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Indonesia's macroeconomic conditions during United States-China trade war

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ABSTRAK

Perang dagang antara Amerika Serikat dan Tiongkok dapat berdampak pada perekonomian Indonesia. Hal ini disebabkan karena Amerika Serikat dan Tiongkok merupakan mitra dagang internasional utama Indonesia. Indikator makro ekonomi Indonesia yang dipengaruhi perang dagang adalah ekspor, impor, suku bunga, dan inflasi. Penelitian ini bertujuan untuk menguji pengaruh secara parsial dan simultan perang dagang terhadap kondisi makro perekonomian Indonesia yaitu ekspor, impor, suku bunga, dan inflasi. Data yang digunakan dalam penelitian ini adalah data sekunder yaitu dari Badan Pusat Statistik (BPS) dan Bank Indonesia (BI) tahun 2017 – 2020. Teknik analisis data yang digunakan adalah MANOVA (Multivariate Analysis of Variance). Hasil penelitian empiris menunjukkan perang dagang berpengaruh secara simultan terhadap ekspor, impor, suku bunga, dan inflasi. Sementara itu, perang dagang berpengaruh secara parsial terhadap ekspor, impor dan suku bunga, tetapi tidak berpengaruh secara parsial terhadap inflasi. Penelitian kami menyimpulkan bahwa terjadinya konflik dagang pada dua mitra dagang utama Indonesia dalam hal ini Amerika Serikat dan Tiongkok berpengaruh terhadap kondisi makro ekonomi Indonesia terutama pada ekspor, impor, suku bunga dan inflasi. Indonesia harus mengambil langkah-langkah strategis untuk mengantisipasi dampak perang dagang terutama pada kebijakan ekspor, impor dan suku bunga.

ABSTRACT

The trade war between the United States and China can affect the Indonesian economy. It is because the United States and China are Indonesia's main trading partners in International trading. Indonesia's macroeconomic indicators affected by the trade war are exports, imports, interest rates, and inflation. This research examines the trade war's partial and simultaneous effect on Indonesia's macroeconomic conditions, such as exports, imports,

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interest rates, and inflation. The data used in this study is secondary data from the Central Bureau of Statistics (BPS) and Bank Indonesia (BI) in 2017 – 2020. The data analysis technique used is MANOVA (Multivariate Analysis of Variance). The empirical results showed that trade war simultaneously affects exports, imports, interest rates, and inflation. Meanwhile, the trade war partially affects exports, imports, and interest rates but not inflation. Our research concluded that trade conflicts between Indonesia's two main trading partners, namely the United States and China, affect Indonesia's macroeconomic conditions, especially on exports, imports, interest rates, and inflation. Indonesia must take strategic steps to anticipate the impact of the trade war, especially on export, import, and interest rate policies.

INTRODUCTION

The post-cold war era between the Western Block (the United States) and the Eastern Block (Russia) has witnessed the Western countries’ liberal system dominating the global economic system. The United States, as the leader of winning countries, spawned global economic policies affecting international trade, including those related to international trade between developing and developed countries (Amadi, 2020).

China’s recently increasing role in international trade has challenged the United States’ dominance. China's economy is expanding so rapidly that it can compete with the United States. The rise of China's economy in recent decades and the United States' declining share of global production and international trade at the beginning of the twenty-first century have altered the geopolitical landscape of the world, resulting in the formation of the "Group of Two," or G2 (Kapustina *et al*., 2020). In 2015, China surpassed the United States as the leader in commodity exports and is a dominant force in international trade. China's absolute nominal GDP is USD 14,092 million, ranking second behind the United States (USD 20,412 million and a 23.3% share of the global GDP). China has a higher purchasing power parity GDP (USD 23,159 million) than the United States (USD 19,390 million). China is the world's largest exporter, with annual exports of USD 2,263.33 million, compared to the United States' exports of USD 1,546.72 million in the second place. According to several Chinese economists, China's national economic power surpassed that of the United States in 2014. Additionally, China has become the world's low-cost manufacturing hub and an export-oriented global technology hub.

The rivalry between the two countries has resulted in a trade war affecting their trade policies to win the international trade competition. The trade war between the two countries began in 2017 when President Donald Trump set tariffs on exports and imports of products from China. Further, the United States believes that China engaged in unfair trade practices, such as intellectual property infringement, resulting in a widening trade deficit (Liu & Woo, 2018). The United States imposed USD 550 billion

of tariffs exclusively on Chinese goods. Then, in retaliation for the United States' treatment, China imposed 14 times the amount of trade adjustment tariffs on U.S. products, a total of USD 185 billion. The trade war period served as the context for this study, implying that the trade war still lasted through June 2020, although tensions had subsided due to the COVID-19 pandemic (Taskinsoy, 2020).

The trade war affects the economy of the trading partner countries of the two countries, including Indonesia., causing the demands and prices for goods in the Indonesian macroeconomic sector to decline (Ministry of PPN/Bappenas, 2019). The data indicates the decline in the macroeconomic sector in 2017-2020, which includes exports, imports, interest rates, and inflation. Table 1 below presents the data regarding the decline in the Indonesian macroeconomic sector.

Table 1
Development of Indonesia's oil and gas and non-oil and gas exports in 2017 – 2020

Export Component	Value of oil – gas and non-oil and gas export (Million USD)			
	2017	2018	2019	2020
Oil and Gas	15,744.4	17,171.7	11,789.3	8,309.1
Non-Oil and Gas	153,083.8	162,841.0	155,893.7	154,997.4
Amount	168,828.2	180,012.7	167,683.0	163,306.5

Source: Central Bureau of Statistics (2021)

Table 2
Development of Indonesia's Oil and Gas and Non-Oil and Gas Imports in 2017 – 2020

Import Component	Value of oil – gas and non-oil and gas imports (Million USD)			
	2017	2018	2019	2020
Oil and Gas	24,316.2	29,868.8	21,885.3	14,256.9
Non-Oil and Gas	132,669.3	158,824.4	148,842.1	127,311.5
Amount	156,985.5	188,711.2	170,727.4	14, 568.3

Source: Central Bureau of Statistics (2021)

Table 2 above explains the effects of the trade war between the United States and China on the macroeconomic sector, including oil and gas/non-oil exports and imports of oil and gas/non-oil and gas, from 2017 to 2020. The two countries engaging in the trade war carried out various trade policies, especially export and import tariffs, to win international trade competitions. Table 1 suggests that the value of Indonesia's oil and gas exports at the beginning of the US-China trade war period still increased from USD 15,744.4 million in 2017 to USD 17,171.7 million in 2018. Likewise, non-oil and gas exports increased from USD 153,083.8 million in 2017 to USD 162,841 million in 2018. However, the value of Indonesia's exports in the oil and gas sector continued to decline in the subsequent period of the US-China trade war. The value of Indonesia's oil and gas exports decreased to USD 11,789.3 million in 2019 and USD 8,301.1 million in 2020. Similarly, the value of Indonesia's non-oil and gas exports decreased to USD 155,893.7 million during the 2019 period, compared to USD 155,893.7 million in 2018. Non-oil and gas exports continued to decline to USD 154,997.4 million in 2020.

Table 2 indicates that the value of Indonesia's non-oil and gas imports

increased from USD 24,316.2 million in 2017 to USD 29,868.8 million in 2018 at the start of the US-China trade war in 2017. Similarly, non-oil and gas imports increased from USD 132,669.3 million in 2017 to USD 158,824.4 million in 2018. Nevertheless, the value of non-oil and gas imports decreased from USD 21,885.3 million in 2019 to USD 14,259.9 million in 2020 during the trade war periods of 2019 and 2020. In addition, non-oil and gas imports decreased from USD 148,842.1 million in 2019 to USD 127,311.5 million in 2020.

The trade war also prompted Bank Indonesia (BI) to anticipate its monetary policy, which resulted in six interest rate increases in 2018. Figure 1 below demonstrates the increases:

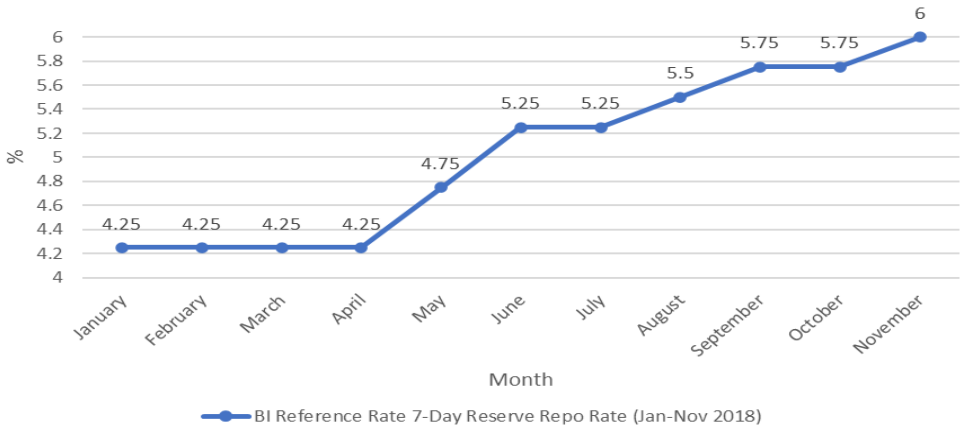


Figure 1
BI Reference Rate 7-Day Reserve Repo Rate (Jan-Nov 2018)
Source: processed by researchers.

Additionally, the trade war fluctuates inflation. Indonesia can control or reduce the rate of inflation increase by maximizing the productivity and supply of domestic food stocks. Table 3 below illustrates the data on the development of Indonesia's inflation from 2017 – 2020. The data facilitates us to formulate research problems or phenomena, indicating the development of the macroeconomic sector, which includes exports, imports, interest rates, and inflation in Indonesia from 2017 – 2020.

Table 3
Indonesia's Inflation Development in 2017 – 2020

Inflation	General Inflation (%)			
	2017	2018	2019	2020
Indonesia	3.61	3.13	2.72	1.68

Source: Central Bureau of Statistics (2021)

Several studies have analyzed the US-China trade war, including Singh (2019) who claims that the trade war between the two countries has devolved into a battle of perceptions (Singh, 2019). Neither side conceded to the other's demands because neither wishes to appear fragile. According to Teimouri & Raeissadat (2019), the US-China trade war severely affects other countries and regions, particularly ASEAN

countries. ASEAN countries are strongly exposed to the US and China, making them particularly vulnerable to a trade war between the two countries. ASEAN's regional integration is becoming increasingly crucial because of the potential global impact of trade wars. ASEAN should also look for new markets and reduce its dependence on the US and China (Teimouri & Raeissadat, 2019).

According to Steinbock (2018), China is a primary target of the US trade war due to its strong growth rate over the past two decades and the highest trade imbalance with the US. The tariff policy became the first assault on bilateral tensions with multilateral consequences, undermining global economic integration and intensifying technological competition (Steinbock, 2018). According to Taufikurahman & Firdaus (2019), the US-China trade war has reduced the overall output of goods produced by the US and China. Aside from that, both the US and Chinese industries (GDP) experienced growth corrections. Still, exports are affected by -0.24%, which has more significant repercussions (Taufikurahman & Firdaus, 2019).

Prior discussions lead to our research gap. Specifically, the effects of the US-China trade war on Indonesia's macroeconomic conditions arguably remain understudied. This study also focuses on macroeconomic indicators affected by the US-China trade war, such as exports, imports, interest rates, and inflation, which have not been discussed in earlier studies.

This study investigates how the US-China trade war affects Indonesia's exports, imports, interest rates, and inflation. Furthermore, we analyze how the trade war between the United States and China affects Indonesia's macroeconomic variables, such as exports, imports, interest rates, and inflation.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

International Trade Theory

Theories that attempt to explain the motivations of inter-trade countries, the patterns of trade that underlie them, and the ultimate benefit of trade develops to explain the emergence of international trade. Understanding the factors that cause the trade will enable individuals, firms, and governments to better determine how to interact when determining options in the trading system (Chen, 2022).

Mercantilism Theory

International trade theory begins with the emergence of pre-classical mercantilism (mercantilism) between the 16th century and the mid-18th century. Mercantilism is the belief that a country's welfare and power highly depend on the quantity of its assets (Chijioke *et al*., 2021). Mercantilism rests on the idea that governments (not individuals, because individuals are considered untrustworthy) must actively participate in transferring goods between countries to increase wealth. Consequently, the government implements a trade intervention to facilitate more

exports and restrict imports. This policy is accomplished by implementing government monopolies and trade intervention through subsidizing domestic export industries and allocating trade rights (Chijioke *et al*., 2021).

Absolute Advantage Theory

Based on Adam Smith's thoughts, a theory was issued of absolute advantage as the cause of trade between countries, with the following thoughts (Bellino & Fratini, 2022). First, a country will specialize in exporting certain types of goods and certain products, which are produced based on the absolute advantage of that country against other countries. In other words, if an item can be produced efficiently or cheaper than in other countries (having absolute advantages), then a country will export these goods. Second, a country will not produce certain types of goods in which it does not have an absolute advantage over other countries in producing similar goods. Or if a country has an absolute disadvantage against other countries in producing certain types of goods, then it is better off importing the goods than producing them. If an item is produced more efficiently and cheaper in other countries, the goods should be imported from domestically produced.

Competitive Advantage Theory

The theory of comparative advantage is a correction and a criticism of the theory of absolute excellence, which J.S. Mill and David Ricardo put forward. J.S. Mill (Bellino & Fratini, 2022) reveals that a country will specialize in exporting certain goods if it has the largest comparative advantage, and it will specialize in importing goods if it has a comparative disadvantage. A country will export goods if the goods can be produced at a lower cost and import the goods if the goods are self-produced at a higher production cost (Bellino & Fratini, 2022). David Ricardo revealed that trade between two countries will occur if each country has the smallest relative cost for different types of goods (Bellino & Fratini, 2022). So, David Ricardo's theory (Setiawati, 2021) is more focused on cost comparative advantage, where the relatively deep cost comparison Producing goods is the basis for trade between countries. In this case, the absolute cost becomes irrelevant as the only cause of international trade. The comparative advantage theory put forward by David Ricardo is based on the theory of labor value, which states that the value or price of a product is determined by the amount of time or hours worked required to produce one unit of the good (MC = Px). This theory delivers the understanding that a country will benefit from international trade (gain from trade) if it does production specialization. This matter indicates that if a country can export significant goods, these countries can produce them relatively more efficiently than other countries. Meanwhile, if goods are imported, the country produces relatively less or is inefficient compared to other countries.

Trade War

The trade war between the United States and China is one of the most serious issues, with ramifications for other nations. The effect is felt due to the global

economic slowdown, which is predicted to last until 2020 (Goulard, 2020). The impact of decreasing commodity prices on the Indonesian economy was just a 5% increase in growth. Another factor is the US-China trade war, which puts economic pressure on Indonesia and creates a drop in primary commodity prices, influencing investment and import performance (Iqbal *et al*., 2022). The era of the US-China trade war, which began in 2017 and is separated into four periods, is used as the trade war indicator in this study.

Export

Export can be defined as the transmission and marketing of goods from a local country to abroad. According to Sukirno (2015), exports are other countries' purchases of goods from local domestic companies. Because the United States maintains a trade deficit, the impact of the trade war has widened the trade balance sheet between the two countries. It resulted in a tariff war between the two nations, dropping US exports to China (Sukirno, 2015). China's profit comparison is based on the low labor wages in China, the fact that China is better at exports, and the fact that many US businesses build their products in China (Dewi, 2019).

From September 2017 to September 2018, the trade war caused the primary commodities of Indonesian exports to the United States and China, such as apparel accessories, knitwear, rubber, and others (Putri & Suhadak, 2019). It can be seen in Figure 2 below.

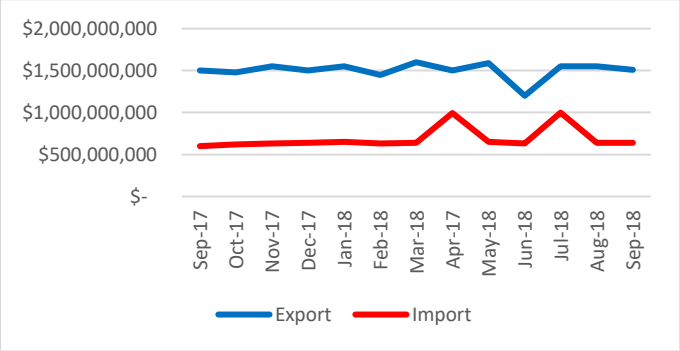


Figure 2
Indonesia's Export and Import Values towards the United States
Source: Central Bureau of Statistics (2021)

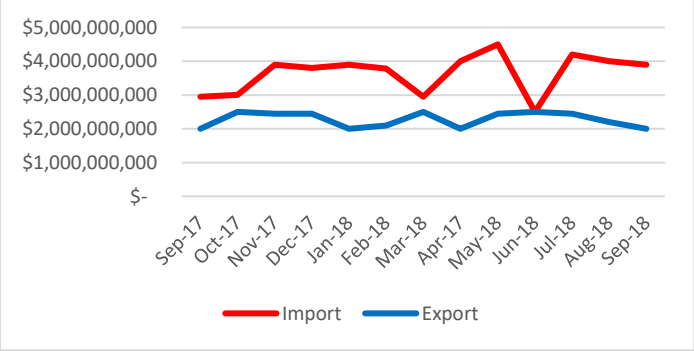


Figure 3

Indonesia's Export and Import Values Against China
Source: Central Bureau of Statistics (2021)

Exports in some countries, for example, Indonesia, are influenced by various factors that cause the export value to fluctuate every month or year. The most important factor that can affect a country's exports is the country's ability to issue goods that can compete in foreign markets (Sukirno, 2015). In addition, exports can also be influenced by factors such as real GDP and actual exchange rates. The trade war between the US and China has harmed or destroyed the Indonesian economy, particularly in the trade sector. The two countries are the leading suppliers of export goods for Indonesia. Since the trade war, the export of goods to Indonesia has decreased. Indonesia, which is affected by the trade war in the export sector, is predicted to be minus 0.24% until the end of 2019 (Cigna *et al*., 2020). Based on previous research by Henry (2020), the trade war led to various policies that resulted in declining palm oil exports, which became one of the main commodities exports (Henry, 2020). Based on these findings, the first research hypothesis can be formulated as follows:

H1: Trade war partially affects exports in Indonesia.

Imports

According to Sukirno (2015), the definition of imports is goods purchased from abroad (Sukirno, 2015). The trade war between the United States and China is the cause of the emergence of import tariff policies carried out by the two countries and impacts other countries in international trade, such as Indonesia. Imports of partner countries from the two countries have been hampered and experienced a significant decline, but the Indonesian state can anticipate this by utilizing imports from the local countries or domestic (Damuri *et al*., 2015).

The United States and China recently have become the main importers for Indonesia. Since the trade war, many tariff policies have emerged between the two countries, and several other countries have felt the impact, including Indonesia. The tariff policy will undoubtedly be very harmful to a country's economic development because the policy is designed to be beneficial for the two countries involved in the trade war. However, Indonesia anticipates this by utilizing imported goods from within the country, making imports in Indonesia remain stable even though they are affected by the trade war (Scheipl *et al*., 2020).

Several factors can influence a country's imports. According to Richart & Meydianawati (2015), the factors affecting consumer goods import in Indonesia include the Dollar Exchange Rate, foreign exchange reserves, inflation, and national income (Richart & Meydianawati, 2015). Based on previous research by Widiyanto (2019), Indonesia's imports throughout 2014 – 2018 experienced up and down growth (Widiyanto, 2019). Based on these findings, the second research hypothesis can be

formulated as follows:

H2: The Trade War partially affects imports in Indonesia.

Interest Rate

According to Kasmir (2016), bank interest is defined as remuneration provided by banks based on conventional principles to customers who buy or sell their products. Bank interest can also be interpreted as the price paid to customers (who have deposits) and paid by customers to the bank (customers who obtain loans) (Kasmir, 2016). The ongoing tension in trade relations between the United States and China will suppress world trade capacity and slow down international economic development. That's why Bank Indonesia (BI) cut interest rates to anticipate the impact of the trade war that occurred.

The urgency of trade relations between the United States and China, which is predicted to continue, could slow down trade and global economic growth. It is the reason for considering Bank Indonesia (BI) to cut interest rates. BI reduced the benchmark interest rate or BI-7day Reserve Repo Rate (BI-7DRR) by 25 basis points (bps) to 5.75%. Perry Warjiyo, governor of Bank Indonesia, stated that monetary incentives were needed to support the Indonesian economy. Central banks in developed and developing countries have more or less responded similarly to Indonesia by lowering interest rates in anticipation of the trade war.

According to Kasmir (2016), the main factors that influence the size of the interest rate-setting include the need for funds, competition, government policies, desired profit targets, period, quality of guarantee, company reputation, competitive products, good relations, and third party guarantees (Kasmir, 2016). Based on previous research conducted by Ilhamsyah (2019), the Indonesian state was more affected by the increase in fluctuating currency exchange rates because of Indonesia's position as a trading destination in Asia (Ilhamsyah, 2019). Based on these findings, the third research hypothesis can be formulated as follows:

H3: The trade war partially affects interest rates in Indonesia.

Inflation

According to Kasmir (2016), inflation continuously increases the general prices of goods in a certain period. Inflation in Indonesia since the trade war has experienced fluctuating developments. Inflation in a country can be influenced by two factors: demand-pull inflation and cost-push inflation (Kasmir, 2016).

Inflation is an indicator of economic stability in a country. Therefore, the trade war between the United States and China has a very risky impact on inflation. Inflation in Indonesia since the trade war has fluctuated up/down in the last three years. In 2017,

at the beginning of the trade war, inflation in Indonesia was at a relatively high level of 3.61%. However, the inflation rate was 2.72% in 2019 and 1.68% in 2020, indicating a decreasing inflation rate (Pangastuti & Kristianus, 2020).

Indonesia can control the inflation rate with the stability of BI's policy in maintaining balanced prices. Based on previous research conducted by Panjaitan & Wardoyo (2016), the total circulating funds and the BI Rate significantly influence inflation in Indonesia. The exchange rate, total circulating funds, BI Rate, and exports simultaneously affect inflation in Indonesia (Panjaitan & Wardoyo, 2016). Based on these findings, the fourth research hypothesis can be formulated as follows:

H4: Trade war partially affects inflation in Indonesia.

The simultaneous effect of the US-China trade war on exports, imports, interest rates, and inflation

The trade war between the United States and China has created panic experienced by almost all developed and developing countries. International trade is not conducive because many policies issued by the United States and China are considered much less profitable for the international world of trade today. Factors that greatly influence international trade are exports, imports, interest rates, and inflation. As a result of the trade war between the United States and China, the aforementioned factors became unstable and made the economy increasingly bleak.

Based on previous research conducted by Gunawan & Arfah (2019), the United States-China trade war impacted the decline of the United States' authority in Asia, especially Indonesia's and Singapore's economies. Next, the IRF (Impulse Response Function) test strengthens these findings. After the trade war, the impact on the Chinese economy also had a relatively long influence on its trading partner countries, such as Japan, Indonesia, and Singapore compared to the United States. Based on these findings, the fifth research hypothesis can be formulated as follows:

H5: The trade war simultaneously affects exports, imports, interest rates, and inflation in Indonesia.

RESEARCH METHODS

This study uses secondary data from the Central Bureau of Statistics (BPS) and Bank Indonesia (BI) in monthly publications from the variables of exports, imports, interest rates, and inflation from 2017 – 2020. The reason for choosing 2017 to 2020 is based on considerations that in the 2017 – 2020 period, the trade war between the US and China was ongoing, which had a major impact on the international economy, including the macroeconomic conditions of developing countries such as Indonesia. The US-China trade war period started from the beginning of US President Donald

Trump's administration until before the COVID-19 pandemic in early 2020.

This research includes explanatory research. According to Huy (2021), explanatory research is a study that uses hypotheses and their testing between variables that have a causal relationship in a research model. This study uses a quantitative approach method. According to Sugiyono (2015), the quantitative approach is research carried out to examine and find out from specific populations and samples, sampling, data collection, and statistical data analysis based on the ethics of positivism.

The population of this research data is monthly data from the variables used in the study, namely exports, imports, interest rates, and inflation starting from 2017 – 2020. Sampling techniques use the census method, where the population is also used as a sample. The data collection technique used in this study is a documentation technique by looking at data on the development of exports, imports, interest rates, and inflation in Indonesia from 2017 to 2020 on the official websites of BPS and BI. The independent variable (X) in this study is the trade war. A trade war is a situation where there is conflict between countries trying to compete with each other to the detriment of each other's trade. The causes of trade wars are trade tariff policies and trade practices between countries involved in the trade war. Trade wars are measured by the year between the United States and China. The period or year lasted for 4 years, from 2017 to 2020.

The dependent variable (Y) in this study is exports, imports, interest rates, and inflation. Exporting is an economic activity that involves selling products from within a country to foreign markets. Exports are measured by Indonesia's total exports abroad during the US and China trade war periods. Meanwhile, Putri (2019) said that import is related to importing merchandise from abroad. The occurrence of a trade war led to the emergence of import tariff policies carried out by the two countries involved and impacted other countries, including Indonesia. Imports are measured by Indonesia's total imports from other countries.

According to Nordström (2020), interest rates are the prices that banks and/or customers must pay as remuneration for bank and customer transactions (Nordström, 2020). The BI Rate is a policy interest rate that describes attitudes regarding policies and rules set by Bank Indonesia (BI). Inflation is a general increase in commodity prices caused by the asynchronous program of the commodity procurement system (production, pricing, printing money, etc.) and the level of income owned by the community (Nordström, 2020).

The analysis technique used in this study is the Multivariate Analysis of Variance (MANOVA). There are two models for analyzing variance: the overparameterized and average models. Model overparameterization is designed for data to be balanced so that the size of each cell must be the same (Sutrisno & Wulandari, 2018). This model shows the main effects and interactions. Meanwhile, the cell average model does not show the main and interaction effects but can use both

at the same or unequal cell size. To complete the test in this model, contrast is used to state the main effects and interactions. The cell average model can also be expressed as (Sutrisno & Wulandari, 2018):

$$X = WM + \xi \quad \text{..... 1}$$

Whereas:

$$X = \begin{pmatrix} x_{111} \\ x_{112} \\ \cdots \\ x_{abn_{ab}} \end{pmatrix} = (X_1, \quad X_2, \quad \ldots\ldots, \quad X_p) \qquad M = \begin{pmatrix} \mu_{11} \\ \mu_{12} \\ \cdots \\ \mu_{ab} \end{pmatrix} = (\mu_1, \quad \mu_2, \quad \ldots\ldots, \quad \mu_p)$$

$$\xi = \begin{pmatrix} \varepsilon_{111} \\ \varepsilon_{112} \\ \cdots \\ \varepsilon_{abn_{ab}} \end{pmatrix} = (\varepsilon_1, \quad \varepsilon_2, \quad \ldots\ldots, \quad \varepsilon_p)$$

$$W = full\ rank\ of\ ab\ is\ a\ matrix\ of\ size\ N \times (ab)$$

The MANOVA method considers the effect of the independent variable (X), the trade war between the US and China on several dependent variables (response), such as exports, imports, interest rates, and inflation. The response variable is multivariate (several variables), while variable X includes one ordinal scale variable, namely the period (year) of the trade war between the US and China. The most appropriate analysis technique is MANOVA.

ANALYSIS AND DISCUSSION

The interpretation and results of data analysis using MANOVA (Multivariate Analysis of Variance) can be seen in this section.

Table 4
Normality Test

One-Sample Kolmogorov-Smirnov Test					
		Export	**Import**	**Interest Rate**	**Inflation**
N		42	42	42	42
Normal Parameters[a,b]	Mean	1406.143	1396.952	502.381	28.048
	Std. Deviation	128.950	209.249	64.347	22.782
Most Extreme Differences	Absolute	0.131	0.113	0.189	0.168
	Positive	0.062	0.090	0.189	0.168
	Negative	-0.131	-0.113	-0.132	-0.118
Kolmogorov-Smirnov Z		0.852	0.735	1.222	1.086
Asymp. Sig. (2-tailed)		0.462	0.653	0.101	0.189
a. Test distribution is Normal.					
b. Calculated from data.					

Source: processed by researchers.

As seen from Table 4 above, the Asymp value is known. Sig. (2-tailed). The export variable is 0.462, the imported variable is 0.653, the interest rate variable is 0.101, and the inflation variable is 0.189. So, it can be concluded that the data from the four variables used in the study normally contribute because of the Asymp value.

Sig. (2-tailed) more than 0.05.

Judging from Table 5 below (line X or trade war), there are four more lines: exports, imports, interest rates, and inflation. The essence of the statement is that each line confirms the test results for the effect of one independent variable, namely the trade war on dependent variable, namely exports, imports, interest rates, and inflation. The Sig. column is significant if the Sig. value is less than 0.05 (H_0 is rejected). Trade war partially affects exports. A Sig. value of 0.003 is less than 0.05, which means H0 is rejected/H_1 is accepted. Trade war partially affects imports. With a Sig. value of 0.000 is less than 0.05 (H0 is rejected/H2 is accepted). Trade war partially affects interest rates. A Sig. value of 0.000 is less than 0.05, which means H0 is rejected/H3 is accepted. Trade war does not affect Inflation because of the Sig. value of 0.727 is more than 0.05, which means H0 is accepted/H4 is rejected.

Table 5
Univariate Significance Test (Test of Between-Subject Effect)

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
X	Export	210190.226	3	70063.409	5.646	0.003	0.308
	Import	733695.655	3	244565.218	8.755	0.000	0.409
	Interest Rate	81324.405	3	27108.135	11.648	0.000	0.479
	Inflation	711.738	3	237.246	0.438	0.727	0.033

a. R Squared = 0.308 (Adjusted R Squared = 0.254)
b. R Squared = 0.409 (Adjusted R Squared = 0.362)
c. R Squared = 0.479 (Adjusted R Squared = 0.438)
d. R Squared = 0.033 (Adjusted R Squared = -0.043)

Source: processed by researchers.

Table 6
Multivariate Significance Test (Multivariate Test)

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.997	3081.711[b]	4.000	35.000	0.000	0.997
	Wilks' Lambda	0.003	3081.711[b]	4.000	35.000	0.000	0.997
	Hotelling's Trace	352.196	3081.711[b]	4.000	35.000	0.000	0.997
	Roy's Largest Root	352.196	3081.711[b]	4.000	35.000	0.000	0.997
X	Pillai's Trace	0.977	4.469	12.000	111.000	0.000	0.326
	Wilks' Lambda	0.269	4.981	12.000	92.893	0.000	0.355
	Hotelling's Trace	1.868	5.241	12.000	101.000	0.000	0.384
	Roy's Largest Root	1.290	11.929[c]	4.000	37.000	0.000	0.563

a. Design: Intercept + X
b. Exact statistic
c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Source: processed by researchers.

Based on Table 6 above, it can be said that the test statistic used is Wilks' Lambda because there are more than two groups of dependent variables. The multivariate test results show a significant simultaneous effect between the dependent variable, namely exports, imports, interest rates, and inflation, with the dependent variable, the trade war. Because the Sig value of Wilks' Lambda is 0.000 (less than 0.05), H_0 is rejected/H_a is accepted. It can be concluded that trade war variables simultaneously affect exports, imports, interest rates, and inflation.

DISCUSSION

Partial Effect of Trade War on Exports in Indonesia

Based on the first hypothesis proposed in this study, the trade war partially affected exports. It can be concluded that the trade war partially affected exports. The cause of the effect of the trade war on Indonesia's exports is the trade balance deficit, which lowers economic growth. So, global demand declines and competition arises between countries (Iqbal *et al*., 2022). One of the causes of the decline in Indonesia's exports is that Indonesia is not fast enough to diversify export destination markets. Then, it is also due to the slow diversification of export products. Therefore, the government must look for new destinations or export countries and carry out diplomacy or economic cooperation with countries that are not involved in the trade war.

Indonesia's exports decreased until the third quarter of 2019 and only grew at around 6%, causing global uncertainty, especially in Indonesia. This is because it is affected by the existence of the trade war that occurred. Because of Indonesia's strong reliance on nations involved in the trade war, the impact of the trade war will result in a 17 drop in palm oil exports. According to BPS data, the value of Indonesian exports declined by 28.9% in May 2020 compared to May 2019. Another study also said that the Indonesian state felt the impact of the trade war, namely by decreasing exports of Indonesian paper and paperboard commodities to China by 45.69% (Mili & Retnaningsih, 2021).

According to the advice, the short-term goals should be to improve export competitiveness, stimulate the productivity of export-oriented businesses, extend and strengthen domestic and international markets, and manage imports. Improving the quality of human resources in the trade and industry sectors, utilizing research and development results, and constructing targeted infrastructure to boost productivity are all part of the long-term strategy (Taufikurahman & Firdaus, 2019).

Machinery, coal, rubber, palm oil, iron, and steel are among Indonesia's agricultural and raw material items that are most likely to be impacted by the US-China trade war. With exports of 13.7% and imports of 22.8% or 36.3%, China has a greater

influence on the Indonesian economy than the US, which exports 10.5% and imports 5.25% or 15.8%. United States exports are twice as large as United States imports (Teimouri & Raeissadat, 2019).

The third most important export is base metals and products from Indonesia to China. Tariffs on metals imposed by the US may force China to abandon other trading partners (Teimouri & Raeissadat, 2019). Indonesia has a substantial trade surplus with China, and its base metal exports to China are larger than those to the United States (OCBC Bank, 2018). Furthermore, the United States and China considerably impact export performance. The difficulty of investment in enhancing export performance in Indonesia is suspected to be due to an issue with investment structure and effectiveness (Taufikurahman & Firdaus, 2019).

Partial Effects of the Trade War on Imports in Indonesia

According to the second hypothesis offered in this study, the trade war partially impacts imports. It can be concluded that the Trade War Partially Affects Imports. The cause of the effect of the trade war on Indonesia's imports is the emergence of tariff policies carried out by the two countries involved in the trade war. So, it affects other countries, which are their export and import commodities. Imports also declined in value in April 2019. Import controls carried out by countries embroiled in trade disputes are to blame for the drop in the value of imports (Arifin & Juniawaty, 2022). Oil and gas imports and non-oil and gas imports have fallen in value (Pryanka, 2019).

Furthermore, the United States and China's trade war can be seen in the publication of a list of commodities whose tariffs have been hiked by the two countries. Office of the United States Trade Representative (USTR) lists 1,300 Chinese imports, including products from the aviation, information and communication technology, robotics, and machinery industries. China retaliated by imposing tariffs worth 25% on 106 products from the United States and divided them into 14 kinds, including soybeans, automotive, aircraft, and chemicals. So, it will affect Indonesia's imports due to the tariff policies of the two countries involved in the trade war. This study's findings align with research (Iqbal *et al*., 2022), which claims that the trade war impacts Indonesia's economic pressures and that the drop in primary commodity prices impacts investment and import performance.

The trade war between the United States and China is said to have significantly influenced global trade flows. In this regard, it is unknown how the trade war affects Indonesia's exports and imports. Reimbursing tariffs will result in lower US and Chinese exports and imports. China's exports and imports decreased faster than the US (Taufikurahman & Firdaus, 2019).

An increase in exports to the United States led to increased shipments to Vietnam, Taiwan, and Thailand. While many nations (including Indonesia) saw a drop in exports to the United States, the three countries saw an increase. According to ITC data, there was an increase in US import demand in the first semester of 2019,

primarily from Vietnam, where the year-on-year increase was 39.5%. Meanwhile, imports from Taiwan and Thailand climbed by 2.1% and 5.8%, respectively, in the United States. In Indonesia, the opposite happened: imports fell by 3.25% year over year in the first semester of 2019 (Taufikurahman & Firdaus, 2019).

The state must look at things positively by announcing various acceptable ways to cope with it, such as using this trade war as a springboard to build national capability and boost its position in global competition. Short-term and long-term strategic policies are classified into two categories. Market expansion and strengthening policies, as well as import and export volume control policies, improvement of the tax system for domestic business actors to encourage investment, improvement of the investment climate through healthy business competition, and provision of fiscal facilities tailored to the needs of investors, are among the short-term strategic policies that will be implemented to deal with the US-China trade war (Taufikurahman & Firdaus, 2019).

Partial Effect of Trade War on Interest Rates in Indonesia

Based on the third hypothesis proposed in this study, the Trade War Partially Affects Interest Rates. It can be concluded that the Trade War Partially Affects Interest Rates. The cause of the effect of the trade war on Indonesia's state interest rates is the risk of a global economic slowdown that could arise suddenly due to the trade war. BI implemented a monetary policy system or cut the benchmark interest rate to anticipate the global economic slowdown due to the trade war. Furthermore, BI will maintain its accommodative policy by relaxing macroprudential, payment system, and monetary operations. The central bank, BI (Bank Indonesia), will continue to implement its monetary policy approach to respond to the continued economic slowdown caused by the ongoing trade war between the US and China.

The BI Governor Pery Warjiyo said that the economy of the United States is expected to experience slower growth due to declining exports due to the urgency of trade interactions, minimal fiscal impetus, and weak decisions by economic actors. It also causes economic development in Europe to experience a slowdown due to declining export performance and structural problems tied to population aging, impacting domestic demand (Bariah *et al*., 2020). So, central banks in developed countries, including Indonesia, respond to the economic passion due to the trade war by implementing looser monetary policies or lowering interest rates. According to the findings of Bariah *et al.* (2020), Bank Indonesia has implemented monetary policy in the form of increasing interest rates to maintain the attractiveness of the domestic market and anticipate the outflow of foreign capital from Indonesia (Bariah *et al*., 2020). In addition, Bank Indonesia established a triple intervention program to stabilize the rupiah exchange rate, which the trade war has impacted. Another study also says that the trade war has made the economy in Indonesia less stable, especially in determining interest rates. BI cut interest rates to stabilize the economy affected by

the trade war (Taufikurahman & Firdaus, 2019).

The Partial Effect of the Trade War on Inflation in Indonesia

Based on the fourth hypothesis proposed in this study, the Trade War partially affects inflation. It can be concluded that the trade war partially does not affect inflation. The Central Bank of the United States Federal Reserve/The Fed said it would continue to monitor labor cost development as signs of rising inflation figures. However, the Fed said it did not see any signs of increased inflation from the impact or effects of the ongoing US-China trade war with several trading partners (Purwono *et al*., 2021).

The Indonesian state maintained the inflation rate increase in 2019, which was 2.72%, smaller than inflation in 2018 of 3.13%. The reason is that it could not be separated from BI's consistency in maintaining price stability and supported by a strong decision synergy relationship between BI and the government, both at the central and regional levels. In addition, aggregates are well-conditioned, exchange rates move according to fundamentals, and they positively influence rising international prices. Arifin & Juniawaty (2022) also said that the cause of the low rate of inflation is controlling the prices of commodities or goods, especially the prices set by the government or the prices of goods or services circulating in the community (Arifin & Juniawaty, 2022). This study's results follow the findings of Widjanarko (2020), which states that Indonesia's inflation during the trade war can be well controlled. This is supported by a decrease in inflation in the main groups in line with the desire for good and consistent inflation and monetary policy by keeping prices stable, well-managed aggregate demand, and little effect on global prices (Widjanarko, 2020).

The Effect of Simultaneous Trade War on Exports, Imports, Interest Rates, and Inflation in Indonesia

Based on the fifth hypothesis proposed in this study, the Simultaneous Trade War affects exports, imports, interest rates, and inflation. It can be concluded that the Trade War Simultaneously Affects Exports, Imports, Interest Rates, and Inflation. The impact of the trade war on Indonesia's macroeconomic factors, such as exports, imports, interest rates, and inflation will cause global economic growth to slow down. The reason is that the two countries involved in a trade war have set additional tariffs on commodities that have been correct and effective since the beginning of September 2019. Piter Abdullah (Director of Research of Reform on Economics (Core) Indonesia said that the slowdown in the global economy caused prices and demand for goods, which were Indonesia's main weapons exports, are getting knocked down. Therefore, one way to overcome the trade war and the global economic slowdown is by centralizing the government to manage domestic or domestic demand (Fajgelbaum & Khandelwal, 2021).

Sri Mulyani said that the United States and China's involvement in a trade war

were the cause of depressed global trade growth, and this risk would certainly impact economic conditions in various countries, especially in Indonesia. The Indonesian economy was carried away by the weakening of the global economy, which was caused by economic pressure from China. It decreases the demand for commodities (Lesfandra, 2021). Trade wars are a significant contributor to global insecurity. These factors have forced the World Bank and the International Monetary Fund to revise their forecasts for global economic growth, which are expected to slow in 2019 and 2020. The findings of this study are in line with research Darman (2019), which claims that the US-China trade war has harmed economic development in the US, China, the rest of the globe, and Indonesia (Darman, 2019).

The trade war has resulted in a new structure in trade relations with Asian countries (Ajami, 2020). This massive market between the US and China is large enough to impact other countries. The ASEAN countries are the ones that are most affected by the trade war between the US and China. Like the rest of ASEAN, Indonesia does not have significant accounts to safeguard itself. The United States and China impact Indonesian trade (Teimouri & Raeissadat, 2019). Indonesia has no big economic presence in the United States, and the two nations do not share a large corporate market. However, US tariffs on aluminum and steel will impact Indonesian industries that rely on these metals (Teimouri & Raeissadat, 2019).

CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS

According to the findings, the US-China trade war had a partial impact on export, import, and interest rate variables in Indonesia for 2017–2020, but the trade war did not have a partial impact on inflation in Indonesia. In Indonesia, the trade war simultaneously affected exports, imports, interest rates, and inflation simultaneously in 2017–2020.

The limitations of this study are only the effect of the independent variable (the US and China trade war period) on macroeconomic variables, namely exports, imports, interest rates, and inflation. The limitations of this research also include the effects of the US-China trade war on developing countries, as exemplified in this study in Indonesia. Another limitation is the research period, which is limited to the initial period of US President Donald Trump's administration in 2017 until the start of the COVID-19 pandemic in 2020.

For the next researcher, it is suggested to analyze topics and variables relevant to renewable situations and conditions trade wars between Indonesia's two largest trading partners (the United States and China), have an impact on the country's macroeconomic conditions, particularly and simultaneously on exports, imports, interest rates, and inflation, with exports, imports, and interest rates being the most affected. Indonesia must also develop for investment, particularly in the real sector, to anticipate the trade war between China and the United States. So, the impact of the

US-China trade war may be appropriately foreseen, policies must be developed, particularly in the export, import, and interest rate sectors.

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