Introduction

The European Union (hereafter, EU) is a global power. While this claim may be doubted and heavily debated, perhaps it is generally acceptable to conclude that the EU’s impact on the world is enormous. While the major instrument of EU power is still debated, some researchers pin the source of the EU’s power to its capability to export its regulations and laws across its frontier. One of the earliest studies on this field is Anu Bradford’s (2012) article The Brussels Effect, followed by her book Brussels Effect: How the European Union Rules the World in 2020. In the article and book, Bradford posits that the EU has enormous power to shape norms, rules, and laws far across its frontier by leveraging its market size, ability, and willingness to enforce its standards, harsh standards, inelastic targets, and non-divisibility of products. In her own words:

...The EU today promulgates regulations that influence which product are build and how business is conducted. In this way, the EU wields significant, unique, and highly penetrating power to unilaterally transform global markets, be it through its ability to set the standards in competition policy, environmental protection, food safety, the protection of privacy, or the regulation of hate speech in social media... (Bradford, 2020)

Of course, the imposition does not go without a hitch between the EU’s many economic and trade partners.
As the EU wields enormous regulatory powers, numerous EU trade partners, be it states or private companies must adjust to its business standards voluntarily or otherwise to conform to the EU's regulations. Sometimes, states protested as that means increasing the cost of production and distribution that could lead products to become uncompetitive and reducing profits (Bradford, 2012).

One of the countries that conflict with the European Union is Indonesia. In the last several years, the European Union’s governing bodies have begun to pay attention towards malign practices in palm oil cultivation and its social, economic, and environmental effects (Rifin et al., 2020). Furthermore, through directive 2018/2001, the European Union has pledged to end the use of biofuels in the near future and progressively reduce the usage of palm oil. This is in accordance with the EU’s environmentally activist foreign and domestic policy (Leonard et al., 2021; for information regarding the EU’s climate action and "green new deal" see European Commission, n.d.). The European Parliament even singles out Indonesia’s palm oil environmental problems as one of the reasonings for revising the EU’s policy towards palm oil in its resolution in 2017:

F. [sic] whereas the wildfires of 2015 in Indonesia and Borneo were the worst observed for almost two decades and occurred as a result of global climate change, land-use changes, and deforestation; whereas the extremely dry conditions in the regions in question are likely to become more common events in the future, unless concerted action is taken to prevent fires;

G. [sic] whereas the wildfires in Indonesia and Borneo exposed 69 million people to unhealthy air pollution and are responsible for thousands of premature deaths;

H. [sic] whereas fires in Indonesia are typically the result of the clearing of land for palm oil plantations and other agricultural uses; whereas 52 % of fires in Indonesia in 2015 occurred in carbon-rich peatlands, turning the country into one of the largest contributors to global warming on Earth (European Parliament, 2018)

Indonesia has submitted a complaint to the World Trade Organization (hereafter, WTO) about this trade impediment (Palm Oil Monitor, 2020) and the WTO has set up a panel to investigate and determine whether the EU's actions has violated WTO rules (World Trade Organization, n.d.). As of the writing of this article, the review process is still underway.

However, the unilateral ban still has enormous effects nonetheless as many companies tend to avoid exposure to the political risk of continuing the usage of palm oil and the procurement of palm oil that is cultivated with harmful methods (for explanation about political risk please see Rice and Zegart, 2018). Therefore, since most of Indonesia’s palm oil fields are owned by small cultivators (Wicaksono, 2021) and the difficulty of small cultivators to comply with the rigorous EU standard, the author argues that the EU’s move against palm oil would be detrimental to the Indonesian palm oil exportations to the EU. This research aims to uncover the impacts of the Brussels effect to the sale of Indonesian palm oil to the EU.

What are the effects of the EU’s palm oil resolution in 2016 on Indonesian palm oil exports to the European Union? What makes the Brussels effect so potent in affecting countries that are not even part of the EU? In order to present the arguments in this article clearly, the author would utilize the following section to explain the Brussels effect as well as discussing several academic journals on the Indonesia-EU palm oil dispute and attempts to insert the Brussels effect into the Indonesia-EU palm oil debate. In the next section, the writer would explain the research methodology used in this research. After explaining the methodology, the author would present a data of Indonesia’s palm oil exports to the EU from the year 2013 to 2019 in order to compare Indonesian palm oil export to the EU pre-2016 and post-2016 with data provided by the Indonesian Central Statistics Bureau (BPS, Badan Pusat Statistik). The result shows that Indonesian palm oil export to the EU drops by more than one-third from 2015 to 2016. In the concluding section, the author would conclude this article and elaborate recommendations for further research.
Literature Review

According to Bradford (2020), the Brussels effect is the ability of the EU unilaterally to export, directly or indirectly, its regulations and laws across its frontier so that it affects citizens and companies not living or located in the EU. For example, even though a company is legally headquartered in Singapore and has its production sites in Indonesia, Vietnam, Cambodia, Kenya, India, and Bangladesh, the company still has to implement EU laws as long as it exports its products to the European Union.

The idea of the Brussels effect comes from the trade phenomenon of the ‘California effect’ in the United States. As California is extremely attractive in the United States due to its big population and market size, with some involvement of the economies of scale, many US companies end up using the strict regulations of California as their standard for all of their products, even products that are not destined for California (Vogel, 1997).

The proliferation of the global supply chain helps increase the potency and the reach of the Brussels effect. Given that a company can spread out its products across the globe (for example, Nutella’s palm oil is cultivated in Malaysia, its cocoa is planted in Nigeria, and its sugar in Brazil (Bhandari, n.d.)). Companies doing business in the EU have to ensure that all these production sites in different corners of the Earth have to adhere to European standards in order to maintain the company’s access to the European market. Sometimes, even countries try to adopt European laws to reduce adaptation costs of doing business in their countries for European companies, thus increasing its Foreign Direct Investment (FDI) from European companies (Bradford, 2020).

In order to explain the novelty of EU laws and the reason EU laws could be so globalized, Bradford (2012) argues that it is due to the combination of 5 factors that work in tandem to make European laws extremely potent:

1. Market size

One of the reasons companies try to stay on the EU’s good graces is due to the big potential market size of the European Union. Due to the EU’s market integration, a company could gain access to a market with 446 million inhabitants. Furthermore, in general, the EU population has a substantially big income with $34,000 per capita, making it a high-income economy. This makes the European Union one of the most valuable markets in the world for companies (Bradford, 2020). The value of the EU market makes it extremely costly for companies to quit the EU market to avoid EU regulations and it entices aspiring companies that want to enter the EU market to follow EU rules. Furthermore, the EU market size and potential forced companies around the world to stay on the EU’s good sides and avoid political risks (see Rice and Zegart, 2018).

In spite of this, market size alone is not enough as other countries boast a bigger and high-income population than the EU. The following table lists ten economies with the highest GDP (nominal):

<table>
<thead>
<tr>
<th>Economies</th>
<th>GDP Nominal ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>20,936,600.00</td>
</tr>
<tr>
<td><strong>European Union</strong></td>
<td>15,192,652.40</td>
</tr>
<tr>
<td>China</td>
<td>14,722,730.70</td>
</tr>
<tr>
<td>Japan</td>
<td>5,064,872.88</td>
</tr>
<tr>
<td>Germany</td>
<td>3,806,060.14</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2,707,743.78</td>
</tr>
<tr>
<td>India</td>
<td>2,622,983.73</td>
</tr>
<tr>
<td>France</td>
<td>2,603,004.40</td>
</tr>
<tr>
<td>Italy</td>
<td>1,886,445.27</td>
</tr>
<tr>
<td>Canada</td>
<td>1,643,407.98</td>
</tr>
</tbody>
</table>

Source: World Bank, 2021a
Table 1 deliberates clearly that even though the EU is among the 3 world largest economy, the EU is not the
economy with the highest nominal Gross Domestic Product. The United States’ GDP is more than $7 trillion
more than the European Union.

The following is a list of ten countries with the highest GDP (PPP):

Table 2. Economies by GDP (PPP), 2020

<table>
<thead>
<tr>
<th>Economies</th>
<th>GDP (PPP) ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>24,273,360.03</td>
</tr>
<tr>
<td>United States</td>
<td>20,936,600.00</td>
</tr>
<tr>
<td>European Union</td>
<td>19,922,967.73</td>
</tr>
<tr>
<td>India</td>
<td>8,907,027.65</td>
</tr>
<tr>
<td>Japan</td>
<td>5,328,033.47</td>
</tr>
<tr>
<td>Germany</td>
<td>4,469,546.28</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>4,133,083.56</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3,302,376.91</td>
</tr>
<tr>
<td>Brazil</td>
<td>3,153,596.67</td>
</tr>
<tr>
<td>France</td>
<td>3,115,307.33</td>
</tr>
</tbody>
</table>

Source: World Bank, 2021b

Likewise, Table 2 also shows that although the EU is among the top 3 of the world biggest economy in terms
of GDP (PPP), the European Union is not the country with the highest GDP on Purchasing Power Parity basis.
The United States and China boast higher GDP than the European Union.

Tables 1 and 2 shows that the European Union is one of the world’s largest markets. However, it is not the
largest market in the world. Depending on how one measures the world’s largest economy, the United
States and China rank higher than the EU as China has a higher GDP in PPP terms as well as 3 times the EU’s
population, and the United States has a higher GDP nominal, GDP PPP, and GDP per capita. As a
consequence, other factors have to be taken into consideration.

2. Regulatory capacity

The capacity and the willingness of the EU regulators to enforce EU laws and regulations is also one of the
potent causes why EU laws and regulations could be exported across the EU frontier. For example, the EU has
the power and willingness to open an antitrust investigation into Apple, a US multinational technology firm.
The European Commission accuses apple of monopolizing the content on its apple store and that

...Apple sets the rules for the distribution of apps to users of iPhones and iPads. It appears that
Apple obtained a “gatekeeper” role when it comes to the distribution of apps and content to
users of Apple’s popular devices. We need to ensure that Apple’s rules do not distort competition in
markets where Apple is competing with other app developers... [emphasis added] (Vestager,
2021 quoted in the European Commission, 2021)

This demonstrates the strictness and the non-discriminatory ability and willingness of the EU to enforce its
rules, even against a powerful multinational corporation headquartered in the United States, is a warning to
all companies that enter the European market, big and small, that there will be no tolerance for any violation
of EU laws.

A country must have both the willingness and the capacity to enforce its rules equally and non-
discriminatory. Without the former, a company can just bribe an official or entice it by other means to be able
to get a leeway and some sort of exemption to the country’s rules. This is where China lacks as Ang (2021)
argues that corruption and bribery is extremely prevalent and that companies could regularly bribe Chinese officials for access to credit and bypass red tapes. Without the latter, the regulators could not do anything as, even though they have the willingness to enforce its rules, they lack the ability and capacity to do so.

The European Union has invested enormous powers in the European Commission, the European Council, the European Court of Justice (ECJ), and the European Parliament to implement EU laws and regulations. Due to the bias for integration that is present in all of these bodies, they have the willingness and the capacity to enforce EU laws and regulations to safeguard and maintain the smooth flow of goods in the European Union and to strengthen the EU economic integration (Bradford, 2020). This is further enhanced by the gradual increasing handover of regulatory powers from the EU member states to the EU institutions. “EU institutions have acquired these increased powers as a result of the need to further integrate the common market and maximize gains from deeper integration.” (Ibid)

3. Stringent regulations

According to Guasch and Hahn (1997), there is a positive link between a country’s income level and their appetite for a strong environmental, social, economic, cultural, and health regulations. Due to their high-income levels, developed countries’ citizens have the willingness to spend more money in order to ensure consumer protection and welfare, even at the expense of company profits (Bradford, 2020).

This is clearly prevalent in the EU as a high-income nation. However, the United States is also a high-income nation. Why don’t countries and companies follow the United States instead? This is where the EU and the US’ regulatory trajectory diverges. Article 2, sub-article 3 of the Lisbon Treaty clearly sets a premium on governmental and EU involvement in the economy of the EU:

The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.

It shall combat social exclusion and discrimination, and shall promote social justice and protection, equality between women and men, solidarity between generations and protection of the rights of the child.

It shall promote economic, social and territorial cohesion, and solidarity among Member States.

Furthermore, many EU founding member states (Germany and France in particular), have a strong preference for government intervention in the economy (Heyward, 1972; Kirby & Wallace-Hadrill, 2019). This is, of course, in contrast with the approach of the United States, which emphasizes the primacy of the role of market mechanism in the economy with governmental involvement not substantially desired (Dullien, 2007).

In addition, in contrast with the US, the EU adheres to the principle of precaution. This means that even if there is a small possibility that the products may affect human health, the EU would take action to mitigate the risks, even if the risks are microscopically small to prevent any Europeans from being harmed in the first place (Bradford, 2020). This is the direct opposite to those of the United States, which relies on judicial litigation proceedings and damage lawsuits to ensure that companies comply with consumer welfare protection (Rose-Ackerman, 1991) and relies on cost-benefit analysis to determine whether a regulation should be put in place.

The stringent EU regulations give further incentives for companies to comply with EU laws. As EU laws and regulations are one of the toughest and strictest in the world, fulfilling EU regulations would almost
automatically give companies’ products access to other less-stringent markets and fulfill their requirements without needing to make substantial changes and adjustment in the production and distribution system. To simplify this argument, consider the case of three universities’ English language requirements: University A requires that a prospective student has a minimum grade of 7 in their IELTS test, University B requires a minimum grade of 6.5, and University C requires a minimum grade of 6. Logically speaking, the prospective student would aim to get a 7 in his IELTS test as the student will fulfill the requirements of three universities if he fulfills the requirement of University A. The same logic is generally applicable to the Brussels effect, albeit with some exceptions.

4. Inelastic targets

Another factor that is contributing to the Brussels effect is that EU laws target inelastic subjects. Specifically, the EU regulates consumers in the EU member states that are inelastic and EU consumers are tied to the EU regulatory regime (Bradford, 2020). Therefore, if a company wishes to export products to the EU, the company would have to follow EU consumer regulations to access EU consumers, even if the regulation of the country that the factory is located is less strict. EU citizens cannot just leave the EU in order to enjoy less strict regulations. In the words of Bradford (2020): “The inelastic nature of consumer markets does not leave producers with a choice regarding the jurisdiction; they cannot “shop” for favorable regulations without losing access to the regulated market.”

This is in contrast with elastic targets such as capital or labor standards. One of the most prevalent repercussions of trying to regulate elastic targets is the increasing prevalence of ‘tax heavens’ where the targets can escape to (Dharmapala & Hines, 2009). Capital, due to their highly elastic nature, could easily move from one place to another. Therefore, capital owners could easily transfer their wealth to tax heaven, such as the Cayman Islands or Panama instead of storing them in the United States. Another example of elastic target regulation concerns ship registration. A huge amount cargo and cruise ships flew what is called ‘flag of convenience’ (Bernaert, 2006/1988). Even though the company that owns the ships may be headquartered in London, for example, there is a great possibility that the ships are registered in countries that offer laxer regulations on ships (e.g., sailors’ wages, safety regulations, etc.) (Ibid). Therefore, companies can register their ships in one of these flag of convenience countries (e.g., Liberia and Panama) and follow the regulations of the flag of convenience countries.

5. Non-divisibility of products

The final factor that makes EU regulations so potent is that they regulate production and distribution process of products that are non-divisible, either due to the technological impasse that limit companies from separating two production and distribution processes (technical non-divisibility), the inefficiency and high economic cost of dividing a production and distribution process (economic non-divisibility), or the legal impossibility of separating one division of the company from another (legal non-divisibility) (Bradford, 2020).

For technical non-divisibility, sometimes it is extremely improbable and outright impossible to divide one production process from another. Therefore, the principle of the most stringent regulation applies (Bradford, 2020). If a production process cannot be separated and the production process serves many different markets with different standards and regulations, the market with the strictest regulation would prevail as if the production process fulfilled the requirements of the most stringent market, then the product will automatically fulfill the requirements for the lesser stringent markets. One example of this is a farmer that raises cow to be butchered and its meat exported. It would be impossible to put different standards of treatment to different parts of a same cow.

In the case of economic non-divisibility, even though it is possible to use two different production and distribution lines, it would not be economically efficient or profitable to separate them. This is due to the
prevalence of the economies of scale. Krugman et al. (2012) argue that sometimes production processes are more efficient and cheaper if it is being done at a large scale. As a consequence, it would not be profitable if, for example, a company decides to make a separate line of production that is only to be used to serve a small market as the price of the product would be expensive and thus unprofitable.

Lastly, sometimes companies are non-divisible legally. Due to the existence of a company in multiple countries, a company would have to follow the laws of the strictest country as it would automatically apply to the rest of the less-strict countries (Bradford, 2012). The most prevalent example of legal non-divisibility is regarding company mergers. In this case, the toughest regulator in which the company operates in or gets to serve its market gets to decide whether the merger could go ahead, even if the merger involves two non-European companies (Bradford, 2020). For example, even though Illumina Inc and Grail Inc are US pharmaceutical companies, the EU has the power to order them not to merge (Chee, 2021). Therefore, the whole Illumina Inc and Grail Inc around the world could not merge at all as the companies are non-divisible. The only alternative would be to exit the EU market in its entirety.

Once all of these factors are fulfilled, the Brussels effect would take place. They give the EU the power to unilaterally shape global trade, production, and distribution conducts. Without one being present, the Brussels effect would fall apart. For example, without a big market, a company could just leave the EU entirely because of high standards that would reduce profits. Without regulatory capacity to enforce its laws, companies could just bribe EU officials to be able to be given access to EU markets with flawed products. Without stringent regulations, companies would follow the country with the most stringent regulations as getting access to that market would also enable the country to fulfil EU market requirements. If the target is elastic, then the regulation target would just escape somewhere else that has more lenient laws. Lastly, if a product is divisible, then the companies could just make a separate production and distribution line only to serve the EU market, while having a laxer production and distribution standards on the other production and distribution line.

The author decides to use the data from 2019 to 2019 to better explain the condition of Indonesian palm oil exports before and after 2016. While the EU resolution that bans palm oil itself was passed in 2017, the deliberations on it actually started at least the previous year. As a consequence, knowing that the European Parliament will pass a resolution on palm oil soon, the palm oil-importing companies began to prepare themselves for that eventuality.

Additionally, the author would like to explain the two different methods of spread of the Brussels effect (Bradford, 2020):

1. *De facto* Brussels effect
   
   *De facto* Brussels effect refers to the action of companies that internalize the rules and regulations of the European Union even in the absence of similar government regulations in their home countries or countries where the factories are located. Companies do this for a number of reasons, most notably to take advantage of the economies of scale and the fact that EU rules and regulations apply to the entirety of the production and distribution processes of products destined for the EU. Kraft stopped using the “Yellow 5 and Yellow 6 dyes” in favor of natural food coloring as those food dyes are banned in the EU, even though those dyes are still legal under the terms of the US Food and Drugs Administration (FDA) (Kravitz, 2017). Another example is the removal of azodicarbonamide chemical substances from Subway sandwiches as azodicarbonamide is banned as a material to be put in foods even though azodicarbonamide is still allowed by the US' FDA (Kravitz, 2017).

2. *De jure* Brussels effect
   
   *De jure* Brussels effect is the internalization and implementation of EU laws and regulations into a country’s legal system through domestic laws after a ratification of a treaty with the EU or by voluntarily passing a law
that is using an EU law as a template. According to Bradford (2020), this could manifest via a number of means. For example, companies can lobby other governments to raise the standards in the country so that the companies can still compete with other domestic companies or through the ratification of international treaties with the EU. However, countries can also domesticate EU laws and regulations on their own. One reason is to be more compatible with EU regulations so that countries can attract foreign direct investment as companies that invest there do not have to face an expensive adjustment cost. Another reason could be simply that EU regulations could be easily copied by other countries (Bradford, 2020). One example of de jure Brussels effect is the attempt by the Indonesian parliament to pass the Private Data Protection Bill (RUU Perlindungan Data Pribadi) in which it refers to the EU’s General Data Protection Regulation as a template (Kustiasih, 2021). Yet, whether this is a result of lobbying, international treaties, or just voluntary copycatting is unknown.

Despite the fact that the Brussels effect plays some role in the EU-Indonesia palm oil row, it is not heavily explored in the contemporary debates on Indonesia-EU palm oil trade, with many academic research journals focusing on the impacts of this trade dispute, with the dynamic flow of activities leading up to the enactment not being discussed or only laid out briefly. Furthermore, sometimes they only talk about one of the factors that make the Brussels effect so potent without bringing the rest of the factors into consideration. For example, Arifin and Putri (2019) has the following paragraph to explain the dynamics leading up to the adoption of the 2017 European Parliament resolution on palm oil:

It was begun [sic] with the draft report and continue to several debates and vote in Parliament. The EU initiative report is apparently took [sic] voting results in April 2017, which reveals major MEPs approved or was in favor with resolution accounts 640 MEPs. In addition, 18 MEPs were against with the resolution and 28 MEPs abstained from voting. By the end of the voting, the resolution will bring to EU Commission to respond as the consideration of EU legal framework. Moreover, the resolution also gets the supports from several European NGOs, which also contribute on voting on April 2017. These NGOs including Friends of the Earth Europe, Global Witness, Fern, Zero, Transport and Environment and etc. [emphasis added]

From that extract of Arifin and Putri (2019), it is evident that the European Parliament, and the European Union in general, takes into account the stances and opinions of Non-Governmental Organizations (NGOs) and Civil Society Organizations (CSOs) in formulating its decisions, reflecting the democratic nature of the decision-making procedure in the European Union. In the specific case of the European Parliament, the NGOs were not only taken into account, but also allowed to vote on the resolution, which brings with it greater legitimacy for the resolution. However, the journal does not take into account how the European Union would actually compel Indonesia to do so.

Differently from Arifin and Putri (2019), Robertua (2019) does take into consideration the way the EU uses its market power as leverage against Indonesia in order to compel Indonesia to comply with EU regulations, albeit only briefly:

The EU used its internal market to change Indonesian behaviour [sic]. This is in line with Postnikov’s article that the EU used its trade policy to force its partners to ratify multilateral environmental agreements (Postnikov, 2018). Postnikov (2018, p. 61) argued “Trading with countries that have lower environmental standards than the EU can also put European producers at a competitive disadvantage, which means concerns about levelling the playing field are part of the EU’s motivation to promote high environmental standards outside of its borders”. [emphasis added]

Furthermore, Oosterver (2019) wrote on the de facto Brussels effect in action vis-à-vis palm oil in European companies, ways European companies took to avoid political risk, and reasons some European companies
adopted the stringent EU regulations as their across-the-company standard, while not discussing whether European companies can make a separate production and distribution line to avoid standardizing EU regulations across the entire company (non-divisibility):

An important regulatory change in the EU for the use of palm oil in food is Regulation 1169/2011 on the Provision of Food Information to Consumers (Novelli, 2016). This regulation required the manufacturers of vegetable oil containing products to indicate the category of vegetable oils they use on the list of product ingredients and no longer use the general category of ‘vegetable oil’ ...

The introduction of this regulation also proved an incentive for manufacturers to either substitute palm oil by a less controversial alternative or to choose certified palm oil in order to avoid consumer or NGO criticisms (Ruggeri and Samoggia, 2018). For this reason, companies ... expressed they intend to only use traceable certified palm oil. This way they tried to protect their business reputation and this is also why their main concern is to avoid using palm oil that can be connected to deforestation which is the central issue in the public debate. [emphasis added]

On the other hand, Zulkarnaen (2019) notes the EU’s protectionist strategy to protect its internal companies and producers against cheap palm oil imports from Indonesia:

According to international palm traders, RED [Renewable Energy Directive] is one of the EU’s strategies to protect local vegetables and reduces import dependence. The EU restricts the palm oil export activity which creates specify standards on import of goods including health, safety, environmental, licenses, labeling, and others. It would be a dangerous impact on free trade if trend protectionism applied to other countries

The same suspicion is also brought forward by Robertua (2019) in which that the Government of Indonesia suspects that the palm oil restriction is “based on the EU’s protectionist policy on European rapeseed. The dispute between Indonesia and the EU on palm oil is not only about environmental concerns but also business concerns.”

Even though all of the assertions and arguments mentioned beforehand certainly have merits to it, they all only manage to research about only one or two aspects of the Brussels effect, while, in order to take into effect, the Brussels effect would need a concert of all the factors working together in order to be so potent. The author argues that a discussion on the influence of the Brussels effect on Indonesia’s palm oil sale to the EU have to be researched in its entirety by taking into account all the factors that have been explained in the previous part.

This research is important for two reasons. Firstly, while previous researches have unearthed some of the causes of the Brussels effect, the author finds that the causes previously mentioned, by themselves, would not be enough to compel companies to follow EU regulations in their procurement of Indonesian palm oil. Secondly, it is important for EU-Indonesia trade relations and EU influence to be analyzed using the perspective of the Brussels effect and take into account the Brussels effect factors in its entirety and their relations with each other.

**Methodology**

This study uses the positivist ontology, epistemology, and methodology by utilizing data from the Indonesian Central Statistics Authority (BPS, Badan Pusat Statistik) in order to chart the growth and the decline of exports of crude palm oil from Indonesia to the European Union from 2013 until 2019. The amount of palm oil shipped to the EU and the dollar value of the palm oil exports would be tabulated. 'Amount', in this article, equates to the total weight of crude palm oil exports measured in tons. Furthermore, the movement of amount and dollar value of palm oil exports to the EU would be charted. The amount of overall Indonesian palm oil exports would also be put to see whether the Brussels effect is truly impactful to Indonesia’s palm oil export industry. As a consequence, this article uses quantitative research method as it mostly relies on quantifiable data numbers.
Impact of the Brussels Effect on Indonesian Palm Oil Export to the EU

A. Declining palm oil exports to the European Union in 2016

The subsequent table tabulates the total amount of palm oil exported to the EU from 2013 until 2019:

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>2,455,270</td>
<td>1,908,627</td>
<td>2,441,551</td>
<td>1,394,272</td>
<td>1,344,931</td>
<td>1,308,419</td>
<td>1,740,286*</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-</td>
<td>29,483</td>
<td>36,000</td>
<td>53,999</td>
<td>21,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>1,094,673</td>
<td>866,087</td>
<td>1,044,091</td>
<td>680,073</td>
<td>615,548</td>
<td>615,447</td>
<td>462,259</td>
</tr>
<tr>
<td>France</td>
<td>227,740</td>
<td>109,693</td>
<td>170,280</td>
<td>167,642</td>
<td>130,395</td>
<td>73,704</td>
<td>78,806</td>
</tr>
<tr>
<td>Germany</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4,000</td>
<td>164,949</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Denmark</td>
<td>10,870</td>
<td>6,086</td>
<td>4,960</td>
<td>1,219</td>
<td>2,800</td>
<td>5,500</td>
<td>3,500</td>
</tr>
<tr>
<td>Italy</td>
<td>683,552</td>
<td>601,648</td>
<td>578,864</td>
<td>250,384</td>
<td>356,503</td>
<td>380,769</td>
<td>206,554</td>
</tr>
<tr>
<td>Spain</td>
<td>421,572</td>
<td>276,017</td>
<td>581,375</td>
<td>236,855</td>
<td>215,685</td>
<td>228,999</td>
<td>821,718</td>
</tr>
<tr>
<td>Portugal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>5,219</td>
<td>2,015</td>
<td>1,250</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
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<tr>
<td>Sweden</td>
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<tr>
<td>Bulgaria</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>11,644</td>
<td>-</td>
<td>24,215</td>
<td>4,100</td>
<td>3,000</td>
<td>-</td>
<td>2,500</td>
</tr>
<tr>
<td>World Total</td>
<td>6,584,732</td>
<td>5,726,820</td>
<td>7,788,550</td>
<td>5,283,953</td>
<td>7,076,069</td>
<td>6,554,495</td>
<td>7,401,796</td>
</tr>
</tbody>
</table>

Source: Badan Pusat Statistik, 2014; 2015; 2016; 2017; 2018; 2019; 2020

Table 3 exhibits the total volume of Indonesian palm oil exports to the European Union, individual members of the EU, as well as the world total. It can be inferred from Table 3 that the top 5 European customer of Indonesian palm oil are the Netherlands, Germany, Italy, Spain, and France. It can also be inferred that the most precious customer for Indonesian palm oil has shifted from the Netherlands in 2013 to Spain in 2019. In 2013, Dutch palm oil purchases amounted to roughly 45% of all Indonesian palm oil exports to the European Union. In 2016, Indonesian palm oil export to the European Union plummeted by nearly 50% compared to 2015 by only exporting 1.3 million tons of palm oil, the majority of which still went to the Netherlands. Palm oil exportation to the EU continued to drop to 2018 before rebounding to 1.7 million tons of palm oil exports in 2019. In that year, Spanish Indonesian palm oil purchase jumped fourfold as Spain was the destination of nearly half of Indonesia’s European palm oil exports. France had also emerged as one of the major Indonesian palm oil consumers from buying a negligible amount in 2018 to buying 164,949 tons of Indonesian palm oil the next year.

It is clear from Chart 1 that from 2013 until 2015, Indonesia’s palm oil export to the EU stood at around 2.2 million tons per year. However, Indonesia’s palm oil export to the European Union plummeted by more than a third in 2016 after the European Parliament began to debate the sustainability of palm oil which caused companies to decrease its palm oil imports from Indonesia to avert political risk (for discussion on political risk see Rice and Zegart, 2018). Nevertheless, Indonesia’s palm oil sale to the EU show sign of recovery as it is continuing to increase post-2016 to around 1.7 million tons in 2019, albeit still below pre-2016 levels. The dollar value of Indonesian palm oil exports to the EU from 2013 to 2019 also shows the similar story.
Chart 1. Volume of Indonesia’s Palm Oil Export to the EU (Tons)

Table 4. Dollar Value of Indonesian Palm Oil Export to the EU (000 US$)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>1.875.797</td>
<td>1.433.783</td>
<td>1.415.593</td>
<td>858.917</td>
<td>897.413</td>
<td>750.394</td>
<td>979.6843</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-</td>
<td>24.663</td>
<td>21.681</td>
<td>35.658</td>
<td>15.675</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>832.439</td>
<td>641.516</td>
<td>600.082</td>
<td>424.593</td>
<td>415.656</td>
<td>350.863</td>
<td>234.430</td>
</tr>
<tr>
<td>France</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.420</td>
<td>83.514</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Germany</td>
<td>177.078</td>
<td>85.662</td>
<td>96.565</td>
<td>105.204</td>
<td>92.076</td>
<td>45.393</td>
<td>41.531</td>
</tr>
<tr>
<td>Belgium</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Denmark</td>
<td>8.338</td>
<td>4.967</td>
<td>2.674</td>
<td>884</td>
<td>1.755</td>
<td>3.051</td>
<td>1.809</td>
</tr>
<tr>
<td>Italy</td>
<td>529.877</td>
<td>455.262</td>
<td>340.498</td>
<td>150.431</td>
<td>231.394</td>
<td>221.856</td>
<td>106.752</td>
</tr>
<tr>
<td>Spain</td>
<td>315.382</td>
<td>208.144</td>
<td>338.527</td>
<td>139.889</td>
<td>138.607</td>
<td>126.811</td>
<td>430.160</td>
</tr>
<tr>
<td>Portugal</td>
<td>-</td>
<td>2.070</td>
<td>261</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>3.983</td>
<td>1.616</td>
<td>700</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
<td>-</td>
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<tr>
<td>Sweden</td>
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<tr>
<td>Bulgaria</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>8.700</td>
<td>9.884</td>
<td>14.405</td>
<td>2.258</td>
<td>2.250</td>
<td>-</td>
<td>1.488</td>
</tr>
</tbody>
</table>

Source: Badan Pusat Statistik, 2014; 2015; 2016; 2017; 2018; 2019; 2020

By using the dollar value, the Netherlands was Indonesia’s biggest palm oil market, comprising nearly half of the total worth of the EU palm oil market in 2013. The Netherlands would remain Indonesia’s primary palm oil market in Europe, albeit the Dutch palm oil market worth was declining year after year. In 2019, the Dutch palm oil market position was taken over by Spain as the dollar value of Indonesia’s palm oil to Spain jumped nearly three-fold from 2018 to 2019.
It is clear from Chart 2 that the dollar value of Indonesian palm oil export to the EU falls even more dramatically from 2013-2019 with the dollar value of Indonesian palm oil export in 2018 only stood at 40% the currency value of Indonesia’s palm oil export in 2013. In addition, for reasons that are going to be discussed later in this article, even though the volume of Indonesian palm oil exports has shown signs of recovery according to Chart 1, the dollar value of Indonesian palm oil export is still way below pre-2016 levels. This shows that the Brussels effect is extremely potent in reducing Indonesian palm oil exports to the European Union as even though the European Parliament only passed resolution 2016/2222 on 4 April 2017, the deliberations leading up to the passing of the resolution is enough to spook the palm oil market and made European companies stopped or reduced their exposure to Indonesian palm oil exports.

B. Effect of the Brussels effect on Indonesia's total palm oil exports

Even though the Brussels effect successfully reduced Indonesia’s palm oil export to the EU by a substantial amount, its effect on total volume of Indonesian palm oil exports (i.e., Indonesia’s palm oil export to the entire world) was less severe.
It is visible in Chart 3 that even though Indonesia’s total palm oil export plummeted from nearly 8 million tons in 2015 to slightly above 5 million in 2016, it was able to make a quick and powerful rebound in 2017 to 7 million tons. Even though the volume Indonesia’s total palm oil export volume dipped by a small margin in 2018, it recovered quickly and has effectively recovered in 2019. The reason? Indonesia was able to find alternative export market for its palm oil, with Asian countries taking a huge bulk of Indonesia’s palm oil exports immediately after 2016:

Chart 4. Volume of Indonesian Palm Oil Export to Asian Countries (Tons)

Source: Badan Pusat Statistik, 2014; 2015; 2016; 2017; 2018; 2019; 2020

Seeing Chart 4, even though palm oil exports to Asia dipped from just above 5 million tons in 2015 to around 3.8 million in 2016, the recovery was relatively fast as Indonesia’s palm oil exports to Asian countries surpassing 2015 levels in 2017 to around 5.4 million tons. Even though exports dipped in 2018 to around 5 million tons, palm oil exports increased again in 2019. With Asian countries buying Indonesia’s palm oil products, Indonesian palm oil export has effectively recovered in 2019 as, according to Chart 3, the total volume of Indonesia’s palm oil exports has nearly matched the total volume in 2016 even though, according to Charts 1 and 2, Indonesia’s palm oil export to the EU has not yet recovered.

However, given that in 2016, palm oil exports to Asian countries also faced a downfall, one might argue that Indonesia’s drop of palm oil exports in 2016 were caused by problems in supply, not demand. According to this line of argument, perhaps it is the Indonesian side that failed to produce enough palm oil to be exported. While it is true that Indonesia experienced El Nino that hampered palm oil production for a time being in 2016 (Sari, 2016), data from the Food and Agricultural Organization (FAO) that were published by Our World in Data shows that Indonesia’s palm oil production faced no diminution from 2015 to 2016 in spite of the fact that world palm oil production faced a decline in the same period:

Chart 5. Indonesia and World Oil Production (Tons)

Chart 5 emphasizes that even though Indonesian and world palm oil production increased year after year from 2011 to 2015, world palm oil production was reduced by a bit in 2016. In spite of this, in the same year, Indonesia’s palm oil production was not affected in a major way as it was still producing as much palms oil as in 2015.

Thus, due to the plummeting world palm oil production, Indonesia should be able to fill the gaps left as its palm oil production does not face a diminution. However, referring to Charts 1, 3, and 4, it is clear that it does not happen. Consequently, given that Indonesia does not face a severe supply problem, it is clear that there is some sort of problem with palm oil demand. In addition, while one could argue that the high price of palm oil results in the reduction of palm oil demand due to high prices, Chart 8 reveals that the average annual palm oil price in 2016 and 2017 was not abnormally high. Finally, according to Shahbandeh (2021), global palm oil consumption had actually increased from the 2015/2016 period to 2016/2017 period:

**Chart 6. World Palm Oil Consumption from the 2015/16 Period Until 2020/21 Period (Metric Tons)**

![World Palm Oil Consumption from the 2015/16 Period Until 2020/21 Period](chart6.png)

Source: Shahbandeh, 2021

Chart 6 clearly shows that world palm oil consumption was rising quickly from the 2015/16 period until the 2018/19 period from just below 60 million metric tons in the 2015/16 period to about 75 million metric tons in the 2018/19 period before stagnating until the 2020/21 period. Studies conducted by Barthel et al. (2018) further confirms that world consumption of palm oil had increased exponentially in the lead up to 2015.

Therefore, given that the only major phenomenon in 2016 and 2017 that could disrupt the production and export of Indonesian palm oil products was the EU ban, with France and Germany taking the lead (Munthe et al., 2017), it is quite clear that it is the EU ban that was influential. The reason that Indonesian palm oil exports to Asia also took a hit was due to the complicatedness and outreach of global supply chain with production plants located all around the world. As a consequence, as these production plants are also located in many Asian countries (Nestlé, for example, has 8 manufacturing plants in India alone (ENS Economic Bureau, 2015) and precured many of their palm oil supply from Indonesia through Wilmar international (Batato, 2016), a company that was singled out by Amnesty International (2016) for allegedly employing child labor in their palm oil plantations), and, due to the Brussels effect companies worldwide have an incentive to follow EU regulations, companies stopped, or at least reduce, buying Indonesian palm oil products.

For instance, Nestlé and Unilever stopped contracts with environmentally-problematic palm oil suppliers in 2016 (Nestlé, 2016; Taufik, 2016). Even though EU regulations were not cited as one of the reasons and the confession was that many environmental NGOs campaigned against them, it is possible that due to the activeness and the influence of the NGOs in the European Union, the company cut their ties in order to extricate...
themselves from the threat of lawsuits in European courts and to prepare themselves for an even tougher EU regulations on palm oil (for explanation regarding environmental lawsuits in the European Court of Justice see Grušić, 2016).

C. The discrepancy of the volume and dollar value of Indonesian palm oil exports

Notwithstanding the recovery in the volume of total palm oil exports, the dollar worth of Indonesian total palm oil export shows a less rosy story:

![Chart 7. Total Dollar Value of Indonesian Palm Oil Export (000 US$)](chart)

Source: Badan Pusat Statistik, 2014; 2015; 2016; 2017; 2018; 2019; 2020

Chart 7 reveals that the dollar value of Indonesian palm oil exports dropped significantly from $5 billion in 2013 to just above $4 million in 2014 year, stagnated in 2015, and declining even further to around $3,3 billion in 2016. Even though the dollar value nearly reached 2013 levels in 2017, it dropped again in 2018 to around $3,6 billion and stagnated in 2019.

In order to understand this discrepancy between the total dollar value and the volume of exports, we need to remember and take into account that crude palm oil, just like crude oil, are measured in international prices with the prices fluctuating every day. Therefore, even though the volume of Indonesian palm oil increases, it does not mean that the dollar value will automatically increase as well. The following chart shows the annual average price per metric tons of crude oil from 2014-2025.

![Chart 8. Average Annual Price of Crude Palm Oil (US$/Metric Tons)](chart)

*: Projected

Source: O’Neill, 2021
2014 was actually the year when the average crude palm oil price was at its highest for at least another 6 years. In spite of this, the average price fell harshly in 2015 before creeping its way up in 2016 and 2017. Nevertheless, the price dropped again in 2019 before skyrocketing in 2021. It is projected, however, that the average crude oil price would remain stable at 2021 level until 2025.

That said, it is clear that even though the volume of palm oil export could rise, if it is coincided with a fall of crude palm oil prices, the dollar value would not increase in a correlative manner. It is also contingent on the price of crude palm oil at the time.

Conclusion

The Brussels effect is one of the most potent weapons that the European Union can use to advance its goals, for better or for worse. It can be empirically proven that EU regulations have wide-ranging effects on the production and distribution of products as well as the operational conduct of companies around the world, even though they are not a European company or do not have an office in the European Union. Leveraging its market size, strict regulations, regulatory capacity, inelastic target of the law, and the indivisibility of production and distribution process and the indivisibility of operational conduct of enterprises, it can impose its rules and wills on companies and states around the world through the de jure and de facto Brussels effect.

Previous researches, in particular those that the author has cited in the ‘literature review’ parts, shed some lights on why and how the EU and palm oil-importing companies choose to internationalize EU regulations and follow them. Thus, previous researches on this matter are accepted and supported. However, the issues that are raised in the cited publications are not enough on its own to cause such tremendous impact on Indonesian palm oil exports to the EU.

From our discussion in the previous section, it could conclusively be said that the Brussels effect on the EU palm oil regulation has a negative impact to the volume and dollar value Indonesia’s palm oil exports to the European Union in 2016, when the European Parliament began deliberations and debates over future palm oil legislation in its territory. To avoid political risk and dependent exposure to Indonesian palm oil exports, companies reduced the amount of Indonesian palm oil purchases. Even so, the total volume of Indonesia’s crude palm oil worldwide is not harshly impacted as it has generally recovered in 2019. However, the total dollar value of Indonesia’s palm oil exports tells a different story as the price of crude palm oil also plays a part in determining how much Indonesia earns from its yearly palm oil exports.

Indonesia should think pragmatically and adopt EU palm oil regulations and internalize it through Indonesian national laws. While this might anger some nationalists, the author believes that Indonesians, especially those living and working around the palm oil plantations, would benefit from the implementation of the EU palm oil regulations. For example, given that the EU bans the use of fire to clear up some plot of forest to be used as palm oil plantations, it would actually benefit Indonesia if Indonesia does not burn the forests as it would be costly to put the fires out, smears Indonesia’s environmental reputation, and safeguarding the health of those living around the palm oil cultivation area.

In addition, given that EU regulations are among the strictest in the world, if Indonesia fulfils the EU requirements, then Indonesia would automatically fulfil the requirements for other markets too. Thus, it is possible that by implementing EU regulations, Indonesia’s palm oil export destination would expand as Indonesia would also fulfils other markets’ requirements.

For future researches, perhaps it is recommended for other scholars to investigate the political process behind the EU’s legislation of palm oil regulations in the EU and the technicalities of how companies try to mitigate the effect of continuous exposure to Indonesian palm oil. Furthermore, supplementary research should be made in regards to the effect of the COVID-19 pandemic on Indonesia’s palm oil exports, both to the EU and around the
world. The research could be regarding the effect of individual consumption of European individuals during COVID-19 to the Indonesian palm oil exports. Furthermore, if we refer to Chart 8 and O’Neill (2021), it can be concluded that the price of crude palm oil is predicted to rise exponentially to more than $1000/metric ton. Studies regarding this could explain about the potential revenues and risks that Indonesia faces in the coming years. Lastly, in regards to the awakening of world governments to the environmental dangers of palm oil, research could be done regarding the effect of continuous Indonesian dependence on palm oil exports.

Acknowledgements

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References


Author Biography

Trystanto is an undergraduate student of International Relations at Universitas Gadjah Mada (UGM). He has an interest in international political economy and development, US-China relations, Chinese foreign relations, US politics, and EU politics and foreign relations. As of the writing of this article, he serves as the vice-head of the Research and Development division of Foreign Policy Community Indonesia chapter UGM, and as a teaching assistant for the Academic Writing course. He can be contacted via e-mail: trystanto@mail.ugm.ac.id

Endnote

1 This article uses the word ‘economy’ rather than ‘country’ to clarify that even though the European Union could be counted as a single country economically due to the extremely high level of economic integration, it is still not legally a country. However, a country will automatically be an economy, but the vice-versa is not true. For example, The United States is both an economy and a country while the European Union is only an economy, not a country. To be more inclusive, the term ‘economy’ is used.

2 Data from 2019

3 International English Language Testing System (IELTS) is a common internationally-recognized English proficiency test

4 Sometimes, EU regulations could be completely contradictory with those of other countries’ policy. For example, in the case of China, cosmetics must be tested on animals (Gallon, 2021) while in the EU, cosmetics must not be tested on animals (European Commission, 2016). As there are two contradictory regulations, companies would have to have two different testing methods in place for each market.

5 Logically speaking, it would be impossible if, for example, the tenderloin part could be insulated and injected with a banned substance in the EU, for example, but expect that the sirloin part of the same cow would not be affected and could still be exported to the EU.

6 It would be impossible if, for example, Illumina Inc and Grail Inc in Europe are not merged while Illumina Inc and Grail Inc in the United States are merged.

7 Due to the high operating costs because of the Brussels Effect, in which companies have to follow the strict EU regulations, these companies can be in a disadvantage compared to other domestic companies that does not export products to the EU as the multinational corporations have to charge more for the items that they produce to cover the production cost, while domestic companies can only follow more lenient domestic regulations. To ensure that the multinational company remain competitive in the domestic market, the multinational companies could lobby the government so that other domestic companies also have to raise their standards and their production costs.

8 According to Badan Pusat Statistik (2020), the total amount of palm oil exported to Europe is 1,749,186 tons. However, this includes the total volume of palm oil exported to Russia (8,900 tones). As Russia is not a member of the EU, 8,900 is subtracted from 1,749,186. The result is 1,740,286

9 According to Badan Pusat Statistik (2020), the total dollar value of palm oil exported to Europe is $984,210,000. However, this includes the total dollar value of palm oil exported to Russia ($4,526,000). As Russia is not a member of the EU, $4,526,000 is subtracted from $984,210,000. The result is $979,684,000