. Seyoum and E. Teshome, "Major Transboundary Disease of Ruminants and their Economic Effect in Ethiopia," Type Double Blind Peer Rev. Int. Res. J. Publ. Glob. Journals Inc, 2017.
- [6] J. Nagy and Z. Jámbor, "Competitiveness in global trade: The case of the automobile industry," Econ. Ann., 2018.
- [7] B. Elango and N. Pangarkar, "Home country institutional impact on the choice of direct vs indirect exports: an emerging markets perspective," Int. Mark. Rev., vol. 38, no. 2, 2021.
- [8] C. Majaski, "Net Exports Definition," Investopedia, 2019. .
- [9] C. Muslim, "NILAI TUKAR PETANI KOMODITAS PERKEBUNAN," SEPA J. Sos. Ekon. Pertan. dan Agribisnis, 2018.
- [10] A. Nirmala, N. Hanani, and A. Muhaimin, "Analisis Faktor Faktor yang Mempengaruhi Nilai Tukar Petani Tanaman Pangan di Kabupaten Jombang," HABITAT, 2016.
- [11] C. M. Keumala and Z. Zainuddin, "Indikator Kesejahteraan Petani melalui Nilai Tukar Petani (NTP) dan Pembiayaan Syariah sebagai Solusi," Econ. J. Ekon. Islam, 2018.
- [12] D. Pratiwi, S. M. U. Agustini, W. Windasari, and E. N. Kencana, "Forecasting Farmer Exchange Rate in Bali Province Using Seasonal Autoregressive Integrated Moving Average (SARIMA) Method," in Journal of Physics: Conference Series, 2020, vol. 1503, no. 1.