

The Impact of Indonesia's Government Tin Policies Sn 99,9% Towards the Global Market

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Abstract

This research aims to see how government policies regarding the standardization of tin with Sn 99.9% content affect the condition of Indonesian tin and its impact on the global tin market. This research uses the concept of a global production network. This research focuses on strategy and dynamics in the tin industry. This research uses secondary data obtained from news, reports, and previous research that discusses the Indonesian tin industry and primary data obtained through interviews with relevant parties that influence policy formation, then analyzed using the explanatory method. This research shows that the policy of Sn 99.9% content in tin affects the condition of Indonesian tin. The main reason for establishing this policy is to protect the availability of tin raw materials. The price of tin with a Sn 99.9% higher content makes for superior profits. The impact of standardization of tin content tends to be positive because Indonesia can directly sell tin without reprocessing it. On the other hand, the entry of tin products with a content of Sn 99.9% into the global tin market has increased the availability of tin supply. This condition certainly makes customers no longer dependent on one supplier. Customers in the global market can also buy directly from Indonesia. However, in some situations, other factors affect the state of the tin market.

Keywords

Sustainability Global Tin, Tin Supply Chain, Global Tin Production, Global Tin Market .

1. Introduction

The covid-19 virus spread since early 2020 has changed human behavior and habits quite a lot. This condition certainly impacted the declining economic conditions in the first quarter of 2020, but these conditions gradually recovered (TIMAH 2020). One industry that has seen its development is the electronics industry, which is increasing because people need additional electronic goods during the social distancing period at home (Elisabeth 2021). Tin is one of the industries that has risen because tin is the raw material needed for producing electronic goods. As one of the global tin suppliers, Indonesia certainly has a significant role in meeting this demand. As is known, Indonesia currently occupies the second position as the largest tin-producing country in the world after China (ICDX 2021). According to data obtained from the Indonesia Commodity & Derivatives Exchange, the domestic industry only uses five percent of the total production of 70 to 80 thousand metric tons annually. This data reveals that most of Indonesia's tin production is distributed overseas (Ibrahim et al. 2018). On the other hand, since 2015, China has had a policy of using their tin production to support the production of several other domestic industries (Irzon 2021).

This policy forced China to limit its tin exports to the global market. The Chinese government set this policy because China has many companies that are advanced enough to produce various products that require tin as a component. This condition forced China to limit their tin exports to the global market, which also affected the supply chain because previously, China was the largest tin producer and supplier in the global market. However, the amount of tin production from Indonesia, the second-largest tin producer after China, can also meet the demand that comes from the global market. This condition illustrates that even though China has limited the number of their exports, the sustainability of the global tin supply chain is still running and available because there are other producers in the market. These factors prove Indonesia's current position as the largest tin supplier globally. The picture below is top 10 refined tin producers.

2018 Top 10 Refined Tin Producers

Refined tin production (tonnes)



Order	Company	2017	2018	YOY Change (%)
1	Yunnan Tin (China)	74,470	77,789	4.5%
2	PT Timah (Indonesia)	30,249	33,444	10.6%
3	Malaysia Smelting Corp (Malaysia)	27,211	27,086	-0.5%
4	Yunnan Chengfeng (China)	26,800	22,900	-14.6%
5	Minsur* (Peru)	18,033	18,345	1.7%
6	Jiangxi Nanshan Tin (China)	5,500	12,220	122.2%
7	EM Vinto (Bolivia)	12,637	11,369	-10.0%
8	Thaisarco (Thailand)	10,601	10,544	-0.5%
9	Metallo (Belgium)	9,651	9,328	-3.3%
10	Guangxi China Tin (China)	11,499	9,219	-19.8%

Data: Provisional data reported to ITA and rounded to the nearest 100t. Final figures may vary

*Excludes production from Minsur's Brazilian subsidiary, Taboca

Figure 1. Top 10 refined tin producers

The amount of refined tin production shown in the figure 1 above shows that Indonesia is the largest producer of refined tin globally after China. The data shown in figure 1 explains that the number of products produced by China is twice as much as in Indonesia. However, as previously mentioned, the production amount is distributed to China's domestic production. This condition makes Indonesia one of the primary producers who distribute their refined tin production to several countries in the global market. To meet global market demand, of course, the thing that must be considered is the amount of production that meets the demand from the market. However, the amount of refined tin produced by Indonesian producers tends to fluctuate from year to year. Along the way, the Indonesian tin industry has experienced ups and downs. This is because it is influenced by several aspects, including the surrounding conditions, the availability of natural resources and various government policies that regulate the production and sale of Indonesian tin. Bangka Belitung Island has become the largest tin-producing area since the Sriwijaya Kingdom, England to the Netherlands (Nur 2016). They are aware of the enormous potential of tin and predict it will become a very advanced industry.

The condition of Indonesian tin has changed and has grown since the exploitation by the colonialists until it was managed by PT TIMAH Tbk. and several private tin producers in Indonesia. Since 1967, the tin industry has become one of the most closely monitored commodities, starting from the mining of tin ore to the export process, this is due to the type of centralized government (Indra 2014). At that time, there were not as many companies producing tin as they are today. However, the policy has changed since 1998, the government did not include tin as a commodity that was closely monitored by the central government (Purnaweni et al. 2019). Conditions at that time made many people interested in managing mines and factories (smelters) personally which was then supported by the local government through Regional Regulation Number 6 of 2001 (Indra 2014). The changes in conditions described previously had a significant impact with the increase in Indonesia's tin production volume from the previously able to meet 15 percent, increasing to 37 percent of the total global tin demand (Ibrahim et al. 2018a). The figures 2 and 3 below is a graph of Indonesia's refined tin production and exports 2011-2020.

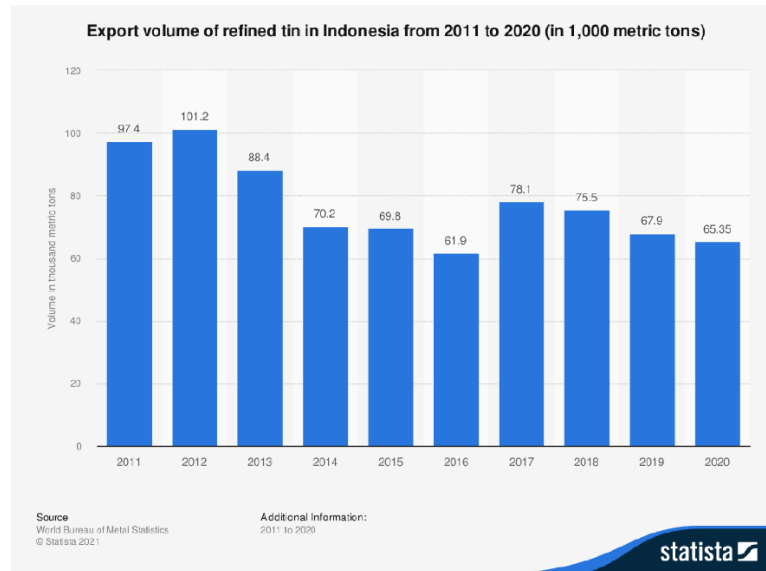


Figure 2. Indonesia's refined tin export 2011-2020

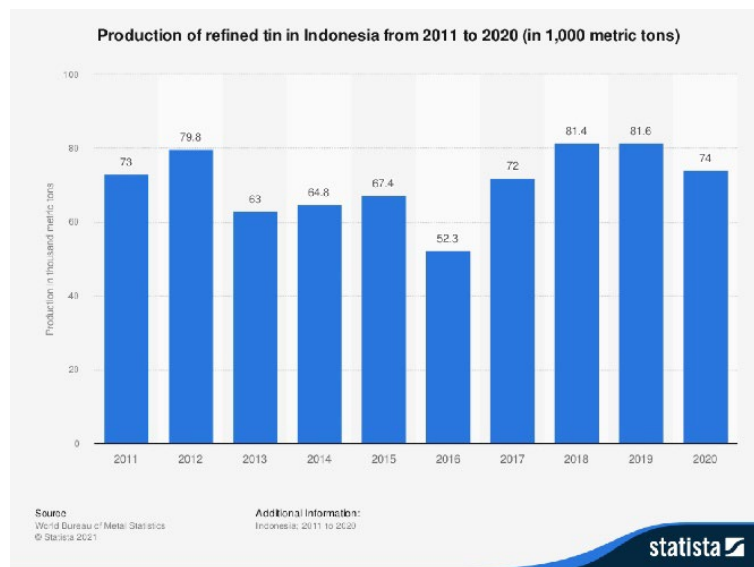


Figure 3. Indonesia's refined tin production 2011-2020

Figure 3 shows the amount of refined tin production in Indonesia, and it can be seen from the graph that the amount of refined tin production fluctuates. Then the number of refined tin exports shown in figure 2 is the total production from PT TIMAH Tbk. as a state-owned company and other companies that also produce refined tin, both of them contribute to the tin supply chain distributed globally (Nugroho 2020). As is known, tin is one of the primary commodities exported abroad (Suryono 2019). Some individuals exploit the high levels of production and exports to gain profits in illegal ways and harm Indonesia. The government responded to this condition by issuing several policies to regulate provisions regarding tin exports until the issuance of various new policies according to developments (Contesa et al. 2018). One of the policies that we can highlight is the Regulation of the Minister of Trade of the Republic of Indonesia Number 78/M-DAG/PER/2012, which regulates the tin content of Sn 99.9% as an export requirement. Some of regulations are revised and changes is government steps to increase the profits from the tin industry and reduce losses that have been exploited by several individuals (Contesa et al. 2018). However, several policy changes set by the government certainly impact the tin industry, especially in Indonesia. As is known, Indonesia

has an essential role in the world tin market. Therefore, this research will analyze the impact of the Sn 99.9% content policy on tin export requirements in the global market.

1.1 Objectives

This research aims to see the impact of Indonesia's government tin policies on the global market. The theoretical contribution of this research can explain the relationship between the Indonesian government's policy in the tin industry to the global market. Practically, this research also contributes to complementing previous research. We hope that this research can be helpful as information for many parties and become a reference for further study.

2. Literature Review

We can see the relationship between state and non-state actors in the economic sector and global market. We use the Global Production Network (GPN) concept to discuss this case, which was initiated by Coe & Yeung (2015). GNP is a concept that exists to complement several concept, which were previously part of the sustainable production system (Coe and Yeung 2015). The concept of GPN focuses on the relationship between production systems and cross-border production networks. The concept of GPN has four elements, namely dynamics, strategies, value capture trajectories, and regional development. But in this research, we focus on dynamics and strategies. We can see the running dynamics and the actors who play a role in the system through these points. Currently, it can be said that exports of semi-finished goods have exceeded exports of finished goods; this condition shows a shift in production patterns (Coe and Yeung 2015). This also illustrates that the tin ore produced by several companies is exported and used as raw material to produce other goods.

Indonesia's position as one of the largest tin producers globally makes Indonesia have a high level of exports in the tin industry. However, this condition was exploited by some irresponsible persons and caused huge losses. Wijayanto (2017), in his previous research, analyzed phenomena related to illegal tin exports in Indonesia. From 2004 to 2013, ICW stated that Indonesia had suffered a loss of IDR 4.171 trillion from the difference in tin exported illegal (Wijayanto 2017). This phenomenon began with the outbreak of private miners and smelters and regulations centered on local governments. Tin exported illegally is usually managed by illegal tin collectors who get tin ore from several illegal miners (Wijayanto 2017). Most will conduct illegal mining in areas that do not have a mining permit (Wijayanto 2017). Another way they usually do is transfer the tin from their illegal mining to large ships in the middle of the sea, which they previously transported by small boats (Wijayanto 2017). To respond to this phenomenon, the government then issued the Minister of Trade Regulation Number 04/M-DAG/PER/1/2007, which regulates various tin export regulations, followed by several new policies that also regulate tin exports (Wijayanto 2017). The main factor driving this high level of illegal exports is the vast profits due to the high price of tin, especially since the 2000s (Wijayanto 2017). On the other hand, the laws against illegal export actors are still relatively weak.

In a previous research, Indra (2014) examined various Indonesian government policies toward the tin industry in a previous study. The high level of tin exports made the government pay close attention to this industry, according to Law Number (No). 11 of 1967, by only allowing certain parties to produce and export tin. However, this condition has changed since the Decree of the Minister of Industry and Trade Number 558/MPP/Kep/12/1998, which does not include tin as an item that is highly monitored in exports as before (Indra, 2014). This condition makes private miners and smelters grow and increases the number of illegal exports carried out by several individuals because there is no special supervision. To respond to this case, the government banned the export of tin sand on 2000 (Indra 2014). The issuance of these regulations did not reduce the phenomenon of tin smuggling until the central government issued Regulation of the Minister of Trade Number 04/M-DAG/PER/1/2007, which regulates various requirements for tin exports (Indra 2014). However, some people still take advantage of existing loopholes to export illegally. The government has re-released the Regulation of the Minister of Trade of the Republic of Indonesia Number 78/M-DAG/PER/2012, which explicitly regulates the tin standard that has a permit for export, namely tin containing Sn 99.9% (Indra 2014). The regulation was revised into the Minister of Trade Regulation Number 32/M-DAG/PER/6/2013 (Indra 2014). In addition to regulating the standards of tin content permitted to be exported, the government also requires trading tin through the stock exchange.

The two types of the literature disclosed by Wijayanto (2017) and Indra (2014) have discussed issues related to the Indonesian tin industry. Indra (2014), in his research, examines the dynamics of policies regarding tin exports in Indonesia. These policy changes continue to take place following changing conditions. Then Wijayanto (2017), in his research, also examines how the phenomenon of illegal exports in Indonesia is one of the reasons why Indonesia's tin

export policy has changed. Some irresponsible people take advantage of the situation to get the most significant advantage but harm Indonesia. We see a gap of knowledge regarding the discussion of the impact of the policy on limiting the content of processed tin that is suitable for export. Therefore, we discuss this topic with the concept shown in figure 4. The main topic of this research is the tin industry. Using the concept of GPN, this research will discuss how government policies affect the global tin market.

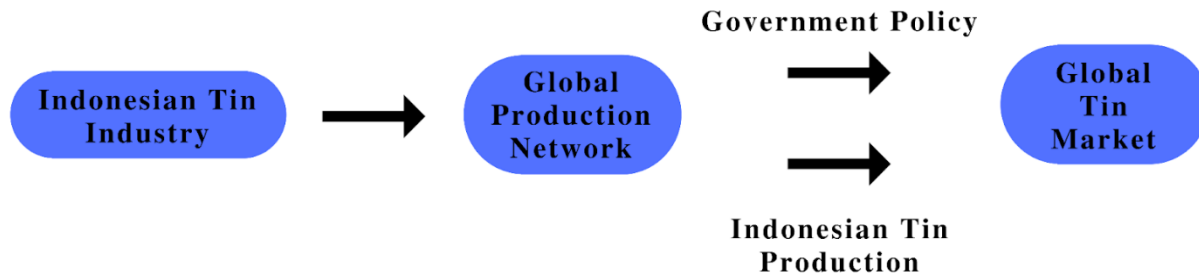


Figure 4. Conceptual framework

3. Methods

This research uses a qualitative method by conducting open observations. This study has two main variables, the Indonesian government's policy regarding standardization of tin content in the tin industry as an independent variable that affects the dependent variable, the world tin market. By using secondary data obtained from previous research and primary data obtained through interviews with related parties, the author uses the explanatory method to analyze the data received and explain the results of research on the relationship between Indonesian government policies in the tin industry and the global tin market.

4. Data Collection

This research uses secondary data obtained from previous research, which contains data on the amount of production and exports of Indonesian tin and policy developments in the Indonesian tin industry. In addition, this study also uses primary data obtained from interviews with Sucofindo, which is one of the surveyors. This research will further analyze how government policies regarding the standardization of tin content affect the condition of Indonesian tin and its impact on the global tin market in the discussion section.

5. Results and Discussion

Indonesia's position as the largest tin producer globally, it is explained that the Indonesian tin industry has an important role in the global tin supply chain. The Ministry of Trade of the Republic of Indonesia stated that in 2020, Indonesia would meet 40 percent of global tin needs. PT TIMAH Tbk. as the largest tin producer in Indonesia contributes 98 percent of Indonesia's total tin exports with the most significant supply 68 percent to the Asian continent, then 15 percent for the European continent, then 15 percent for the Americas and the rest is distributed for domestic demand (BAPPEBTI 2021). Until 2020, Singapore was the leading destination for Indonesia's tin exports, with around 18.99 percent of the total exports (BAPPEBTI 2021). In addition to Singapore, several countries such as Taiwan, India, the Netherlands, Japan, and many other countries are also destinations for Indonesia's tin exports. In this case, it can be said that Indonesia is the leading supplier of tin globally. This is because China, the largest tin producer globally, has a policy of using its tin production to produce other goods in the country. As the largest tin supplier globally, Indonesia has an important role. The main thing that deserves attention to meet the demand from various countries is the availability of chain that is ready for export. In some conditions, tin production in Indonesia has decreased. The two main factors that influence it are the availability of natural resources and the policies in effect at that time.

The policy regarding the standardization of tin content is one of the policies that affect the condition of the Indonesian tin industry. In 2012, the government set a policy through the Regulation of the Minister of Trade Number 78/M-DAG/PER/12/2012, which regulates the minimum limit of tin content with Sn 99.9% as an export requirement (Yulianti et al. 2020). All tin products whose content does not reach the standard limit cannot be exported abroad with this policy. According to a representative from Sucofindo, a surveyor in charge of verifying tin is suitable for export.

He said that the government set this policy to protect the natural resources and raw materials of tin. Before the government set a policy regarding the standard content of Sn 99.9% in a refined tin in 2012, Indonesia only exported tin without processing it to a certain level. The global market needs more processed tin or refined tin. The traded refined tins will later be reprocessed in a secondary process to become various products such as solder, armor coating, and tin coating for automotive components. The nature of tin is easy to form and can be an electrical conductor and has characteristics that are resistant to corrosion and do not have magnetic power, which is the reason for many products that use the tin as one of the raw materials. Then another reason for the government to set a policy of standardizing tin levels is that refined tin that has been processed to a grade of Sn 99.9% is considered more expensive than unprocessed tin ore.

Before the policy regarding the content of Sn 99.9% in tin was set by the government, tin ore traded by Indonesia would be purchased and processed by companies from other countries to become refined tins. With the standardization policy of Sn 99.9% content, Indonesia's profits will be higher because companies that need refined tin can buy directly from Indonesia. On the other hand, the entry of Indonesia as a party that participates in a trading tin with Sn 99.9% content also adds to the supply needed globally. Previously, refined tin traded on the global market was controlled by China. However, after Indonesia established a policy of standardizing tin content, the supply of refined tin in the global market increased. The increased supply of refined tin in the global market weakened the price of refined tin. This is under the market law regarding the amount of collection but not in harmony with the number of customers. In addition, the government also regulates tin trading only through the Indonesian Commodity and Derivatives Exchange. In the next year, there was a change in regulation through the Minister of Trade Regulation /M-DAG/PER/6/2013, which revised the percentage of impurity content (Yulianti et al. 2020). Based on the concept of GPN, this condition describes how the government regulates strategies with various considerations to get better results starting from securing the resources that are still available in Indonesia and trying to increase profits from selling refined tin in the global market. However, in terms of dynamics, global tin market conditions have decreased the price of refined tin since Indonesia only exports tin with a grade of Sn 99.9%. This is because the supply of refined tin has increased, but the number of customers has not increased in the global market.

Even though the government has set a standard policy of Sn 99.9% content in the tin that is suitable for export, there are still some irresponsible people by carrying out several illegal actions. To support the policy's success on the standard content of Sn 99.9% in tin, the government tightened the policy by presenting a Competent Person set in 2018. This Competent Person is responsible for reports on resource estimates, reserve estimates, and exploration results. In addition, the Competent Person is also responsible for reporting on the origin of tin which will then be verified by surveyors (Kumpanan 2019). The government set this policy to suppress illegal activities that take place in the tin industry. A Sucofindo representative stated that several irresponsible persons had been mining tin in areas not under the mining permit. Due to high global demand, the excellent tin price is the problem these irresponsible people carry out illegal mining activities. The existence of a Competent Person who verifies tin from its origin to its production process is one of the supporters of the previous policy, the standardization of Sn 99.9% content in the tin as an export requirement.

Returning to the stipulation of the policy regarding the standard content of the Sn 99.9% for the tin to be exported, we can see that the government's goal in maintaining the availability of resources is related to supply chain sustainability in the global tin market. As is known, the amount of tin that comes from natural resources will decrease one day. The activities of some irresponsible people will further reduce the number of available tin resources that can be processed later. If the government does not take serious steps to stop this illegal activity, the future availability of tin resources will decrease. We can see how tin has become an indispensable item to become one of the components of various products. The reduced availability of tin resources will undoubtedly impact the amount of tin production. As one of the largest tin producers and suppliers globally, Indonesia has an essential role in the global tin supply chain. To maintain the condition of the global tin supply chain, the government's steps in setting a policy regarding standardization of the Sn 99.9% content in the tin are pretty good and contribute to the global supply chain sustainability of tin.

One illustration of the impact of the policy on the standard Sn 99.9% content as an export requirement is the amount of PT TIMAH Tbk's tin exports which reached 98 percent in 2020. In that year, PT TIMAH Tbk. controlled tin exports from Indonesia. The government's decision issued in 2018 made tin verification to be exported even more stringent. As a result, only PT TIMAH Tbk. was the only company that passed the survey agency verification and obtained a tin export permit (Kumpanan 2019). This condition is undoubtedly a problem for the domestic and global tin industry.

This is because other private companies that produce tin in Indonesia also play a role in the global tin supply chain. In 2019, the global market experienced a supply shortage. Apart from the standard Sn 99.9% content policy, the availability of natural resources or tin ore produced is limited. As one of the largest tin suppliers globally, Indonesia delayed the tin export process, which disrupted the global tin supply chain (Ulfah 2019). Besides Indonesia, one of the mines in China, which is the largest tin producer, also temporarily closed its production due to a work accident (Ulfah 2019). The reduced supply from the two largest producers, especially Indonesia, which supplies tin to various countries, has made the conditions quite bearable. This is also supported by the increasing demand coming from Europe (Ulfah 2019). The result has depressed the global tin market. This is because the supply coming from Indonesia is decrease, while the demand coming from the market is significant. Based on the concept of GPN, we can see how the dynamics of the tin industry both in Indonesia and globally. The condition that becomes the main concern here is the reduced supply of tin globally. Indonesia, which experienced a shortage of resources to be processed, reduced the global supply of tin. Moreover, after the tin is produced, it still must be verified whether the standard is under the government's policy regarding the Sn 99.9% content.

Different conditions were shown in 2020, even though government policies have made several private companies stop their production, several private companies are collaborating with PT TIMAH Tbk. it make their products can still pass verification for export. Several private companies that collaborate with PT TIMAH Tbk. are PT Refined Bangka Tin, PT Tinindo Inter Nusa, CV Venus Inti Perkasa, PT Sariwiguna and CV DS Jaya Abadi (Ariefana 2020). On the other hand, the government also urges PT TIMAH Tbk. to increase cooperation with other companies to restore economic conditions that had declined due to the number of companies that stopped operating (Ariefana 2020). This government appeal will have a positive impact on the global market. The more companies that produce tin, the greater the number of products made. The collaboration between PT TIMAH Tbk. and several other companies aims to ensure that the tin they produce has met the standard Sn 99.9% content and has been verified so that it is suitable for export. Based on the concept of GPN, in this case, we see how the strategy used by one of the actors, which is quite strong, PT TIMAH Tbk. to invite several private companies to continue exporting tin. This strategy can also maintain the tin supply chain from Indonesia. Although this policy has had a significant impact on the Indonesian tin industry, especially private companies, the global tin supply chain is still ongoing due to the continuing cooperation between PT TIMAH Tbk. and several of these private companies. As a cooperating party, PT TIMAH Tbk. must have taken this strategy into account with various considerations.

Based on the concept of GPN, we can see the dynamics of the Indonesian and global tin industry as well as the strategies adopted to get the best results. We can see how the standard policy of Sn 99.9% content on tin export requirements affects global market conditions in terms of dynamics. In the early days of the policy, the Indonesian government set the standard content of Sn 99.9%, the global market tended to need more tin that had been processed to reach Sn 99.9% content. The reason is that they will use the refined tin to produce other goods. China's position as a refined tin producer had to go hand in hand with Indonesia, who making refined tin. As a result, the supply of refined tin increased in the global market, but the increase in supply was not accompanied by an increase in the number of customers. As a result, we can see from the figure 5 the price of refined tin globally fell. In April 2013, the price was 21,000 USD/Ton, which previously was 22,000 USD/Ton in December 2012 (Indexmundi 2022). The price of refined tin globally in April 2013 tended to be cheaper due to the policy regarding the authoritative content of Sn 99.9% of the Indonesian government came into effect in early 2013. Different conditions can be seen in 2019. In that year, Indonesia as one of the global tin suppliers, had to reduce the amount of its supply. The reduced amount of tin ore that can be produced has made Indonesia's production decline. The policy regarding the standard Sn 99.9% content has further tightened the amount of production and exports from Indonesia. The reduced amount of supply made the price of refined tin tend to be 21,260 USD/Ton (Indexmundi 2022). This number tends to be higher when compared to the 2013-2019 range.

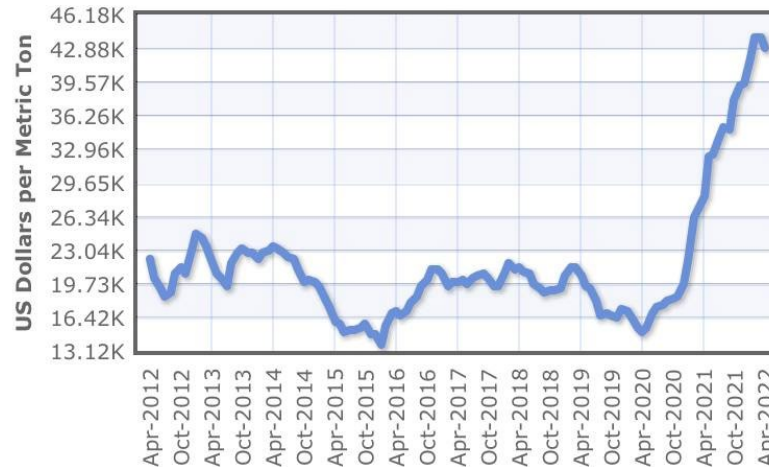


Figure 5. Tin price April 2012 to April 2022

From a strategic perspective, we can see that the government's primary objective in setting a standard policy of Sn 99.9% content in tin exports is to protect the natural resources still available in Indonesia. This strategy certainly contributes to the sustainability of the tin supply chain in the global market. The government's strategy to protect the availability of tin resources is the best step to reduce illegal activities, which further reduce the number of available tin resources that will later be produced. Indonesia's position as one of the global tin producers and suppliers has an essential role in the global tin supply chain. To maintain the condition of the supply chain sustainability of tin in the global market, of course, the government must continue to strive to protect the availability of tin resources that can be produced later. However, another thing that is also why the government set this policy is to get a more significant profit. Previously, Indonesia only exported tin ore produced by other parties to become refined tin with an Sn content of 99.9%. The government assesses that producing tin up to Sn 99.9% will increase Indonesia's profits. This is because the selling price of refined tin tends to be more expensive than tin ore. The strategy regarding the standard policy of Sn 99.9% content in tin implemented by the government also has a considerable impact on customers in the global market. They can directly buy refined tin from Indonesia to be directly used as a component of the production of other goods. As previously known, China is the primary producer of refined tin in the global market.

In the future, Indonesia and China are still being important actors in the supply chain sustainability of tin in the global market. This relates to the Competent Person tasked with investigating and reporting on the origin of tin, resource estimation, reserve estimation, and exploration results. Through this report, it can be seen how significant the estimated reserves of tin resources are. The report results explain that Indonesia will still be one of the actors who play an essential role in the global tin supply chain in the next few years, and China, which also fulfills domestic demand. It can be said that the Indonesian government's policy regarding the standard content of Sn 99.9% contained in tin has a significant impact on the global market, especially on the supply chain sustainability of tin in the global market. Through this policy, the government can secure the availability of tin resources that can be processed for the future. Moreover, as previously mentioned, Indonesia has an essential role in the global tin supply chain. If the government does not take firm action against these illegal activities, it will further deplete the availability of tin resources, and perhaps the amount will run out faster.

6. Conclusion

Indonesia's position as one of the largest tin-producing countries globally certainly has an essential role in the world's tin supply chain. This is illustrated by the government's attention to the tin industry since 1967. To protect the availability of tin resources in Indonesia, the government has set a policy to standardize the Sn 99.9% content in the tin as an export requirement. This policy can be said to be the central policy on tin export permits and affects the condition of the Indonesian tin industry. As one of the largest producers and significant suppliers of tin globally, this condition then affects the global tin market. This can be seen from the decline in the price of refined tin after Indonesia officially implemented a standard policy of Sn 99.9% content. The increased supply of refined tin due to supply from Indonesia makes prices tend to fall because the number of customers also does not increase. However, from the

perspective of customers in the global market, this policy is favorable because they can directly buy refined tin from Indonesia to use as a component in producing other goods. Other conditions were also seen in 2019. The reduced supply of refined tin from Indonesia made the price of refined tin tend to increase from the previous few years.

In terms of the main reason for establishing a standard policy of Sn 99.9% content in tin, we can also see that the supply chain sustainability of tin must be considered. The number of products that require tin as one of their components proves that tin is a commodity that is quite important in various industries. The illegal activities that previously took place were very detrimental because they further reduced the availability of tin resources that could be produced. Through this policy, the government can monitor and maintain the availability of tin resources for the supply chain sustainability of tin in the global market. Based on the concept of GPN, we can see that the government's policy regarding the content of Sn 99.9% in tin has quite affected the dynamics of the global tin market. On the other hand, the government's strategy to adopt this policy impacts global tin market conditions. The dynamics of the tin industry policy in Indonesia will continue, and the government will, of course, continue to adjust the policy to current conditions. The challenge is how Indonesia's strategy, especially tin producing companies, is to continue to produce and meet global tin demand.

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Biography

Adinda Dewi Saputri Inten Nuryati joined Bina Nusantara University in September 2018 as an international relations student. While studying international relations, Adinda chose to concentrate on international political economy. Apart from focusing on my studies, Adinda also participates in several activities that support her learning, such as student organizations. Adinda joined as a member of the international relations student organization of the business funds division in 2019 and has been a member of the human resources division since 2020.

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