

MACROECONOMY IMPACTS ON INTERNATIONAL TRADE BETWEEN INDONESIA AND ISLAMIC COUNTRIES

Muhammad Ubaidillah Al Mustofa^a

Imron Mawardi^b

Tika Widiastuti^c

Dewie Saktia Ardiantono^d

^{a,b,c} Department of Islamic Economics, Faculty of Economics and Business, University of
Airlangga

^dDepartment of Business and Management, Faculty of Creative Design and Business Digital,
Institut Teknologi Sepuluh Nopember

Email: muhammad.ubaidillah-2017@pasca.unair.ac.id^a ; ronmawardi@feb.unair.ac.id^b;
tika.widiastuti@feb.unair.ac.id^c; dewie@mb.its.ac.id^d

ARTICLE HISTORY

Received:

5 July 2019

Revised:

1 June 2020

Accepted:

2 June 2020

Online available:

30 June 2020

Keywords:

Country Risk,
International Trade,
Macroeconomic,
Organisation of Islamic
Corporation,
Indonesia.

***Correspondence:**

Name:

Muhammad Ubaidillah Al
Mustofa

E-mail:

[muhammad.ubaidillah-
2017@pasca.unair.ac.id](mailto:muhammad.ubaidillah-2017@pasca.unair.ac.id)

ABSTRACT

As one of the members of the Organisation of Islamic Corporation (OIC), Indonesia has excellent trade prospects. Therefore, this study has a purpose to examine the impact of macroeconomics factors on trade between Indonesia and intra-OIC countries. The variables of macroeconomics in this study consist of country risks, inflation, exchange rate, oil price, and economic growth. Quantitative is the right method for this study, applying Ordinary Least Square (OLS) regression with the help of EViews. The data used for the analysis is a time horizon with annual frequency from 1986 to 2016. Furthermore, finding shows that almost all variables of macroeconomics play an insignificant role in determining the trade between Indonesia and Islamic countries. However, the oil price is the only variable to show its contribution towards trade between Indonesia and intra-OIC countries. The results indicate that macroeconomic variables do not contribute to the key decisions for conducting trade internationally. Political factors and bilateral treaties become better variables to explain Indonesia's trade with other Islamic countries.

INTRODUCTION

International trade is defined as economic activities conducted by a resident of a country with a resident of another country on a mutual agreement through exports and imports. The trader might act as individuals, governments, or corporations. The purpose of trade between countries is to improve the welfare of the people, to supply goods and services, to achieve a balance of payments, and

others. The development of free trade in Asia is currently a challenge for Indonesia. Bearing in mind that trade between countries is increasingly unhindered, efforts are needed to strengthen commodity sales from Indonesia to other countries or in other words it is necessary to increase international trade (Rusmita & Cahyono, 2016). International trade has an essential role in generating economic development and employment. Many countries fail to benefit from international trade because of the many challenges that include distance/geography, regulations, size of the business, population, and income levels. For most countries, international trade is one of the significant factors contributing to national income. Thus, politicians and policymakers put high considerations of many factors affecting it (Dumairy, 1999; Pertiwi et al., 2019). International trade has significantly grown for the past 50 years. The significant increase in trade is the result of the low cost of shipping products, the advancement of cheap telecommunication means and changes in government policy (Tambunan, 2009). These and other improvements in technology have stimulated a decent marketplace for a business that earlier generation could only dream in the past years. In addition, many governments have encouraged policies to boost international trade. Countries around the world have signed free trade agreements, by which tariffs among signatory countries are eliminated or substantially reduced (Hubbard et al., 2011).

World Bank records, the tariff imposed in the US did not reach above 3 percent for the past decade. Bahrain had a significant decreasing trend of tariff ranging from more than 8.5 percent in 2000 to 3.6 percent in 2016, while in Egypt the tariffs slumped from 25 percent in 2000 to less than 10 percent for the last five years. Japan implement low and stable tariff rates on imported goods ranging from 2 to 3 percent for the last decade. Interesting findings come from Hong Kong, Macau, Singapore, and Switzerland where the tariffs rates are eliminated to enhance international trade and answer the demand for foreign goods. In 1981, six countries in the Gulf Area formed the Gulf Cooperation Council (GCC), allowing free trade among the member countries. On the same path, most tariffs between Canada, Mexico, and the US are eliminated following the passage of the North American Free Trade Agreement (NAFTA) in 1994. Twenty-seven countries in Europe have formed the European Union (EU), which removed all tariffs among its members to boost international trade. While in 2005, 17 Arab countries in the MENA region, including the GCC countries, signed the Greater Arab Free Trade Agreement (GAFTA) that aimed to encourage inter-Arab trades (Hubbard, O'Brien, Eid, and El Anshasy, 2011). Certainly, there have been many efforts to promote international trade and boost the economic growth.

Islam, in its teachings, does not only recognize the good relations between creatures and their Creator (Allah SWT), but Islam also emphasizes maintaining good relationships with the same human beings. Islam encouraged economic cooperation

and considered it as an implementation of God's command as stated in the Quran Surah Al-Maidah verse 2: *"And cooperate in righteousness and piety, but do not cooperate in sin and aggression. And fear Allah; indeed, Allah is severe in penalty"*. This verse provides an Islamic society with economic principals. The concept of *ta'awun* can be interpreted by meeting each individual who has different abilities and expertise to work together and achieve specific goals. Allah commands his faithful servants to abide in all kinds of goodness (*al-Birr*) and ordered to be in each other's faith in abandoning all forms of evil, sin, and corruption. This command has been put into action by country members of the Organization of Islamic Cooperation (OIC) by making several strategies and agreements to encourage trade between intra OIC country members.

The OIC is the second-largest inter-governmental organization after the United Nations with a membership of 57 states spread over four continents. The organization is the collective voice of the Muslim world. It endeavors to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world. The organization was established upon a decision of the historical summit in Rabat, the Kingdom of Morocco, on 12th Rajab 1389 Hijrah (25 September 1969) following the criminal arson of Al-Aqsa Mosque in occupied Jerusalem.

The OIC members have shown significant global trade performance (Acar, Alpay, Bakimli, & Koc, 2009). OIC members have contributed to an increase in the volume of global trade in the face of fluctuations in commodity prices and the US dollar against local currencies as well as the geopolitical and economic situation of the OIC countries. Despite minor improvements observed in 2018, contribution of OIC countries to global flow of goods and services remain below their potential (Ghani, 2011). OIC countries became a net importer of manufacturing products during 2015-2017, mainly due to falling commodity prices. In 2018, OIC countries as a group recorded a surplus again at an amount of US\$ 175 billion. On the other hand, OIC countries remained constantly a net importer of services over the period under consideration. Despite the fall in trade deficit in services during 2014-2016, it started to grow over the last two years and reached US\$ 177 billion deficits in 2018. The main players in trade of OIC member countries in 2018 were Malaysia, Turkey, United Arab Emirates (UAE), Saudi Arabia, Indonesia, Iran, Iraq, Qatar, Egypt, and Kuwait (OIC and SESRIC, 2019).

As one of the main players of trade in OIC country, Indonesia has excellent trade prospects which include socio-demographic aspect, macroeconomic trend, and industry characteristics (Konac, 2000). These three factors help the country in building the required environment to boost international trade. For the socio-demographic aspect, a growing number of populations are a primary concern of government and policymakers as more people in the country force the economy to

create new economic activities to fulfil the higher aggregate demand and provide job opportunities.

The current population of the country has reached to be around 265 million. According to projections made by the United Nations (UN), the country will have a population of more than 270 million by 2025, more than 285 million in 2035 and 290 million in 2045. Only after 2050 will Indonesia's population decrease. In addition, welcoming the arrival of 100 years of Indonesia's independence, the number of productive age population in Indonesia will reach to be more than 70 per cent of the total population. The phenomena commonly described as a demographic bonus (Gruere, Bouët, & Mevel, 2007). The high community of productive age becomes a source of human capital in boosting the economy. However, if it were failed to be adequately handled, it would no longer to be a bonus but a demographic disaster. A pleasant fact that national income per capita enjoys an increasing trend, giving a hint of improved country's standard of living. Henceforward, having a prediction of rising population and national income per capita gives a clue that the economy will demand more goods and services.

For macroeconomic factors, several aspects worth considering. Indonesia's inflation has seen to be stable and lower than 7% in years after the 2008 global financial crises. During the crises, the country succeeded to maintain its inflation to be smaller than 10%. In contrast, inflation in other countries, such as Myanmar, Cambodia, and Vietnam, has reached to more than 26%, 24%, and 23% respectively. Accordingly, looking at the growth of GDP, the country succeeded to uphold its growth around 5 to 7 per cent afterwards of the 2008 crises (Muhammad, Hye, Tiwari, & Leitão, 2013). In 2009, owing to the post-impact of financial crises, the economy performed slightly better by maintaining its GDP growth not to be negative, as it happened in neighbouring countries like Singapore, Thailand, Myanmar, and Brunei Darussalam. At the industry level, Ministry of Trade has specified ten primary commodities as major production for export that includes shrimp, coffee, palm oil, cocoa, rubber and rubber products, textiles, footwear, electronics, motor vehicle components, and furniture.

One of the methods to understand the interactions between one economy to others is by analyzing the country's balance of payment, which is considered a record of the country's trade with other countries in goods, services, and assets. Ministry of Trade is the government body responsible for publishing this record. The balance of payment that records a country's net export, net investment, and net transfers is the current account. The difference between the value of the goods a country exports and the value of the goods a country imports is the balance of trade, which can be looked at the country's current account.

Discussing the trade between Indonesia and fellow OIC member countries, intra-OIC merchandise net export suffers from negative values for most of the years

in 1986 to 2016, while the value of merchandise net export for non-OIC countries, enjoys positive values, see Graph 1. The following result gives a hint that Indonesia's economic players, including individual, corporation and government, are likely to conduct International trade with other than the OIC countries. In addition, the graph shows a significant fluctuation in the years after 1996 to the past five years. This is compounded by the trend that shows the growth of Indonesian trade with non-OIC member countries. This trend tends to decline for Indonesian trade activities with fellow OIC members. The change of macroeconomic factors, bilateral diplomacy and different political interests between Islamic countries seems to contribute to such result.

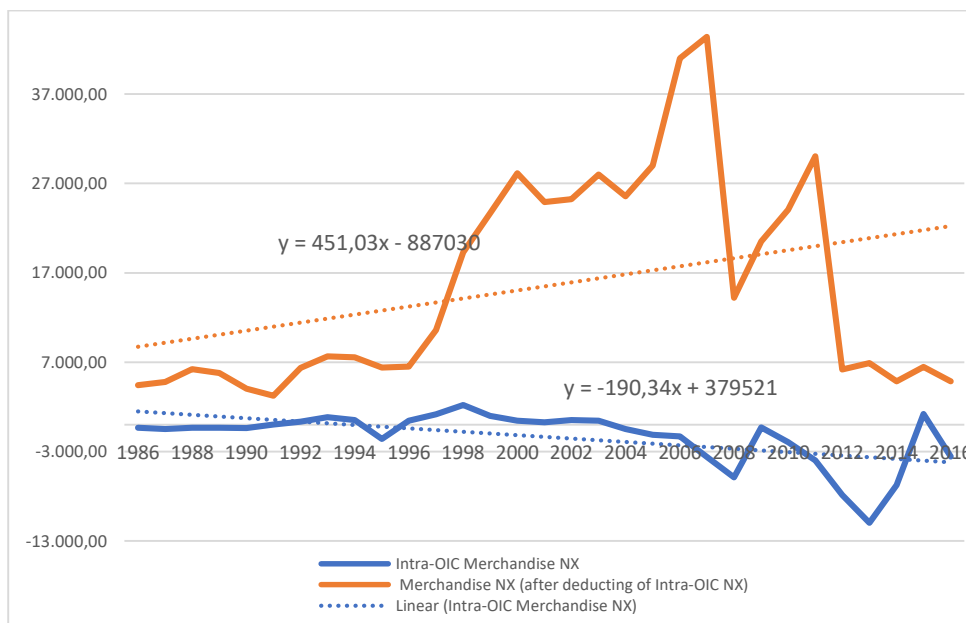


Figure 1. The Gap of Indonesia's Merchandise Net Export between Intra-OIC Countries and Non-Intra-OIC Countries
Source: SESRIC Database, 2019

The influence of macroeconomic variables to international trade has always become a popular topic of discussion of the economic and financial literacy. Madura (2010) believes macroeconomic variables such as inflation, exchange rates, national income, and government policies affect the export and import businesses. Several studies have attempted to analyze the impact of macroeconomic variables on trades and found significant effects of macroeconomic variables through different degrees (Abidin, Abu Bakar, & Sahlan, 2013; de Groot, Linders, Rietveld, & Subramanian, 2004; Gnimassoun, Joëts, & Razafindrabe, 2017; Henry & Longmore, 2003; Pertiwi et al., 2019; Uz, 2010) but the consideration of risk associated with a country has little to be seen as a determining factor of international trade.

One of the advantages of international trade activities is to attract foreign investments. A better environment of trade will attract the inflow of foreign investments. Muslim (2016) revealed that in the short-term, trade factor influences

the investors' motivation to invest directly in a country. Whereas, in the long-term, only exports influence FDI.

This study aims to assess the impact of macroeconomic factors on Indonesia's trade with a fellow member of OIC countries. The study will discover the degree of influences and its significancies for macroeconomic factors consisting of country risks, inflation, currency exchange rate, economic growth, and oil price. This study is an extension of research conducted by Pertiwi et al. (2019) that studied macroeconomic impacts on Indonesia's trade with OIC countries, and the expansion comes with the additional factor of country risks to be analysed. In particular, the country risks are derived from the economic, financial, and political risks. Governments and foreign business players are the parties who will take benefits of the study. The findings are projected to highlight the significant role of country risk and provide guidance, insights, or thoughts to assist in the establishment of policies concerning the trade activities in Indonesia.

LITERATURE REVIEW

The Concept of International Trade

There are two main aspects of determining economic growth, namely growth in total GDP output and population. An increase in total GDP output can be achieved if a country benefits from specialization activities. Specialization can be realized if a broad market is available to accommodate production. A broad market can be obtained by conducting international trade. International trade activities can be divided into two types of trade activity, namely export, and import activities. Export is an effort to sell commodities to other countries. A nation will export its products and services when the production uses cheap and abundant production factors or country specialization. This activity will benefit the country as it will increase national income, accelerate development, and economic growth. Meanwhile, imports are purchases of goods and services from abroad countries into a domestic economy. A nation will import products, goods, or production factors that are not or rarely owned by the state. This activity will benefit the country compared to self-producing these raw products with no efficiency.

Indonesia, as a developing country, is always trying to print a surplus of international trade or better known as net exports. Net export is a situation where the value of exports is subtracted from the value of imports. If net exports are positive, then it reflects the high demand for goods and services in the country, of course, this will increase productivity, leading to increased economic growth in the country. Conversely, negative net export reflects a fall in demand for local goods and services, which will cause a decline in productivity and will disrupt the pace of economic growth.

According to Madura (2010), conducting business on an international scale is justified by three theories. The theory of comparative advantage suggests that each country should use its comparative advantage to specialize in its production and rely on other countries to meet different needs. Countries like Japan and the United States have technology advantages, while countries like China, Vietnam, and Jamaica have cheap labor costs. Since these advantages cannot be easily transported, countries tend to use their advantages to specialize in producing goods that can be produced with relative efficiency. This explains countries like Japan and the United States are significant producers of computer components, electronics, and transportation means. In contrast, countries like Jamaica and Mexico are large producers of agricultural and homemade products. Madura further discusses the imperfect market theory, which suggests that because of the imperfect market, production factors are immobile, which encourages countries to specialize based on the resources they own. Cost and restrictions related to the transfer of labor and resources used for production become the underlying background of this theory. The product cycle theory suggests that after firms established in their home countries, they commonly expand their product specialization abroad country. As a firm matures, it may recognize additional opportunities to conduct trade outside its home country.

The Impact of Inflation on International Trade

Inflation is an essential factor in determining trade between countries. Madura (2010) argues, inflation signs internal economic and price stability. Higher inflation raises the cost of production as wages, and acquiring raw materials become more expensive. The value of real money falls, which usually followed by a decline in the production of goods and services at the aggregate level. High inflation indicates the failure of the government to run effective monetary and fiscal policies. Hyperinflation leads to a point where money ceases to be a useful medium of exchange and store of value. Hyperinflation makes the economy looks unattractive, and it will hamper the inflow of new investments and trade activities. If a country's inflation rate increases relative to the states with which it trades, its current account will expect to be decreased, other things being equal. Local consumers and corporations are expected to purchase foreign goods due to high domestic inflation, resulting in a decline in the country's export. Fluctuation and uncertainty in Inflation rates not only creates difficulties within the economy but also in the domain of external trade of a nation.

Agusalim (2017) believes, if a country's inflation rate increases relative to the countries with which it trades, its current account will be expected to decrease. Local consumers and corporations are expected to purchase foreign goods due to high domestic prices, resulting in a decline in the country's export. Fluctuation and

uncertainty in Inflation rates not only creates difficulties within the economy but also in the domain of international trade of a country.

The Impact of Exchange Rate on International Trade

Along with inflation, the exchange rate plays an essential role in determining trade between countries. The exchange rate is the rate at which the currency of a country could be converted into the currency of another country. The exchange rate plays a significant role in international trade. A stable exchange rate makes doing business in a foreign country easier, as profits on investments, trades, and businesses can be determined more straightforwardly. Nonetheless, fluctuations in the exchange rate could hover investors' economic decisions, making the expected profits unpredictable. When exchange rates suffer from high volatility, there is a reduction in the anticipated earnings of international firms' investments, trades, and businesses. If a currency of a country begins to rise in value against other currencies, its current account balance should decrease. As the money strengthens, local goods to be exported become more expensive relative to the imported products, resulting in a decrease in the net export. Indonesia has experience in using three exchange rate management systems from 1971 to the present (Madura, 2010).

Indonesia adopted a fixed exchange rate system. The value of the rupiah was directly linked to the value of the USD from 1971 to 1978. Since November 15, 1978, the exchange rate system has been converted to a managed floating exchange rate where the value of the rupiah is no longer solely linked to the USD, but to a basket of major trading partner currencies. The drastic change in the controlled floating policy took place on August 14, 1997, when Bank Indonesia adopted a floating exchange rate system. The change in exchange rate management will undoubtedly have implications for exchange rate fluctuations' and on the open marketplace (Zuhroh & Kaluge, 2007).

Uz (2010) conducted a study to identify the long-run and short-run impact of the exchange rate on the current account balance. The result shows that the exchange rate has a substantial effect on the current account, but the signs vary in the long and short run. A different result comes from the study conducted by Henry and Longmore (2003) that suggests the real exchange rate does not contribute a significant role in determining the vital elements of the Jamaican current account. A study conducted by Ozdamar (2015) found that real exchange rate affects Turkey's account balance insignificantly. Ginting (2013) examined the impact of the exchange rate on Indonesia's export and found that the exchange rate in the long term and short term has a negative and significant effect on Indonesian exports. This shows the importance of exchange rate policies to trigger an increase in Indonesia's exports.

The Impact Economic Growth and Openness on International Trade

Market size reflects a country's economic development. It is estimated by the Gross Domestic Product, which is a description of the value of goods and services produced by a nation within a specified year period. Higher national income illustrates the more significant revenue of people; this will influence the consumption pattern and companies' profits. Foreign business players prefer to invest in emerging economies as they expect higher returns. Higher level of national income makes people demand more foreign goods and likely to decrease the current account of the country (Madura, 2010). Openness to international trade increases the potential scale of sales in the market and increase competitive pressure. Further, business grows the captivation of knowledge and create new technologies through the spillover and research of imported products (de Groot et al., 2004). Further, a country's government can have significant effects on its balance of trade by providing policies on subsidizing exporters, restrictions on imports by putting high tariffs or lack enforcement of piracy (Madura, 2010).

The Impact Oil Price on International Trade

Oil is considered as an essential element for international trade as it is a critical factor in sustainable economic and social development. The fluctuation of oil price is a concern for countries in the world, for both producer countries (exporters) and consumer countries (importers). This is due to the role of oil as the fuel that drives the economy. Petroleum supplies are vital inputs in industrial production processes, especially to generate electricity, run machinery and transport products to the market (Nizar, 2012). Huntington (2015) studied a relation of crude oil price and current account balance and state that net oil exports are a significant factor in explaining current account surpluses but that net oil imports often do not influence current account deficits. The study further discusses rising crude oil price can decrease economic growth and stimulate flowing of a considerable amount of wealth between nations. Consumers will not react rapidly to higher prices of oil, causing oil import bills to increase quickly in the near term. On an annual basis, however, it is challenging to extract a significant effect on a country's trade deficit for aggregate goods and services. Gnimassoun et al. (2017) studied the impact of the shock in supply and demand for oil. It concludes that oil supply shock has a nonsignificant effect on the current account, while oil demand shock has a positive and significant impact, which tends to increase over time. Indeed, that crude oil's price, demand and supply contribute to the change in international trade as it affects the trade balance of the country and the flow of the economy.

The Impact Country Risk on International Trade

Another macroeconomic factor worth considering before conducting trade is a risk associated with a country. Country risk is defined as the capability of a country

to pay off its international obligations (Hoti & McAleer, 2003). Country risk includes the credit obligations in a country or all uncertainties that depend upon economic, financial, and social conditions that likely to affect the investments made in that specific country (Ahmed & Munidial, 1993). Managers of multinational corporation conduct the country risk analysis before trading within a country. The assessment of county risk is necessary for the decision-making process, such as whether a company conducts business and invests in new projects in certain foreign countries. The analysis is conducted to minimize the potential loss and maximize potential cash flows of the company. Rationally, the managers start divesting company's businesses in a country with increased risk and evade investing businesses in a country with increasing or extreme risk. As studies found that macroeconomic factors, i.e. country risk, inflation, exchange rate, economic growth, and oil price affect the flow of trade between countries, we posit that these variables affect Indonesia's merchandise net export to intra-OIC countries.

Madura (2010) further discussed common forms of political risk. Firstly, the attitude of consumers in a country is a tendency for residents to buy and acquire specific products. Secondly, government, law enforcement, and regulations may affect companies' cash flows. Afterward, War and terrorist attacks make the business cycle more volatile, exposing threats to the safety of the employees and the corporations' asset. Moreover, inefficient government bureaucracy and corruption can complicate the business process for expanding the business and investing in new projects. Some irresponsible government employees expect gifts before approving an application submitted by the companies. They make the business competition unhealthy by giving contracts or projects to companies that bribed government officials. The extreme form of political risk is that the government would take over a business without any compensation. Along with political uncertainty, financial risk represents the current and potential state of the country's economy. The demand for product, service, and commodity strongly depend on the economy of the country.

Economic growth is one of the variables used to assess the financial factor affecting the country's businesses. In some cases, the use of forecasting future economic growth is necessary for the evaluation. Madura believes that three factors influence the growth of the economy: inflation, currency exchange rate, and interest rates. Inflation affects the purchasing power as higher inflation declines the consumption of goods and services. Further, the currency exchange rate influences the demand for a product in the country. Strong currency reduces the need for the country's export, while the opposite is true. The interest rate affects the country's growth, as a higher rate tends to slow down economic growth while the low rate stimulates faster growth.

Prior Studies on International Trade

Abidin et al. (2013) investigate the impact of economic factors on bilateral exports between Malaysia and the OIC member countries. The gravity-model estimates imply the importance of size effects, level of openness of the economy, inflation rates, and the exchange rates as determinants of Malaysia's exports to OIC countries. Zainal Abidin et al. (2014) found that economic strengthening as the basis for an increase in trade between Malaysia and OIC members. The investment appears to be complementary to the trading relations in the Malaysia-OIC case. Social capital also plays a role in supporting trade.

Pertiwi et al. (2019) studied the impact of macroeconomic factors such as Inflation, Exchange Rates, Total Labor Force, Technology, Governance Factors, and Trade Openness on International Trade in 10 Islamic countries as the main actors of Intra-OKI international trade from 2005 to 2018. Using Panel Regression with the Fixed Effect Model, findings show that inflation and total labor force, government effectiveness, and trade openness have a significant positive effect on Intra-OKI international trade. This means that the better the quality of government governance and trade openness in a country, the better the country's foreign trade activities will be. Besides, exchange rates and technology do not have a significant role in Intra-OKI international trade.

RESEARCH METHODS

This study is quantitative research, which has a significant focus on testing the hypothesis (Mawardi, Widiastuti, & Sukmaningrum, 2019). The study applies the Ordinary Least Square (OLS) regression model on EViews. This method is applied to examine the impact of independent variables on the dependent variable and their significance. Indonesia's merchandise net export to intra-OIC countries will be used as the dependent variable to represent the trade of Indonesia to OIC countries. Trade data is published in the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC). The object of risk in this study is to apply and evaluate the risk assessment of the International Country Risk Guide (ICRG). It is a model used for forecasting and analyzing risk. It gives risk indicators to help with evaluation used for investment, especially in the background of international business. The risk database is created in 1980, which comprises of financial, economic, and political risk. A separate index is created for each of the subcategories. According to the ICRG Methodology (2016), the Political Risk index is based on 100 points, Financial Risk on 50 points, and Economic Risk on 50 points. The three indices' total points are divided by two to produce the weights for inclusion in the composite country risk score — a lower score of risk indicates the high level of risk and vice versa. The following table explains the variables used for the valuation of the ICRG's risk components. Each variable possesses different scores and weights of calculation. The following table explains the determinants of each risk composed in the ICRG.

Table 1
Country Risk Determinants

Country Risk Determinants	Definition
Economic Risk	GDP per Head for a given year, Real GDP Growth, Annual Inflation Rate, Government Budget Balance as a Percentage of GDP, and the balance of Current Account as a Percentage of GDP.
Financial Risk	Foreign Debt as a Percentage of GDP, Foreign Debt Service as a Percentage of Exports of Goods and Services, Current Account as a Percentage of Exports of Goods and Services, Net International Liquidity as Months of Import Cover, Exchange Rate Stability.
Political risk	Government Stability, Socioeconomic Conditions, Investment Profile, Internal Conflict, External Conflict, Corruption, Military in Politics, Religious Tensions, Law and Order, Ethnic Tensions, Democratic Accountability, and Quality of Government Bureaucracy.

Source: ICRG (2016)

The data on inflation, crude oil price, and economic growth, annual GDP percentage change represents the macroeconomic condition and are derived from the World Bank database. The data used for the analysis is a time horizon with annual frequency from 1986 to 2016. Based on the information above, the following equation one is applied in this study:

$$NX_i = \beta_0 + \beta_1 ER_i + \beta_2 FR_i + \beta_3 PR_i + \beta_4 EX_i + \beta_5 OP_i + \beta_6 GR_i + \beta_7 IN_i \varepsilon_i \dots (1)$$

Note: NX = Indonesia's merchandise net export to intra-OIC countries, β_0 = constant or intercept, β = coefficient slope, ER = Economic Risk, FR = Financial Risk, PR = Political Risk, EX = Exchange Rate of Indonesian Rupiah against USD, OP = Oil Price, GR = GDP growth, IN = Inflation Rate, $i = i$ unit, ε = residual (error term).

RESULT AND ANALYSIS

The analyses started with the classical test of data sampling. The data is in normal distribution; since the probability value of Jarque-Bera is 0.0879 and is higher than the significance rate. The Durbin Watson value is in between the value of dL and dU as $1.1092 < 1.3645 < 2.1205$, therefore, it can be concluded that the sample data used for the model is free from the autocorrelation problem. The model is free from the issue of heteroscedasticity as the probability of Glejser test equals to 0.1235 and is higher than the significance rate. The model suffers from no multicollinearity issue, and this can be known using a correlation matrix as the correlation value of one variable to other shows no more than 0.95 (see Table 2).

Table 2
Correlation Matrix

	Intra Oic Trade	Economic Risk	Financial Risk	Political Risk	Kurs	Oil Price	Gdp Growth	Inflation
Intra Oic Trade	1.000							
EconomicRisk	-0.304	1.000						
Financial Risk	-0.331	0.596	1.000					
Political Risk	-0.255	0.600	0.826	1.000				
Kurs	-0.384	-0.005	0.206	0.121	1.000			
Oil Price	-0.846	0.349	0.424	0.417	0.611	1.000		
Gdp Growth	-0.240	0.453	0.427	0.228	-0.324	0.165	1.000	
Inflation	0.303	-0.394	-0.398	-0.180	0.098	-0.268	-0.922	1.000

Source: Author's Analysis

Table 3 provides the result of the regression, and the interpretation over the model will be discussed as followings.

Table 3
Regression Result of OLS Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Economic Risk	-25.17373	109.6216	-0.229642	0.8204
Financial Risk	-112.4971	92.35841	-1.218049	0.2356
Political Risk	145.5179	80.56445	1.806229	0.0840
Currency Exchange	0.245926	0.140925	1.745088	0.0943
Oil Price	-120.3894	17.46864	-6.891741	0.0000
Gdp Growth	133.7164	307.1422	0.435357	0.6674
Inflation	24.14230	98.75229	0.244473	0.8090
C	-2236.861	3985.972	-0.561183	0.5801

Source: SESRIC and World Bank Database

Statistical finding concludes that oil price is the only macroeconomic factor that plays a significant role in determining the trade between Indonesia and Islamic countries. The value of the negative coefficient gives evidence of a negative relationship. While other macroeconomic variables have higher probability value than the significance rate of 5 per cent. Thus, other macroeconomic variable consisting of risks, currency exchange rate, GDP growth, and inflation do not contribute significantly to the decision of trade between Indonesia and other Islamic countries.

All macroeconomic variables consisting of risks, currency exchange risk, oil price, economic growth, and inflation can jointly affect the trading balance of net export of merchandise between Indonesia and other Islamic countries. The following statement comes for the result of F-test; it describes the joint hypothesis of independent variables and checks whether the independent variables influence concurrently on the dependent variable. The result shows that the F-Test probability is 0.0000, which is less than the value of all significance levels. Therefore, the finding concluded that the independent variables could conjointly affect the dependent variable. The degree of how far these independent variables could cooperatively influence the dependent variable can be measured by calculating the coefficient of determination. It is defined as the amount of the total variation of the dependent

variable in a multiple regression model that is described by its correlation to the independent variables (Groebner et al., 2014). It is denoted as R^2 and widely called as R-squared. The coefficient of determination for the model is 0.7784 and explains that more than 77.84 percent of the variation in net export of merchandise between Indonesia and other Islamic countries can be explained by the variation in the independent macroeconomic variables. The model built in this study considered quite strong to explain the variation of the dependent variable due to the high coefficient of determination.

As country risk as one of the macroeconomic variables to affect international trade, the negative influences of economic and financial risks are in line with the theory stated by Madura (2010). Rational economic players will evade conducting business and trade in a country with increasing risk. However, the finding of political risk coefficient opposes the followed theory, as it shows positive with no significant influence on the dependent variable. Moreover, the positive relation of the currency exchange rate and net-merchandise-export between Indonesia and Islamic countries opposed the theory mentioned by Madura (2010), which stated that higher exchange rate would decrease the net export, as the demand of exported goods will decrease. Further, the exchange rate does not play a significant role, at 5% significance rate, in determining the dependent variable. The insignificant influence is in line with the finding of studies conducted by Henry & Longmore (2003) and Ozdamar (2015). However, it opposes the study undertaken by Uz (2010) that found the exchange rate has the most substantial impact on the current account balance. Besides, the significant influence of oil price to affect international trade matched the finding of studies conducted by Huntington (2015) and Gnimassoun et.al (2017). The noteworthy role of oil price is highlighted as it derives in the study of Nizar (2012). The negative coefficient supports the theory of increasing oil price will lead to the decrease of net export.

The positive coefficient of national income to the net merchandise export opposed studies of de Groot et al. (2004) and the theory mentioned by Madura (2010). In theory, higher national income should increase the demand for foreign goods, making the import bills to increase and lowering the net export. However, an increase in the national income does not consider as a critical role in determining the trade account balance due to its insignificant influence on the dependent variable. A similar finding that opposes the mainstream theory is derived from inflation, which influences positively to the net merchandise export of Indonesia to OIC countries. The positive coefficient value opposes the doctrine of Madura (2010) which stated that local consumers buy more foreign goods, as domestic inflation rises, decreasing the net export.

Considering that oil price is the only macroeconomic factor that plays a significant role in determining the net merchandise export of Indonesia to Islamic

countries showed that macroeconomic variables do not contribute to the critical decisions of Indonesia to trade with the same Islamic countries. The political factor embedded in government policies, bilateral relationship and diplomacy become better variables to be taken into attention as it is stated by Madura (2010). An interesting fact to prove the importance of political factors for trade between countries can be seen from the differences in economic agreements made by H.E. King Salman from Saudi Arabia during bilateral visits to several countries in Asia and Europe. The trip ended with a commercial agreement of US \$ 65 billion with China, while Indonesia and Malaysia managed to close the economic exchange deal of US \$ 7 billion.

CONCLUSION

International trade is an essential contribution to the economy. This study aimed to analyze the impact of macroeconomic variables on international trade of Indonesia to Islamic countries. Oil price is the only variable that had significant influence and considered as a significant factor in determining the intra-trade between Indonesia and Islamic countries. Further, the results showed that macroeconomic variables seem to provide little contributions to the decisions for conducting trade with Islamic countries. Suggestion for economic players is to put all macroeconomic factors as essential considerations in the decision process of international business. Indonesian economic players need to realize the potential of conducting trade with Islamic countries, especially the participating members of OIC countries. The vast gap between the net trades of Merchandise proposed potential business activities. The OIC must design smart policies that can boost international trade between participating members. Further research needed to discover what kind of government policies contribute to significant impacts on international trade. In the issue of international trade, other macroeconomic phenomena in monetary and fiscal systems are a big field of research to discover their effects on international trade, especially for Islamic countries. Further research can apply more sophisticated statistical methods such as panel regression and gravity model to test the relationship of macroeconomic variables on trade and have more robust results.

Acknowledgments

The authors would like to thank anonymous reviewers for excellent comments and pieces of advice to improve the quality of this research.

REFERENCES

- Abidin, I. S. Z., Abu Bakar, N. A., & Sahlan, R. (2013). The Determinants of Exports between Malaysia and the OIC Member Countries : A Gravity Model Approach. *International Conference on Applied Economics (ICOAE) 2013*, 5(13), 12–19. [https://doi.org/10.1016/S2212-5671\(13\)00004-X](https://doi.org/10.1016/S2212-5671(13)00004-X)
- Acar, M., Alpay, S., Bakimli, E., & Koc, Z. Z. (2009). South—East Asian Integration in

- the Context of OIC: Implications of Free Trade among Malaysia, Indonesia and Bangladesh. *Journal of Economic Integration*, 24(1), 1–18.
- Agusalim, L. (2017). The Dynamic Impact of Trade Openness on Poverty: An Empirical Study of Indonesia's Economy. *International Journal of Economics and Financial Issues*, 7(1), 566--574.
- Ahmed, S., & Munidial, B. (1993). Appropriate macroeconomic management in Indonesia's open economy. *World Bank Discussion Papers*, 191.
- de Groot, H. L. F., Linders, G. J., Rietveld, P., & Subramanian, U. (2004). The institutional determinants of bilateral trade patterns. *Kyklos*, 57(1), 103–124. <https://doi.org/10.1111/j.0023-5962.2004.00245.x>
- Factors Affecting Current Account Balance of Turkey : a Survey With the Cointegrating Regression Analysis.* (2015). 4, 633–658. <https://doi.org/10.17261/Pressacademia.2015414533>
- Ghani, G. M. (2011). The impact of trade liberalisation on the economic performance of OIC member countries. *Journal of Economic Cooperation and Development*, 32(1), 1–18.
- Ginting, A. M. (2013). Pengaruh Nilai Tukar Terhadap Ekspor Indonesia. *Buletin Ilmiah Litbang Perdagangan*, 7(1), 1–18.
- Gnimassoun, B., Joëts, M., & Razafindrabe, T. (2017). On the link between current account and oil price fluctuations in diversified economies: The case of Canada. *International Economics*, 152(July), 63–78. <https://doi.org/10.1016/j.inteco.2017.07.001>
- Groebner, D. F., Shannon, P. W., & Fry, P. C. (2014). *Business Statistics A Decision-Making Approach Groebner Shannon Fry* (9th ed.). Pearson Education Limited.
- Gruere, G. P., Bouët, A., & Mevel, S. (2007). *Genetically modified food and international trade: The case of India, Bangladesh, Indonesia, and the Philippines.* <https://doi.org/10.22004/ag.econ.42359>
- Henry, C., & Longmore, R. (2003). *Current Account Dynamics and The Real Effective Exchange Rate : The Jamaican Experience.* (March), 1–30.
- Hoti, S., & McAleer, M. (2003). An Empirical Assessment of Country Risk Ratings and Association Models. *Journal of Economic Surveys*, 18(4), 539–550. <https://doi.org/10.1111/j.0950-0804.2004.00230.x>
- Hubbard, G. R., O'Brien, A. P., Eid, A. G., & El Anshasy, A. (2011). *Economics (Arab World)*. Essex: Pearson.
- Huntington, H. G. (2015). Crude oil trade and current account deficits. *Energy Economics*, 50, 70–79. <https://doi.org/10.1016/j.eneco.2015.03.030>
- ICRG. (2016). ICRG Methodology. *International Country Risk Guide*, 1–17. Retrieved from <http://www.prsgroup.com/about-us/our-two-methodologies/icrg>
- Konac, E. H. (2000). THE EAST ASIAN CRISIS: LESSONS FOR OIC COUNTRIES Enver Hakan Konaç *. *Journal of Economic Cooperation*, 2(2), 15–44.
- Madura, J. (2010). International Corporate Finance. In *North American Journal of Economics and Finance* (Vol. 7). Joe Sabatino.
- Madura, Jeff. (2010). *International Corporate Finance*. Joe Sabatino.
- Mawardi, I., Widiastuti, T., & Sukmaningrum, P. S. (2019). The Impact of Macroeconomic on Islamic Stock Prices: Evidence from Indonesia. *The 2nd International Conference on Islamic Economics, Business, and Philanthropy*

(ICIEBP) Theme: "Sustainability and Socio Economic Growth," 499–509.

- Muhammad, A. N. (2012). Dampak fluktuasi harga minyak dunia terhadap perekonomian Indonesia. *Buletin Ilmiah Litbang Perdagangan*, 6(2), 189–210.
- Muhammad, Hye, Q. M. A., Tiwari, A. K., & Leitão, N. C. (2013). Economic growth, energy consumption, financial development, international trade and CO2 emissions in Indonesia. *Renewable and Sustainable Energy Reviews*, 25, 109--121.
- Muslim, A. (2016). Apakah Perdagangan Menjadi Pertimbangan Investasi? *Kajian Ekonomi & Keuangan*, 20(2).
- OIC and SESRIC. (2019). *OIC ECONOMIC OUTLOOK 2019: Mobilizing Financial Resources for Development*.
- Pertiwi, R. S., Herianingrum, S., Al Mustofa, M. U., & Muhammad, M. (2019). Studi Empiris Government Effectiveness dan Trade Openness terhadap Perdagangan Internasional. *Jurnal Ekonomi*, XXIV(03), 351–368.
- Rusmita, S. A., & Cahyono, E. F. (2016). Pengaruh variabel ekonomi makro, pembiayaan dari bank umum syariah dan IKNB syariah terhadap ekspor Indonesia tahun November 2013-April 2016. *NISBAH: Jurnal Perbankan Syariah*, 2(2), 235--242.
- Tambunan, T. T. H. (2009). Trade liberalization effects on the development of small and medium-sized enterprises in Indonesia: A case study. *Asia-Pacific Development Journal*, 15(2), 35–59. <https://doi.org/10.18356/d63e6339-en>
- Uz, I. (2010). Determinants of Current Account: Relation between Internal and External Balances in Turkey. *Applied Econometrics and International Development*, 10–2, 115–126.
- Zainal Abidin, I. S., Jantan, M. D., Mohd Satar, N., & Haseeb, M. (2014). Trade linkages between Malaysia and the OIC member countries: Empirical evidence based on gravity model. *American Journal of Applied Sciences*, 11(11), 1938--1944.
- Zuhroh, I., & Kaluge, D. (2007). Dampak Pertumbuhan Nilai Tukar Riil Terhadap Pertumbuhan Neraca Perdagangan Indonesia (Suatu Aplikasi Model Vector Auto Regressive,VAR). *Journal of Indonesian Applied Economics*, 1, 59–73.