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THE IMPACT OF ONE BELT ONE ROAD AND INDONESIA-PAKISTAN PALM OIL TRADE LIBERALIZATION

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Abstract: This study focused more on analyzing the impact of the One Belt One Road initiative combined with the scenario of turning Pakistan into Indonesian palm oil trade and investment hub in the Central Asia, South Asia and Middle East Regions on Indonesia's macroeconomy. The analytical method in this study used GTAP model version 9, with reference year 2011. The results showed that the One Belt One Road initiative combined with the scenario of turning Pakistan into Indonesian palm oil trade and investment hub in the Central Asia, South Asia and Middle East Regions has led to an increase in various components of Indonesia's and Pakistan's macroeconomic variables. However, the benefits received by Indonesia in various components of macroeconomic variables are greater than those of Pakistan.

Keywords: One Belt One Road, GTAP, macroeconomy, Pakistan

Abstrak: *Kajian ini lebih fokus menganalisis dampak inisiatif One Belt One Road yang dipadukan dengan skenario menjadikan Pakistan sebagai pusat perdagangan dan investasi minyak sawit Indonesia di Kawasan Asia Tengah, Asia Selatan, dan Timur Tengah terhadap makroekonomi Indonesia. Metode analisis dalam penelitian ini menggunakan model GTAP versi 9, dengan acuan tahun 2011. Hasil penelitian menunjukkan bahwa inisiatif One Belt One Road dipadukan dengan skenario menjadikan Pakistan sebagai pusat perdagangan dan investasi minyak sawit Indonesia di Asia Tengah, Asia Selatan, dan Asia Tengah. Kawasan Timur Tengah menyebabkan terjadinya peningkatan pada berbagai komponen variabel makroekonomi Indonesia dan Pakistan. Namun manfaat yang diterima Indonesia pada berbagai komponen variabel makroekonomi lebih besar dibandingkan Pakistan.*

Kata kunci: *One Belt One Road, GTAP, makroekonomi, Pakistan*

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INTRODUCTION

The One Belt One Road (OBOR) Initiative, also known as the Belt and Road Initiative (BRI) was first announced in late 2013 by Chinese President Xi Jinping during an official visit to Kazakhstan and Indonesia (Huang, 2016; Du and Zhang, 2018). In November 2013, the Initiative was incorporated into the comprehensive reforms adopted by the Central Committee of the Chinese Communist Party. In March 2015, the NDRC, Ministry of Foreign Affairs and Ministry of Commerce in China submitted the plan for the Belt & Road Initiative (Huang, 2016) consisting of the 21st century Silk Road and Maritime Silk Road Economic Belt (Zhang et al. 2019).

One Belt One Road aims to promote economic and social connectivity, partnership, and security cooperation between China and related countries (Kwang et al. 2018). Now the members of One Belt One Road cover 65 countries, most of which are located in Asia and Eastern Europe. The Belt and Road Initiative (BRI) provides an innovative model for international economic cooperation. The Belt and Road Initiative (BRI) promotes many significant infrastructure projects, which include, for example, cross-border high-speed railways, freight railways, oil/gas pipelines, and telecommunication and power infrastructure. According to Huang (2016), the Belt and Road Initiative (BRI) is far more comprehensive than just infrastructure development which includes five priority areas of cooperation, namely (1) creating a multitiered intergovernmental mechanism for policy dialogue, (2) strengthening infrastructure connectivity, (3) facilitating trade and investment and the establishment of cross-border industrial value chains, (4) providing financial support, which includes AIIB and BRICS New Development Bank, Silk Road Fund. The last point of cooperation is to prepare several forms and mechanisms of cultural, academic and talent exchanges.

For Indonesia, One Belt One Road is an opportunity to improve export performance for leading commodities including CPO (crude palm oil) so as to improve the current account deficit. With the One Belt One Road, it is hoped that it will accelerate Indonesian CPO export through the expansion of the export markets. Currently, the realization of market destination is still focused on 'traditional' markets and there has not been much penetration into 'new' markets, such as the Middle East, Central Asia, and South Asia, which need to be focused on by all policy makers related to exports in Indonesia. Indonesia and Malaysia are the two countries with the biggest producer and exporters of palm oil globally especially traditional market. According Tandra et al. (2022) USA depends on Malaysia (74.33%) and Indonesia (23.35%) for palm oil from import shares. Moreover, Canada also depends on Malaysia and Indonesia, with 73.37% and 20.41%, respectively. Pakistan is one of the non-traditional countries that has become a strategic trading partner for Indonesia since the Preferential Trade Agreement between Indonesia and Pakistan was signed on February 3, 2012 in Jakarta. Since the implementation of the Indonesia Pakistan PTA (IPPTA), Indonesia has historically experienced a significantly increased trade surplus. Crude palm oil (CPO) is one of the top 10 export products from Indonesia to Pakistan. During the period of 2008–2017, there was a significant export development for palm oil, so it was declared as the main driver of Indonesia's exports to Pakistan (Firdaus et al. 2020).

This is certainly an opportunity for Indonesia to take advantage of turning Pakistan into a trade and investment hub. With Pakistan as an investment as well as a trade hub, it is hoped that it will provide an integrated environment with appropriate regulatory information so that it can accelerate cross border trade in intra and extra regional trades. In addition to captive market opportunity, the PRC-Pakistan Economic Corridor as part of the PRC's One Belt One Road policy that connects Xinjiang and Gwadar Port in South Pakistan is predicted to increase access to palm oil trade. Pakistan has developed infrastructure in recent years, including a well-developed network of internal toll roads, national highways, and intra-provincial roads (approximately 264,000 km), through investments related to the China-Pakistan Economic Corridor (CPEC). This policy aims to facilitate transit trade and increase market accessibility. Investments have also been made in the western provinces (KPK and Balochistan), which were previously not well-connected. In addition to that, road infrastructure as part of CPEC's western route which will be developed alongside the eastern route. The railway network and the development of new ports are relatively new investments and some projects have been completed while others are still in progress. Bin Qasim Industrial Park (Karachi) and the Gwadar Free Zone (Gwadar) are two alternatives available for Indonesia's investment in the Refinery sector.

Regarding One Belt One Road, previous studies focused more on the geopolitical perspective of One Belt One Road such as Huang's study (2016). Several studies focused on investment, efficiency and risks related to energy and water (Cai et al. 2016; Cheng et al. 2016; Duan et al. 2018; Xu et al. 2017; Han et al. 2018; Zhang et al. 2018; Shaikh et al. 2016). Based on the method used, Malle's study (2017) focused more on the cooperative behavior of China and Russia related to One Belt One Road. With Pivot, Clarke (2016) analyzed the opportunities and challenges of Eurasia China. Meanwhile, the study of Li and Hilmola (2019) was more on a literature review study related to One Belt One Road. For Indonesia, there are no studies that specifically address the issue of One Belt One Road. Studies that raise the issue of commodity-specific trade such as CPO, to the author's knowledge, have not yet been investigated.

Therefore, the objective of this study is to assess the impact of One Belt One Road and Indonesia-Pakistan trade liberalization on Indonesia's and Pakistan's economy as well as the surrounding economic regions, namely Central Asia, South Asia and the Middle East. This study was conducted by using CGE model. As Arrow (2005) argued, in all cases where the impact of the proposed policy is widespread and interlinked, there is no alternative to CGE. The main advantage of the CGE approach is its ability to incorporate interactions and consider the impact on various macroeconomic variables that are important in economic analysis (Rege, 2003). In fact, Amiti and Cameron (2012) stated that theoretical predictions of trade models such as Hecksher-Olin and Stoper-Samuelson are difficult to use in practice to establish the relationship between tariffs and wages because of complex macroeconomic shocks. However, such interrelated shocks and impacts make the CGE model more acceptable as an appropriate analytical tool (Oktoviana et al. 2017).

The contribution of this research is firstly to focus on CPO commodity which is relevant to be discussed considering that CPO is not only a food ingredient but also has the potential to be developed into various derivative commodities such as biofuel at competitive prices. CPO has become relevant as an economic and political commodity related to the issue of non-tariff barriers in several Indonesia's export destination countries. Second is the aspect of the analytical method, which in this study used the GTAP model. The GTAP model was used with the consideration that the impact of One Belt One Road and Indonesia and Pakistan palm oil trade liberalization involves many countries in Central Asia, South Asia and the Middle East where interactions between economic actors become complex and difficult to understand with the partial equilibrium model; thus, the use of GTAP Model was considered more appropriate.

METHODS

This study used a multi-regional and multi-sectoral general equilibrium model, GTAP (Global Trade Analysis Project) to analyze the impact of One Belt One Road and Indonesia-Pakistan palm oil trade liberalization as a trade and investment hub in the development of Indonesian palm oil business in South Asia and the Middle East. Based on Dixon et al. (1992) the general equilibrium model sees the economy as a complete system and has a microeconomic foundation that includes the relationship between microeconomic behavior and its parameters. The general equilibrium model is better able to capture and provide more information in seeing changes in an economic variable against other variables compared to the partial equilibrium model. The comprehensive documentation of the multi-country, multi-sectoral, computable general equilibrium (CGE) model GTAP can be found in Herzel and Tsigas (1997).

In terms of structure of production, the model assumed multiple steps in the production process. The production block requires intermediate inputs and also production factor such as land, labor, capital, and natural resources. The aggregate combination of primary factors follows constant elasticity of substitution (CES) function (Armington, 1969). There is substitution between the various sources of intermediate inputs, namely domestic and imports from each region, but there is no substitution between intermediate inputs and primary factors or among the intermediate inputs themselves. It is also assumed that the capital stock can move or be reallocated within a region, but not across borders. Labor is migratory within each region but not internationally. Each sector's outputs can be used by the government, investment, consumption, and as intermediate inputs for other sectors.

Meanwhile, each commodity is allocated in government and single representative household based on the Cobb-Douglas assumption of constant budget shares

and the constant difference of elasticity (CDE) form, respectively. Imports and exports of commodities also link the regions and domestically produces can be partially replaced by imports based on Armington elasticities (Armington, 1969). Within a region, factors of production can be categorized as perfectly or imperfectly mobile between sectors and the degree of mobility for factors of production could be adjusted. Puspitawati et al. (2017) stated that the structure of the GTAP model consists of simultaneous equations which can be grouped into two parts, namely: (1) Equations that describe the relationship between income and expenditure by each economic agent in a region (accounting relationship), and (2) equations that explain behavior. economic agents (behavioral equations). All sets, sub-sets, parameters and variables in nominal form (value/levels form) are denoted with capital letters. Meanwhile, variables in the form of percentage change or linear form are denoted in lower case letters. For example: is the level form variable for the market price of commodity i in region r, and $pm(i,r)= [dPM(i,r)]/PM(i,r)$ is the linear form of the price variable. The sets, sub-sets, parameters and variables used in the standard GTAP model are presented in the appendix. The following briefly describes the structure of the standard GTAP model sourced from Hertel (1997).

This study used GTAP version 9, with reference year of 2011. The sectoral aggregation features 57 sectors of goods and services. The aggregation of countries in the GTAP model was classified based on the level of interest of Indonesia's strategic trading partners in South Asia, Central Asia and the Middle East, as well as Indonesia's competitor in palm oil trading, namely Malaysia. In order to accommodate issues related to Pakistan's potential as an Indonesian palm oil business development hub in South Asia and the Middle East and the impact of One Belt One Road, 3 scenarios were carried out, namely: (i) Indonesian CPO Trade Liberalization in Pakistan; (ii) Indonesian CPO Trade Liberalization in Pakistan + Increased technical shipping in countries traversed by the One Belt One Road route by 5%; (iii) Indonesian CPO Trade Liberalization in Pakistan + Increase in technical shipping in countries traversed by the One Belt One Road route by 5% + Trade and Investment Hub Scheme with an increase in output from the palm oil refinery sector and an increase in Pakistan's domestic input demand at respectively 6.2% + Increase in Indonesian CPO productivity at 5.15%. In scenario 3, a combination of Indonesian CPO trade liberalization in Pakistan, an increase in technical shipping in countries traversed by the One Belt One Road route by 5%, and the trade and investment hub scheme with an increase in the output of the palm oil refinery sector and an increase in Pakistan's domestic input demand respectively at 6.2%, as well as an increase in Indonesian CPO productivity by 5.15% was submitted. The investment hub scheme was represented by an increase in production capacity of the palm oil refinery sector in Pakistan by 6.2% and an increase in Pakistan's domestic input demand for the refinery oil sector by 6.2%. The increase in productive capacity was obtained with the initial assumption that the joint venture investment in palm oil refinery in Pakistan would generate production with a capacity of 500 metric tons per day or the equivalent to 180,000 metric tons per year. The increase in production capacity would increase the fulfillment of the need for palm oil refinery in Pakistan by 6.2% from the initial value of domestic consumption of 2.9 million tons of refined palm oil (Indexmundi, 2017).

Meanwhile, the trade liberalization scenario was proxied by a decrease in the preferential tariff for Indonesian CPO in Pakistan, namely 6,800 Rs/ton or equivalent to the ad valorem equivalent of 9.2 percent. The use of this preferential tariff was predicted to increase Indonesian CPO export to Pakistan as input from the oil refinery industry and combined with an increase in Indonesia's business as usual CPO productivity by 5.15% (Directorate General of Plantations, 2018). The two exogenous variables were considered relevant to Malaysia's best practice which is considered as first mover in the implementation strategy of palm oil trade and investment hub and its derivatives in Pakistan. The framework for cooperation between Malaysia and Pakistan Closer Economic Partnership Agreement (MPCEPA) which contains CPO tariff concessions and has been implemented since 2008 has succeeded in stimulating an increase in the volume of Malaysian CPO export to Pakistan. On average, the increase in the volume of Malaysia's export to Pakistan as input from the palm oil refinery industry increased by 45.10%.

Meanwhile, the trade liberalization scenario which would increase export volume was also combined with an increase in the productivity of Indonesia's business as usual CPO by 5.15% where in 2015 the average productivity level of Indonesian palm oil for large private and small plantations had reached 3 kg/ha and increased to 3.82 kg/ha in 2018. A CPO productivity increase scheme by 5.15% is needed to ensure the

availability of domestic CPO so that there is no trade off in the country over the incentives for CPO trade relation in Pakistan (Directorate General of Plantations, 2018).

RESULTS

Pakistan's Potential as a Trade and Investment Hub in the Surrounding Regions in the One Belt One Road Initiative

The Belt and Road Initiative is China's global engagement and integration strategy, which will last for decades to come. At the current stage, it mostly includes outward investment in infrastructure, and features resource and industrial cooperation between China and countries along key routes. Its investments focus on rebuilding the 'One Belt', which is a land network linking China to Europe via Central Asia, and 'One Road' maritime route from China to Southeast Asia, South Asia, the Middle East and East Africa. This network connects Asia, Europe and Africa, and passes through more than 65 countries and territories with a population of approximately 4.4 billion and a third of the global economy. This initiative has added new impetus for China and the rest of the world to promote regional cooperation and presents many opportunities for foreign companies to get involved. China's outbound infrastructure investment is concentrated mainly in key regions including Southeast Asia, South Asia and Central Asia. All of these hotspots fall within the six B&R economic (EC) corridors.

Four of these economic corridors are mostly land routes, including the New Eurasian Land Bridge, which follows the historic Silk Road, and the new China-Mongolia-Russia, China-Central Asia-West Asia and China-Pakistan corridors. The other two corridors, the Bangladesh-China-India-Myanmar corridor and the China-Indo China Peninsula corridor form the '21st Century Maritime Silk Road' sea route. Each of these economic corridors acts as an ecosystem, facilitating nation-building and fueling prosperity. Major industrial centers are generating new energy and bringing infrastructure needs, including power generation and power grids, high-speed railways, highways, water transportation, shipping ports and new airports.

China-Pakistan Economic Corridor

One of the most extensive examples of cooperation on B&R initiative may be seen in the China-Pakistan Corridor, which stretches from Kashgar in Xinjiang, North China, to Gwadar Port, South Pakistan. The Gwadar port is also located along the fifth corridor - the sea route, connecting China with Myanmar, India and Pakistan. According to the Pakistani government, the Chinese government has committed to investments worth of USD 46 billion (which later increased to USD 62 billion), with the majority (74%) allocated to energy infrastructure such as building coal mining and power plants, oil and gas pipelines and hydropower stations, and exploring renewable energy sources. The remaining investments are expected for transportation infrastructure projects, namely railways, roads, bridges, Gwadar Port and communication, including the installation of fiber optic networks. Both the Chinese and Pakistani governments have mapped out long-term plans to 2030, with the earlier projects planned for completion in 2018 to 2020.

Impact of One Belt One Road and Indonesia-Pakistan Palm Oil Trade Liberalization on Selected Macroeconomic Variables: Indonesia versus Pakistan

The combination of the scenario of Indonesia-Pakistan CPO trade liberalization, an increase in technical shipping in the countries traversed by the One Belt One Road route and the existence of trade and investment hub (sim3) have the highest impact on increasing welfare for both Indonesia, amounting to US $ 1,829,040 million, and Pakistan, at US $ 1,737,428 million, compared to sim2 and sim1.

In terms of production, the increase in Indonesia's welfare which is relatively higher in sim3 was made possible because of the liberalization scheme of Indonesia's CPO trade to Pakistan accompanied by an increase in technical shipping in the countries traversed by the One Belt One Road route plus cooperation with Pakistan not only as a trade but also investment hub, which will reduce transaction costs, and therefore it provides more incentives for producers to increase output and encourage an increase in Indonesia's real GDP which is relatively high in sim3, namely 0.220 percent, compared to the scheme of only liberalization of Indonesian CPO tariffs in Pakistan (sim1), namely 0.000 percent, and the scheme of liberalization of

Indonesian CPO tariffs in Pakistan combined with an increase in technical shipping in the countries traversed by the One Belt One Road route (sim2), which is 0.009 percent.

For Pakistan's welfare, Indonesian CPO trade liberalization scheme in Pakistan (sim1) has not been able to increase Pakistan's welfare. However, when the liberalization scheme for Indonesian CPO tariffs in Pakistan is combined with an increase in technical shipping in the country traversed by the One Belt One Road (sim2) route, Pakistan experiences a greater increase in welfare when compared to sim1. Moreover, if the liberalization scheme for Indonesian CPO tariffs in Pakistan is combined with an increase in technical shipping in the countries traversed by the One Belt One Road route and the construction of trade and investment relations in Pakistan, it is predicted that the welfare increase for Pakistan will be relatively higher, namely at US $ 1,737,428 million. The primary cause of this is the allocation of resource which are made possible by improved transportation infrastructure. The welfare effects of trade cost reductions due to infrastructure investment are comparable to those reported by Maliszewsk et al. (2022) and Ali et al. (2022), who also discovered that Pakistan his expected to obtain significant welfare gains due to OBOR policy.

Based on Table 1, the overall simulation scheme increases Indonesia's real GDP. The highest increase in real GDP is the liberalization scheme for Indonesian CPO tariffs in Pakistan combined with an increase in technical shipping in the countries traversed by the One Belt One Road route and the establishment of trade and investment hub in Pakistan (sim3), followed by a combination scheme for liberalizing Indonesian CPO tariffs in Pakistan with increase in technical shipping in the countries traversed by the One Belt One Road route (sim2).

Table 1. Impact of one belt one road and indonesia-pakistan palm oil trade liberalization on macroeconomic variables

Indicator	Simulation	Indonesia	Pakistan
Welfare (Million USD)	Sim1	27.081	-31.173
	Sim2	617.315	140.120
	Sim3	1,829.040	1,737.428
Real GDP (%)	Sim1	0.000	-0.005
	Sim2	0.009	0.010
	Sim3	0.220	0.646
Commodity Trade Balance of CPO and Its Derivatives (Million USD)	Sim1	118.772	-75.371
	Sim2	217.885	-88.769
	Sim3	3,273.331	310.470
Household Real Consumption (%)	Sim1	0.019	-0.074
	Sim2	0.102	0.018
	Sim3	0.587	0.440
Investment (%)	Sim1	0.002	-0.052
	Sim2	0.145	0.031
	Sim3	0.242	0.100
Government Expenditure (%)	Sim1	0.018	-0.074
	Sim2	0.130	0.025
	Sim3	0.633	0.555
Export of CPO and its Derivatives (%)	Sim1	0.590	0.183
	Sim2	1.186	0.138
	Sim3	21.837	40.426
Import of CPO and its Derivatives (%)	Sim1	0.354	2.744
	Sim2	1.483	3.669
	Sim3	-5.148	-9.195

In global palm oil trade, Pakistan is a strategic destination as well as a gateway for access to Indonesian commodity market to enter Central Asia and the surrounding area. In addition, the PRC-Pakistan Economic Corridor as part of the PRC's One Belt One Road policy that connects Xinjiang and Gwadar Port in South Pakistan is predicted to increase access to palm oil trade. One Belt One Road through the "Silk Road" or "land strategy" which stretches from the People's Republic of China (PRC) through Central Asia, South Asia, the Middle East, Southern Europe, Eastern Europe to Western Europe, is increasing the trade route for palm oil. This has an impact on increasing the real GDP of Indonesia and Pakistan as well as countries in the surrounding regions.

In sim3, the combination scheme of Indonesian CPO trade liberalization in Pakistan, increasing technical shipping in the countries traversed by the One Belt One Road route and Pakistan's cooperation as trade and investment hub increase consumption, both real household consumption and Indonesian government consumption. It is possible that with the liberalization of Indonesian CPO trade in Pakistan accompanied by an increase in technical shipping efficiency in the countries traversed by the One Belt One Road route and Pakistan's cooperation as trade and investment hub, CPO and its derivatives as well as other products are available in large quantities and prices become cheaper compared to the impact of sim1 and sim2 cooperation schemes, and thus encourage consumption in large quantities. This stimulates a relatively larger consumption effect on sim3 compared to sim1 and sim2. Graphically, the Consumption Possibility Frontier (CPF) line will increase upwards, relatively higher.

For Pakistan, in sim1, both household and government real consumption have decreased. However, in sim2 and sim3 both household and government real consumption have increased. The increase in real consumption of households and the government of Pakistan in sim3 (a combination scheme of liberalization of Indonesian CPO trade in Pakistan with an increase in technical shipping in countries traversed by the One Belt One Road route and the existence of trade and investment cooperation) is relatively much higher than the Indonesian CPO trade liberalization scheme and the increase of technical shipping in countries traversed by the One Belt One Road route (sim2).

Not only consumption, another macro indicator that has increased is investment. The combination of Indonesian CPO trade liberalization in Pakistan and the increase in technical shipping in the countries traversed by the One Belt One Road route (sim2) has an impact on a relatively higher increase in Indonesia's investment at 0.145% compared to sim1 (elimination of Indonesian CPO tariffs in Pakistan) at 0.002%. The highest increase in Indonesia's investment occurred when the simulated cooperation scheme was not only limited to the elimination of Indonesian CPO tariffs in Pakistan but also combined with an increase in technical shipping in countries traversed by the One Belt One Road route and the existence of a trade and investment relation scheme where investment increased by 0.242%.

For Pakistan, liberalization of Indonesian CPO trade in Pakistan (sim1) does not necessarily encourage increased investment in Pakistan. Investment in Pakistan is predicted to increase only when a cooperation scheme for liberalization of Indonesian CPO trade in Pakistan as well as an increase in technical shipping in countries traversed by the One Belt One Road (sim2) and the elimination of Indonesian CPO tariffs in Pakistan combined with an increase in technical shipping in countries traversed by the One Belt One Road route and the trade and investment hub scheme were simulated (sim3).

The strong desire of the two countries, Indonesia and Pakistan, to increase cooperation schemes not only for trade but also for investment was captured during the 2018 CEIPO with the theme "Pakistan-Indonesia Collaboration on Palm Oil-based Industries". The event, which was held in Pakistan, was attended by 150 people from palm oil and food businesses. The Indonesian representative participants consisted of the Indonesian Palm Oil Association (GAPKI), the Indonesian Oleochemical Producers Association (APOLIN), the Palm Oil Plantation Fund Management Agency (BPDPKS), and PT Pelabuhan Indonesia. At the event, a discussion regarding the development of cooperation in the palm oil industry between Indonesia and Pakistan was developed. Furthermore, at the event there was an exchange of ideas regarding the possibility of joint investment to add value to palm oil products through investment, joint venture and bilateral cooperation in the palm oil sector. The conference also raised the discourse that together with local partners, Indonesia could build palm oil terminals at ports, storage facilities and refineries. With this investment and cooperation, it is

believed that Pakistan can become a hub for Indonesian palm oil to the South and Central Asian markets.

The wishes of Indonesian stakeholders are also welcomed by Pakistan. Currently, Sindh Province is developing three special economic zones that can facilitate the needs of investors who want to invest in the country. For information, in the province there are also two main ports, namely Karachi and Bin Qasim Ports, where 98% of Indonesian palm products are processed. Apart from that, Pakistan also has the newly developed Gwadar Port. In addition to special economic zones, the Pakistani government also provides fiscal and non-fiscal incentives for investors. These incentives include tax holidays of up to 10 years, ease of land and permits, up to 100% investment without having to involve local partners. Investors from China welcome this and are committed to increasing their investment in Pakistan (Faizal, 2018). Increased cooperation in trade and investment relations is predicted to have a major impact on the economy.

Another variable that becomes the focus at the macro level is the macro indicator of the trade balance for CPO and its derivatives. In all cooperation schemes, Indonesia experienced a surplus in Indonesia's trade balance for CPO and its derivatives. The highest surplus in the trade balance of Indonesian CPO and its derivatives is predicted to occur when the liberalization scheme of Indonesian CPO trade in Pakistan was simulated, accompanied by an increase in technical shipping in the countries traversed by the One Belt One Road route, as well as increasing access to Indonesia's trade and investment in Pakistan.

In contrast to Indonesia, Pakistan is predicted to experience a trade balance surplus when the trade liberalization scheme for Indonesian CPO in Pakistan was simulated, accompanied by an increase in technical shipping in the country traversed by the One Belt One Road route, as well as increasing access to trade and investment in Indonesia in Pakistan (sim3), which is equal to US$ 310,470. Overall, exports of Pakistan's CPO and its derivative commodities have increased, but in sim 1 and sim2, the increase in imports of Pakistan's CPO and derivative commodities is much higher, so Pakistan experiences a trade balance deficit of CPO and its derivatives.

For Pakistan, the main use of Indonesian palm oil in Pakistan's refinery industry is to be used for vanaspati (Fairus et al. 2013). Vanaspati is a fat that is widely used for various purposes such as bread making, cooking and frying which is widely used in Middle Eastern countries as well as Pakistan. One of the raw materials for vanaspati is olein derived from palm oil. The food sector is the second largest sector after textiles in Pakistan. In the non-food sector, palm oil products are widely used in the soap industry with the main raw materials being palm acid oil (PCO) and palm fatty acid distillate (PFAD) which are categorized as processed palm oil (RPO) products (Hidzir and Aspar, 2013). Pakistan's edible oil market is dominated by palm oil at 65% and the rest are other edible oils (JCR-VIS, 2018). Pakistan's per capita consumption level of edible oil (edible oil) is 23 kg/capita/year compared to the world level of 28 kg/capita/year (Tarar, et.al., 2020).

Impact on Palm Oil Refinery and Chemical Product Export: Central Asia, South Asia and the Middle East

Pakistan's exports of vegetable oils and fat (CPO, cooking oil) and chemical products (soap, cosmetics) have experienced an increase in neighboring countries due to the simulation of trade and investment relation policies implemented. This indicates a pattern of trade between Pakistan and countries in South Asia, Central Asia, and the Middle East for the vegetable oils and fat (CPO, cooking oil) and chemical products (soap, cosmetics) sectors which are stimulated by the development of the food and beverage and cosmetic industries in export destination countries. The "forward linkage" pattern is more dominant for Pakistan because the export structure is still dominated by agricultural products and other light manufacturing products. The increase in value added and competitiveness still needs to be improved so that Pakistan is able to obtain greater benefits in the global value chain. Therefore, the strategy of turning Pakistan into a trade and investment hub is considered appropriate for Indonesia to expand market access to non-traditional countries in South Asia, Central Asia, and the Middle East.

The trade and investment relation scheme will have the most significant impact on the opening of access to non-traditional market through re-export and global value chain. One Belt One Road is expected to stimulate extra-regional trade through increasing connectivity of countries in One Belt One Road which also accelerates the development of Pakistan's links to global value chains (GVC). The availability and quality of infrastructure, transportation services, and institutions

benefited Pakistan to expand opportunities for trade and investment. This scheme is comprehensively illustrated by Sim3. Ten major prospective trading partners showing the highest export increase from Pakistan are Albania, Belarus, Azerbaijan, Kyrgyzstan, Morocco, Kazakhstan, Jordan, Armenia, Qatar, and Kuwait for the vegetable oils and fat sector as well as Qatar, Nepal, Bangladesh, UAE, Tunisia, Kuwait, Bahrain, Oman, and Iran for the chemical products sector. Due to the magnitude of the increase in export of the vegetable oils and fat sector, which is much higher than that of the chemical products sector, the trade and investment relation strategy should be directed at palm oil derivative products (vegetable oils and fat) including RBDPO and Olein. In addition, the export strategy to prospective partner countries is prioritized for countries in South Asia, Central Asia, and the Middle East that already have pipeline trade agreements with Pakistan. The impact of one belt one road and indonesia-pakistan palm oil trade liberalization on exports of refined palm oil and chemical products to top ten partner countries in Table 2.

Table 2. The impact of one belt one road and indonesia-pakistan palm oil trade liberalization on exports of refined palm oil and chemical products to top ten partner countries

Refined Palm Oil						Chemical Products					
Country	Sim 1	Country	Sim 2	Country	Sim 3	Country	Sim1	Country	Sim 2	Country	Sim 3
Bangladesh	0.3512	Srilanka	0.896	Albania	66.1792	Armenia	0.3565	Qatar	2.798	Qatar	4.2372
India	0.3313	Belarus	0.8042	Belarus	65.755	Albania	0.3564	Nepal	2.4627	Nepal	3.8321
Ukraine	0.2876	Ukraine	0.6715	Azerbaijan	63.671	Georgia	0.3564	Bangladesh	2.0312	Bangladesh	3.4846
Russia	0.2849	Albania	0.5873	Kyrgyzstan	62.194	Kyrgyzstan	0.353	Indonesia	1.9744	UAE	3.1876
Tunisia	0.2812	Iran	0.5661	Morocco	61.7535	Singapore	0.3523	UAE	1.7022	Tunisia	3.0311
Georgia	0.2669	Singapore	0.502	Jordan	61.6693	Ukraine	0.3522	Tunisia	1.575	Kuwait	3.0271
Belarus	0.26	Philippines	0.4605	Kazakhstan	61.4767	Kazakhstan	0.3517	Kuwait	1.5308	Bahrain	2.9379
Kyrgyzstan	0.2587	VietNam	0.4585	Armenia	61.2813	Russia	0.3513	Oman	1.4524	Oman	2.9304
Azerbaijan	0.2581	Rest of the World	0.4554	Qatar	60.6996	Jordan	0.345	Bahrain	1.4499	Iran	2.8006
Albania	0.2561	Thailand	0.4331	Kuwait	59.4694	Morocco	0.3444	Iran	1.3208	Saudi Arabia	2.6652
Armenia	0.2555	Brunei	0.4239	Turkey	59.0866	Azerbaijan	0.3423	Saudi Arabia	1.1502	Turkey	2.3443
Nepal	0.2545	Malaysia	0.4207	Georgia	59.0362	Srilanka	0.3406	Turkey	0.8526	India	1.9813
Turkey	0.2515	China	0.3867	Bahrain	57.4861	Nepal	0.3398	India	0.5063	Ukraine	1.9286
Morocco	0.2515	Bahrain	0.3216	Singapore	57.0856	Belarus	0.3388	Ukraine	0.4032	VietNam	1.896
Egypt	0.251			Saudi Arabia	57.0144	Egypt	0.3378	Belarus	0.3895	Albania	1.8922
Saudi Arabia	0.2462			Rest of the World	56.5708	Rest of the World	0.3343	Albania	0.3214	Belarus	1.8646
Kazakhstan	0.2421			Thailand	56.0508	India	0.3339	EU_28	0.3102	Malaysia	1.8247
Qatar	0.2394			Tunisia	54.5108	Saudi Arabia	0.3339	Rest of the World	0.3081	Thailand	1.8194
Oman	0.2287			Iran	51.968	Thailand	0.3317	Jordan	0.1707	Rest of the World	1.787
Jordan	0.2262			UAE	51.4958	Turkey	0.3317	Egypt	0.0242	EU_28	1.7675
Iran	0.2206			Russia	51.473	EU_28	0.3298			Jordan	1.714
Rest of the World	0.2202			Nepal	48.4349	Bahrain	0.3279			China	1.6358
Kuwait	0.2126			Ukraine	48.3698	Iran	0.3271			Egypt	1.5373
Bahrain	0.1969			Oman	48.236	Kuwait	0.3261			Morocco	1.4826
UAE	0.1574			Srilanka	47.9989	Tunisia	0.3251			Azerbaijan	1.4135
China	0.1545			Egypt	47.4034	UAE	0.3246			Russia	1.0765
Srilanka	0.1406			angladesh	40.6432	Oman	0.3234			Srilanka	1.0735

Note:
Simulation 1: Liberalization of Indonesian CPO Trade in Pakistan
Simulation 2: Liberalization of Indonesian CPO Trade in Pakistan + Increased technical shipping in the countries traversed by the One Belt One Road route by 5 percent
Simulation 3: Liberalization of Indonesian CPO Trade in Pakistan + Increased technical shipping in the countries traversed by the One Belt One Road route by 5 percent + Trade and Investment Hub Scheme with an increase in output from the palm oil refinery sector and an increase in Pakistan's domestic input demand respectively at 6.2 percent + Increase in Indonesian CPO productivity by 5.15 percent

Managerial Implication

Indonesia needs to adopt and develop a market penetration strategy for non-palm vegetable oils to maintain and increase exports of Indonesia palm oil products in the Pakistan Market and the region area. Developing an investment hub is a prerequisite for making Pakistan a trading hub for Indonesian palm oil products by examining possible Joint Venture opportunities (brown field/green field) in more depth. Increasing Indonesia's export market in Pakistan and region area needs to be supported by direct investment from Indonesia in the Gwadar area which is the locus for the palm oil processing industry. Pakistan's import tariff reduction policy is needed to increase the competitiveness of Indonesia palm oil in Pakistan and other region. A Special promotion strategy need to be developed positive campaign about impact of consumption on health in Pakistan. Learning from Malaysia's experience in developing the export market for palm oil product, Indonesia needs to open an ITPC in Pakistan. Pakistan ITPC have to develop a roadmap that it is provide a information for market development for palm oil derivative products.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results of the analysis showed that the combination of the scenario of CPO trade liberalization from Indonesia to Pakistan, an increase in technical shipping in the countries traversed by the One Belt One Road route and the existence of trade and investment relations (sim3) has the highest impact on increasing the level of welfare and real GDP both for Indonesia and Pakistan. In addition to real GDP and welfare, other macroeconomic indicators that have increased as a result of the One Belt One Road initiative combined with the scenario of turning Pakistan into a trade and investment hub for Indonesian palm oil in Central Asia, South Asia and the Middle East are the trade balance, household consumption and government spending variables.

Recommendations

The Indonesian government must take advantage of the momentum of reviewing Indonesia-Pakistan trade cooperation to encourage wider market access for Indonesian palm oil products in Pakistan. On the basis of cooperation that provides mutual benefits for Indonesia and Pakistan, Indonesia must make efforts to further encourage import tariffs to be lower than the current position. Gwadar Special Economic Zone is a recommended trade and investment hub for the oil refining industry due to investment incentives and better connectivity levels with CPEC.

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