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The impact of the COVID-19 pandemic on the country's national economy: The Indonesian experience

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Abstract
Purpose: This study aims to examine the effects of inflation, exchange rates, and the Covid-19 pandemic on Indonesia's trade balance position and to develop an empirical estimation model to predict its position.
Method: The data used in this research are the inflation rate, exchange rate of rupiah to the US dollar, export value, and import value of Indonesia from January 2012 to March 2021. The econometric model used in this study was a binary logistic regression model.
Results: The results indicate that The regression coefficient of the inflation rate is negative at 0.3621, with an odds ratio of 0.696. This suggests that 1 percent in inflation reduces the probability of a trade balance surplus of 0.696. The regression coefficient for the exchange rate was positive at 2.18, with an odds ratio of 8.85. This means that every 2.72 rupiah increase in the exchange rate raises the probability of a trade balance surplus of 8.85 times. However, this study does not find empirical evidence that inflation, exchange rates, and pandemic of Covid-19 have no impact on the position of Indonesia's trade balance.
Limitations: This study focuses on two factors believed to influence the position of trade balance in Indonesia: the inflation rate and foreign exchange rates.
Contributions: This study provides insights into government policy.
Keywords: *Inflation, Exchange Rate, Trade Balance, Pandemic Covid-19, Binary Logistic Regression Model*
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1. Introduction

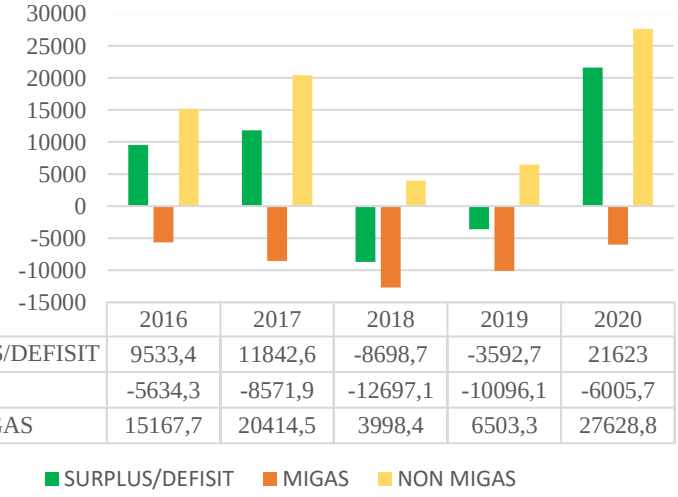
The Covid-19 pandemic period has persisted for nearly two years since the first case was identified in Indonesia in March 2020. The pandemic's negative impact occurred in almost all aspects of life, particularly the economy. Nearly every country has experienced a slowdown in economic growth, and many countries in the world have experienced negative economic growth (Ukwuoma, Cirman, & Oye, 2022). Prior to the Covid-19 pandemic, global economic growth was projected to be 3.3% in 2020. However, owing to the pandemic, the global economy is now contracting by approximately 3%.

The Covid-19 pandemic has disrupted international transactions (Khatun, Baten, Farukh, & Faruk, 2022) and affected the economic growth of impacted countries (Junaedi & Salistia, 2020). It not only triggered the public health crisis but also negatively impacted the global economy and financial markets, leading to significant income reductions, increased unemployment, and disruptions in transportation, services, and industrial manufacturing (Pak et al., 2020). As countries attempted to mitigate these severe negative impacts, many faced challenges in maintaining a balanced trade position (Okeke, Ezeala,

Okoye, & Egbunike, 2023). Trade balance is a balance that records the difference between the value of exports and the value of imports of a country in a certain period (Alamsyah, Wibisono, & Satriawan, 2023; Ferdaus & Zaimasuri, 2023). The trade balance represents the difference between a country's export and import values over a specific period. Meanwhile, the trade balance is in deficit if the value of exports for a period is lower than that of imports in that period.

The export value of a country is the value of goods and services sold by the residents of that country to residents of other countries. The value of imports is the value of goods and services purchased by the residents of one country from the residents of other countries. The value of exports and imports is obtained from the trade activities between countries. International trade is crucial for countries worldwide. A country requires the goods and services needed by its population that it is unable to produce efficiently. Conversely, a country has goods and services that can be produced efficiently, and then sells them to other countries to benefit from trade. Countries that sell goods and services to other countries (exports) generate foreign exchange. Every country needs foreign exchange to purchase goods and services from abroad (imports) to satisfy domestic needs and fulfil international obligations. Imported goods and services can address consumer demand and support domestic production.

Table 1. Development of Exports, Imports, and Positions Indonesia's Trade Balance



	2016	2017	2018	2019	2020
SURPLUS/DEFISIT	9533,4	11842,6	-8698,7	-3592,7	21623
MIGAS	-5634,3	-8571,9	-12697,1	-10096,1	-6005,7
NON MIGAS	15167,7	20414,5	3998,4	6503,3	27628,8

Indonesia's trade balance has fluctuated between 2016 and 2020. In 2016, the trade balance recorded a surplus of over 9.5 billion US dollars, which increased to over than 11.8 billion US dollars in 2017. However, in 2018 and 2019 Indonesia's trade balance shifted to deficit of 8.7 billion US dollars and 3.4 billion US dollars, respectively. In 2020, Indonesia's trade balance recorded a surplus of more than 21.6 billion US dollars. The surplus was due to a substantial surplus of 27.6 billion US dollars from non-oil and gas transactions, while the oil and gas transaction deficit was only 6.0 billion US dollars. A trade balance surplus increases foreign exchange reserves, whereas a deficit reduces them.

2. Literature review

Trade balance, which can show either a surplus or deficit, is determined by the value of exports and imports during a given period. Export involves residents of a country selling goods and services to other countries, whereas imports involve residents purchasing goods and services from abroad. Therefore, changes in domestic prices (inflation) can affect both exports and imports. Inflation serves as an indicator of price changes in goods and services within a country over a certain period.

The exchange rate is the value of a country's currency relative to that of the other country. For example, the exchange rate between the Indonesian rupiah and the US dollar is Rp. 14,400 per USD. This means that one US dollar is equivalent to 14,400 rupiahs. The exchange rate indicates the value of the local currency in terms of the foreign currency. Since international transactions (exports and imports) involve

foreign currency, such as the US dollar, fluctuations in the exchange rate can affect the value of both exports and imports. In other words, the exchange rate affects both exports and imports.
The trade balance position (surplus/deficit) for a given period is determined by the export and import values. Both inflation and foreign exchange rates can influence these values. Thus, changes in inflation and foreign exchange rates affect the position of trade balance.

Previous studies have established the inflation and exchange rates for exports and imports. This study provides empirical evidence of how inflation and exchange rates affect the position of the trade balance by examining changes in Indonesia's trade balance before and during the Covid-19 pandemic using a binary logistic regression model. These findings are valuable for the government to manage Indonesia's trade balance.

Several studies explore the effects of inflation and exchange rates on exports and imports. Purusa and Istiqomah (2018), Jacob, Raphael, and Ajina (2021), Anshari, El Khilla, and Permata (2017) provided empirical evidence of inflation impact on exports. Putri and Suhadak (2016) investigated the effect of inflation and exchange rates on exports to South Korea using data on exports of textile and electronic commodities.. Sari and Rauf (2018) analyzed monthly data from 2013 to 2017 and found that inflation affected Indonesia's exports and imports. Stockman (1985) concludes that the inflation rate influences Canada's international trade patterns.

Soeharjoto (2020) provides evidence of the impact of inflation on foreign exchange reserves in five Asean countries, including Indonesia. E. Y. Rahmawati (2020) demonstrate the effect of exchange rate ct rate on foreign exchange serves. Nopeline and Siahaan (2020), using data from to 2008-2018 with the OLS model, concluded that, at a significance level of 5%, the inflation rate does not affect the trade balance, while exchange rates affect the trade balance in Indonesia.

D. M. Rahmawati (2014) analyzed data from 1980 to 2021 and concluded that the exchange rate affected Indonesia's trade balance. Ati and Asnawi (2018) found empirical evidence of the exchange rate's impact on Indonesia's trade balance using data from 1986 to 2016. Trinh (2014) also demonstrated the effect of the exchange rate on Vietnam's trade balance based on data from 2000 to2012. Baharumshah (2001), studying Malaysia and Thailand's trade with Japan from the first quarter of 1980 to the fourth quarter of 1996, concluded that in the long run, a decline in the value of domestic currency could improve the trade balance for both countries. Yazidi (2013), analyzing the Tanzanian economy using data from 1970 to 2010, and Eke, Eke, and Obafemi (2015), examining the Nigerian economy using data from i970 to 2012, found that the exchange rate positively impacts the trade balance. The depreciation of the domestic currency can improve the trade balance. However, Azaria and Irawan (2019) find that inflation and exchange rates have no effect on the exports of fisheries and marine commodities. Similarly, Noviana and Sudarti (2018) find no evidence of the impact of inflation and exchange rates on Indonesian rubber exports.

Prameswari, Indrawati, and Laut (2019) find that inflation has no effect on foreign exchange reserves in Indonesia. Similarly, Islam (2013) found no empirical evidence of the impact of domestic inflation on imports in the Bangladeshi economy. Yaya and Lu (2012), using data from January 1994 to August 2009, found no evidence of the effect of the exchange rate on China's trade balance. The research outlined above offers varying conclusions on the effects of inflation and exchange rates on exports and imports. This study distinguishes itself by examining the impact of inflation rates and exchange rates on Indonesia's trade balance while incorporating the Covid-19 pandemic as a control variable to control for differences between pre-pandemic and pandemic conditions. In addition, this study aims to develop an estimation model to predict the probability of Indonesia's trade balance position (surplus or deficit).

3. Research Method

The trade balance can be either a surplus or a deficit. The trade balance is in surplus when the value of exports exceeds the value of imports and in deficit when the value of exports is lower than the value of

imports. The trade balance position is crucial for economies of countries engaged in international trade. A surplus increases a country's foreign exchange reserves, while a deficit reduces it. Foreign exchange reserves are important for a country, especially for financing exports and paying foreign debt.

Previous studies indicate that inflation and foreign exchange rates can influence exports and imports, thereby determining the position of the trade balance (surplus or deficit). Inflation describes changes in prices over a certain period. Indonesia uses the Indonesian Consumer Price Index as the basis for determining inflation rates. The determination of the IHKI in a period uses several goods and services generally consumed by households. The inflation rate in Indonesia in a period is the percentage change in the CPI in a period to the CPI in the previous period (Badrudin, 2013, 2018).

The exchange rate is the agreed price level at which residents of a country exchange currency with those of another country (Mankiw, 2018). Salvatore (2015) defined it as the price of one currency in terms of another. In simple terms, the exchange rate represents the value of the foreign currency, expressed in terms of a country's local currency. In Indonesia, the rupiah exchange rate against foreign currencies can be expressed in several ways: selling, buying, middle, and reference rates. The buying rate is the price at which a bank purchases a foreign currency. The selling rate is the price at which a bank sells foreign currency. The middle rate is the average foreign exchange price between the buying and selling rates. Bank Indonesia determines the reference rate based on the weighted average of real-time interbank transaction rates. The reference rate issued by Bank Indonesia is known as the Jakarta Interbank Spot Dollar Rate (JISDOR).

Exports and imports are the key international trade terms. When goods and services produced in one country are sold to residents of another country, they are considered exports. Conversely, imports occur when residents purchase the goods and services produced in other countries. Each country tracks the value of exported and imported goods and services over a given period, within the current account balance. The trade balance specifically records transactions with other countries involving exports and imports of goods.

The trade balance in a given period can be either a surplus or a deficit. A surplus occurs when the value of exports exceeds that of imports in that period. Conversely, a deficit occurs when the import value surpasses that of exports. The trade balance position is determined by the values of exports and imports. Both theory and empirical evidence from previous research suggest that inflation and foreign exchange rates influence exports and imports. Additionally, the Covid-19 pandemic has negatively impacted economic activity at both national and global levels.

Based on these considerations, this study formulated the following three hypotheses. The first hypothesis (H1) states that the inflation rate negatively impacts the position of the trade balance, implying that the higher the inflation rate in Indonesia, the lower the probability that the trade balance will experience a surplus. This is because higher inflation tends to decrease exports and increase imports, thereby diminishing the chance of a trade surplus. The second hypothesis (H2) suggests that foreign exchange rates positively impact trade balances. This means that as the exchange rate increases (the rupiah depreciates), the likelihood of Indonesia's trade balance experiencing surplus also increases. This is because a higher exchange rate (the rupiah depreciates) typically leads to an increase in exports and decrease in imports, thereby enhancing the chances of a trade balance surplus. The third hypothesis (H3) suggests that there are differences in Indonesia's trade balance position before and during the Covid-19 pandemic, indicating that the pandemic has an impact on Indonesia’s trading position.

As previously explained, this study aims to provide empirical evidence of the impact of the inflation rate, exchange rate, and the Covid-19 pandemic on the trade balance position (surplus/deficit) in Indonesia, and to find empirical estimation models to predict the probability of position (surplus/deficit) for Indonesia's trading country. The data used in this study include the inflation rate, the rupiah exchange rate against the US dollar, the value of exports, and the value of imports, covering the period from January 2012 to March 2012. In the regression the Covid-19 pandemic was represented as a

dummy variable: 0 for the period before the pandemic (January 2012 to February 2020) and 1 for the pandemic period (March 2020 to March 2021).
The econometric model employed to test the research hypotheses and predict the probability of Indonesia's trade balance position was a binary logistic regression model. This model is used to examine the effect of the inflation and exchange rates on the trade balance position, as described below.

$$P = \frac{e^{(\beta_0+\beta_1 \text{INFLATION}+\beta_2 \text{EXCHANGE RATE}+\beta_3 \text{PANDEMIC})}}{1 + e^{(\beta_0+\beta_1 \text{INFLATION}+\beta_2 \text{EXCHAGE RATE}+\beta_3 \text{PANDEMIC})}}$$

In this study, P represents the probability of a trade balance surplus given a certain inflation rate and US exchange rate. P = 1 if the trade balance is in a surplus position and P = 0 if it is in deficit. A higher P-value indicates a greater probability of a trade balance surplus, while a lower P-value signifies a lower probability of a surplus. In the binary logistic regression model, e is the base of the natural logarithm, which is approximately equal to 2.71828. The term 0 represents the intercept of the estimation model, whereas 1, 2, and 3 are the regression coefficients for inflation, exchange rates, and pandemics, respectively. INFLATION refers to the inflation rate, and EXCHANGE RATE denotes the exchange rate of the rupiah against the US dollar. PANDEMIC is a dummy variable representing the periods before and during the Covid-19 pandemic.

The econometric model employed to test the research hypothesis is a binary logistics model. The data were processed using EViews version 11. Prior to testing the hypothesis, it was essential to assess the suitability of the estimation model based on the calculation results to predict the value of the dependent variable. The first feasibility test of the model assesses whether all independent variables are suitable for explaining the variation in the dependent variable. This was conducted using the Likelihood Ratio (LR) test. The null hypothesis for the LR test states that none of the independent variables are feasible for predicting the value of the dependent variable. The null hypothesis was rejected if the LR statistic exceeded the critical chi-square value at the chosen significance level. The likelihood ratio (LR) test can be evaluated using the LR Statistical probability value, with the null hypothesis being rejected if this probability value is less than the significance level. The McFeddel R-squared value was used to measure the explanatory power of all independent variables.

The second feasibility test evaluated the suitability of the estimated regression models and observed data. This was performed using the Hosmer-Lemeshow test. The null hypothesis of the Hosmer-Lemeshow test states that the estimated model adequately fits the observation data. The null hypothesis was rejected if the HL statistic exceeded the chi-square table value at = 0.05. Alternatively, the Hosmer-Lemeshow test can be performed using the statistical HL probability value. The null hypothesis was rejected if the probability was < 0.05. The accuracy of the model's prediction of the dependent variable was evaluated using a classification matrix.

The research hypotheses are tested using a regression coefficient test. The null hypothesis for this test is that the independent variable has no effect on the dependent variable. The null hypothesis was rejected if the Z value exceeded the critical Z value at the chosen significance level. Alternatively, the regression coefficient can be evaluated using the Z-test probability value. The null hypothesis was rejected if the probability value was less than the significance level.

4. Results and discussions

This study utilizes data on the inflation rate (INFLATION), the rupiah EXCHANGE RATE against the US dollar (EXCHANGE RATE), the period before and during the Covid-19 pandemic (PANDEMIC), and the TRADE BALANCE position (TRADE BALANCE). The trade balance position is determined by comparing the value of exports to that of imports. In the trade balance position, surplus is indicated by a value of 1 for the NP variable, while deficit is indicated by a value of 0. The PANDEMIC variable was set to zero for the period before the Covid-19 pandemic and one during the pandemic. A description

of the inflation rate, the rupiah exchange rate against the US dollar, and the trade balance are provided in Table 2.

Table 2. Description of Inflation Rate, Exchange Rate, and Trade Balance
(January 2012 - March 2021)

Variable	Average	Max	Min	Std. Deviasi
INFLATION (%)	0,35	3,29	- 0,45	0,50
EXCHANGE (Rupiah)	12.826,84	16.367	9.000	1.755,95
TRADE BALANCE (Million US$)	324,44	3.577,42	- 2.331,12	1.175,72

Source: Processed data: 2021.

The average inflation rate from January 2021 to March 2021 was 0.35 percent. The highest inflation rate of 3.29 percent was recorded in July 2013, whereas the greatest deflation at 0.45 percent, occurred in April 2016. The average exchange rate of rupiah against the US dollar during the study period was Rp. 12,826.84 per US dollar. The highest exchange rate was observed for Rp. 16,367 per US dollar in March 2020 and the lowest was Rp. USD 9,000 per US dollar in January of 2012. The standard deviation of the rupture exchange rate during the study period was Rp. 1,755.95 per US dollar.

From January 2021 to March 2021, the trade balance fluctuated, with an average of 324.44 million US dollars per month. Indonesia's trade balance reached the highest surplus of $3,577.42 million in October 2020, while the highest deficit was 2,331.12 US dollars in April 2019. The feasibility of the estimation model used to predict the trade balance position is tested using two types of tests: the Likelihood Ratio test and the Hosmer-Lemeshow test. The likelihood Ratio test aims to determine whether the inflation rate, exchange rates, and the Covid-19 pandemic can effectively explain the trade balance position in Indonesia. Table 3 shows the statistical values of the Likelihood Ratio test.

Table 3. Statistical Value of Likelihood Ratio

LR Statistic	Prob (LS Stat.)	McFadden R-Squared	Nilai Ch-Square Tabel (df = 1; α = 5%)
10,59252	0,014146	0,071938	3,841

Source: Data processed, 2021

The statistical value for the Likelihood Ratio test was 10.59252 with a probability of 0.014146. The Chi-Square critical value for 1 degree of freedom is 3.841. The R-squared McFadden value of the estimation model is 0.071938. The Hosmer-Lemeshow test evaluates the model's fit in accordance with observational data. The statistical values of the Hosmer-Lemeshow test are shown in Table 4.

Table 4. Statistical Value of Hosmer-Lemeshow Test

H-L Statistic	Prob. Chi-Sq (8)	Chi-Square Table (df. = 8; α = 5%)
6,8255	0,5556	15,507

Source: Data processed, 2021

The resulting estimation model had an HL value of 6.8255 and a chi-square probability value of 0.5556. The Chi-Square critical value for the HL test with 8 degree of frequency is 15.507. The prediction accuracy of the model was measured using the percent correct prediction value. Table 5 shows the prediction classification matrix based on the regression model.

Table 5. Expectation-Prediction Evaluation Matrix

	Estimation Equation			Constant Probability		
	Dep=0	Dep=1	Total	Dep=0	Dep=1	Total

P(Dep=1)<=C	14	9	23	0	0	0
P(Dep=1)>C	28	60	88	42	69	111
Total	42	69	111	42	69	111
Correct	14	60	74	0	69	69
% Correct	33,33	86,96	66,67	0,00	100,00	62,16
% Incorrect	66,67	13,04	33,33	100,00	0,00	37,84

Source: Data processed, 2021

Table 5 shows that the estimation model correctly predicted 74 out of 111 observations, whereas 37 observations were incorrectly predicted. Table 6 provides the regression coefficient values for the inflation rate, exchange rate, and covid-19 pandemic, along with the Z-statistic values and their corresponding probability values.

Table 6. Statistical Values of Research Hypothesis Testing

Variable	Coefficient	Z-Statistics	Probability
C	-20,08988	-1,472564	0,1409
INFLATION	-0,362066	-0,854995	0,3926
EXCHANGE RATE	2,180520	1,509804	0,1311
PANDEMIC	1,733712	1,594140	0,1109

Source: Data processed, 2021

The regression coefficient of the estimation model for the inflation rate is -0.362066, with a Z statistic value of -0.854995 and a probability Z statistic value of 0.3926. The regression coefficient of the estimation model for the exchange rate variable is 2.180520, with a Z-statistic value of 1.509804 and a probability Z-statistic value of 0.1311. The regression coefficient of the pandemic estimation model is 1.733712, with a Z statistic value of 1.594140 and a Z statistic probability value of 0.1109. The inflation rate regression coefficient is negative, indicating that the higher the inflation rate, the lower is the probability (possibility) of the trade balance experiencing a surplus.

On the contrary, a lower inflation rate increases the probability that the trade balance experiences a surplus. The positive regression coefficient for the exchange rate indicates that, as the exchange rate rises (rupiah depreciates), the probability (possibility) of the trade balance experiencing a surplus increase. On the other hand, as the exchange rate falls (the rupiah appreciates), the probability of the trade balance experiencing a surplus decrease. The positive regression coefficient for the pandemic variable indicates that the probability of Indonesia's trade balance position during the Covid-19 pandemic is higher than the probability of a surplus compared to before the Covid-19 pandemic. The estimation model used to predict Indonesia's balance of payment positions obtained from this study is as follows:

$$P = \frac{e^{(-27{,}6287 - 0{,}4001\text{INFLATION} + 2{,}9937\text{EXCHANGE RATE} + 1{,}733712\text{PANDEMIC})}}{1 + e^{(-27{,}6287 - 0{,}4001\text{INFLATION} + 2{,}9937\text{EXCHANGE RATE} + 1{,}733712\text{PANDEMIC})}}$$

The PANDEMIC value was 0 before the Covid-19 pandemic and 1 during the Covid 19 pandemic.

The estimation model's statistical value of the LR test is 10.59252, greater than the chi-square table value of 3.841, indicating that the LR test rejects the null hypothesis, which states that the inflation rate, exchange rate, and Covid-19 pandemic cannot be used to predict the position of the balance of payments. The probability value of the Likelihood Ratio test is 0.014146, which is smaller than = 0.05, indicating that the LR test rejects the null hypothesis. The LR test concludes that the inflation rate, exchange rate, and Covid-19 pandemic can be used to predict the position of trade balance in Indonesia.

The R-Squared McFadden value of the estimation model is 0.071938, indicating that the ability of the inflation rate, exchange rate, and the Covid-19 pandemic to explain the variation of the trade balance position is 7.1938 percent. The variation in the trade balance position explained by factors other than inflation rate, exchange rate, and the pandemic is 92.8062 percent.
The statistical value of the Hosmer-Lemeshow test was 6.8255, which is smaller than the chi-square table value of 15.507. Similarly, the Chi-Square probability value is 0.5556, which is greater than = 0.05, indicating that the decision in the HL test is to accept the null hypothesis. The results of the HL test indicate that the estimation model did not differ from the observed value. Thus, the estimation model can be used to predict the position of the trade balance using the inflation rate, exchange rate, and the pandemic. The classification matrix shows the correct prediction results from the estimation model, as many as 74 and 37 observations from 111 observations. Thus, the prediction accuracy obtained using the estimated regression model was 66.67 percent.

The first hypothesis states that the inflation rate negatively impacts Indonesia's trade balance. The Z value of the inflation statistic in the estimation model was − -0.854995 and the probability value of the Z statistic was 0.3926. The probability value of the Z statistic is 0.3926, which is greater than 0.05, indicating that the null hypothesis is not rejected.

This test concludes that the inflation rate does not negatively impact Indonesia’s trade balance position. Thus, the first hypothesis of this study was not proven. This is possible because an increase in domestic prices does not lead to higher prices for export goods, allowing the competitiveness of export goods to be maintained.

The second hypothesis states that the exchange rate has a positive impact on Indonesia's trade balance position. The statistical Z value of the estimation model was 1.509804, and the probability value of the Z statistic was 0.1311. The probability value of the Z statistic is 0.1311, which is greater than = 0.05, indicating that the decision to test the exchange rate regression coefficient does not reject the null hypothesis. The exchange rate regression coefficient test shows that the exchange rate does not positively impact the position of Indonesia's trade balance. This may be due to the depreciation of the rupiah not being sufficient to increase the exports of Indonesian goods.

The conclusions drawn from testing the first and second hypotheses are similar to those of research by Islam (2013), Noviana and Sudarti (2018), and Azaria and Irawan (2019), who found no empirical evidence of the influence of inflation on exports and imports. Prameswari et al. (2019) also found no empirical evidence of the effect of inflation on foreign exchange reserves. Similarly, Nopeline and Siahaan (2020) concluded that the inflation rate had no impact on trade balance. Yaya and Lu (2012) did not find empirical evidence of the effect of the exchange rate on China's trade balance.

The third hypothesis states that there are differences in Indonesia's trade balance before and during the Covid-19 pandemic. The Z value of the pandemic variable statistic in the estimation model was 1.594140, with a Z-statistic probability value of 0.1109. The Z-statistic probability value of 0.1109 is greater than = 0.05, indicating that this test does not reject the null hypothesis. The results of the third hypothesis test show that the Covid-19 pandemic has no impact on Indonesia's trade balance position. The third hypothesis of this study was not supported. This can be caused by changes in the value of exports and imports before and during the Covid-19 pandemic, therefore the difference between the value of exports and the value of imports of goods does not experience a significant change.

5. Conclusion

This study aims to find empirical evidence of the impact of inflation, exchange rates, and the pandemic Covid-19 on the Indonesia’s trade balance position and find an empirical estimation model to predict the trade balance position. The data used in this study include the inflation rate, the rupiah exchange rate against the US dollar, the value of exports, and the value of imports in January 2021 to March 2021. The value of exports and imports is used to determine the trade balance position: a surplus or a deficit. The model used in this study is a binary logistic regression model. The results of this study failed to find empirical evidence of the negative impact of the inflation rate and the positive impact of the rupiah

exchange rate against the US dollar of Indonesia's trade balance position during the study period. The trade balance position before and during the Covid-19 pandemic was not different, indicating that the Covid-19 pandemic had no impact on Indonesia's trade balance position.

5.1 Limitation/s and Study Forward

The position of trade balance is very important for the Indonesian economy. The surplus in Indonesia's trade balance will improve foreign exchange reserves that can be used to finance imports and pay off foreign debt. The results of this study indicate that the inflation rate and the rupiah exchange rate against the US dollar have no effect on the trade balance position. The results of this study also show that there was no difference in the position of the trade balance before and during the Covid-19 pandemic. Based on the results of this study, it is recommended that the government create a trade balance surplus not by controlling the inflation rate and the rupiah exchange rate against the US dollar, but by using other instruments that can increase exports, such as increasing competitiveness, finding new markets for export goods, and reducing imports.

This study is limited to two factors that are thought to affect the position of the trade balance in Indonesia: inflation rate and foreign exchange rates. The researcher did not include other factors such as interest rates, government policies on foreign trade, and other factors that can also affect Indonesia's exports and imports due to the difficulty of finding data during the research period. The second limitation is that the use of the Covid-19 pandemic as a control variable involves a significantly different period before and during the Covid-19 pandemic.

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