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Indonesia's Mining Products Trade Policy, Downstreaming and Controversial International Trade

Syahrudi[1], Abdul Azim Wahbi[2]
[1,2]Indraprasta PGRI University, Indonesia

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ABSTRACT

Objective: *This study investigates the impact of Indonesia's trade policy on mining products, emphasizing the downstream processing strategy and its implications within international trade dynamics.* ***Method:*** *Using a qualitative approach combining policy analysis, literature review, and expert interviews, the research examines how Indonesia's efforts to promote value addition through downstream processing have influenced trade relations and compliance with global trade norms.* ***Results:*** *The findings reveal that while the policy enhances domestic economic benefits and industrial competitiveness, it also generates tensions with several trading partners, sparking debates on trade fairness, market access, and the sovereignty of natural resource utilization. These controversies highlight the complex interplay between national economic interests and international trade obligations.* ***Novelty:*** *This study provides a comprehensive perspective on Indonesia's downstream policy as a case of resource-based industrialization in a globalized economy, offering new insights into balancing national development goals with international trade commitments through cooperative and sustainable policy frameworks.*

INTRODUCTION

Indonesia, with its rich natural resources, possesses key advantages beyond its vast agricultural potential. National development relies on these potentials as a primary foundation [1]. The mining sector has historically been more attractive for development due to its strong link to economic growth. Indonesia's economic development has focused on industrialization rather than agriculture [2]. Over the past few years, the management of the mining sector in Indonesia has successfully contributed significantly to the Gross Regional Domestic Product (GRDP), including non-oil and gas mining. However, it is important to emphasize not only the extent to which the mining sector supports Indonesia's economic growth, but also how mining can be properly managed to provide optimal benefits for improving public welfare, in line with Indonesia's ambitious aspirations [3].

International trade is one of the oldest and most complex forms of international transactions. Trade, which transcends geographical boundaries, has the potential to accelerate economic development, but has also become a controversial concept [4]. Controversies over international trade typically arise from countries' desire to profit from trade while limiting the political and economic consequences that are detrimental to their communities. Ideally, international trade should be conducted by each country to rapidly increase the accumulation of national income [5]. After World War II, when the world

was hit by a global economic crisis due to the war, capitalism dominated the international economy. Each country attempted to rebuild itself through various means, including mercantilist practices such as restricting imports, increasing exports through subsidies, and raising import tariffs, which proved highly detrimental to international trade and even led to a global depression [6].

The function of the state must continue to be directed towards preventing market failure. The choice of a state role model is based on whether the state wants to adopt a strong role (etatism) by implementing economic regulations in the form of command socialism, or choose to provide individual freedom through a democratic system and a market economy that follows the principles of classical liberalism [7]. The state's role can even take a moderate form, falling somewhere between etatism and liberalism. The organic statistic model is a moderate example of the state's role in managing its economy. This organic model has variations that can lean toward etatism or liberalism. These choices move dynamically, like the swing of a pendulum, according to the political and economic system implemented by a country [8].

In 2021, Indonesia was accused of violating international trade regulations related to nickel ore. This violation arose when the Indonesian government extended the ban on exports of raw nickel ore for two years, which violates international trade agreements regulated by the World Trade Organization (WTO). The ban on raw nickel exports is also regulated in Ministerial Regulation (Permen) ESDM Number 11 of 2019, which is the second amendment to Ministerial Regulation (Permen ESDM Number 25 of 2018 concerning Mineral and Coal Mining Business [9], [10]. The European Union expressed dissatisfaction with the nickel ore export ban policy. This policy of restricting imports of raw nickel ore is considered unfair and has a negative impact on the European steel industry sector because it results in limited access to nickel ore and other mineral ores, such as iron ore and chromium. The European Union believes that Indonesia has violated the WTO member obligation to provide the greatest possible access for international trade, including raw nickel products, which is a clear violation of Article XI:1 of GATT 1994. The impact of this violation has led several WTO member countries, such as Norway, Canada, and the European Union, to file complaints with the WTO. If found guilty, Indonesia risks sanctions and being forced to reopen its raw nickel ore export market [11].

The Indonesian President announced his plans to implement an initiative supporting the ban policy, namely the Nickel Ore Downstreaming Program. This measure is considered an effective strategy for increasing domestic added value by encouraging the production and export of further processed nickel products, rather than relying solely on raw ore sales. This measure is expected to positively contribute to increasing foreign exchange earnings, creating jobs, and strengthening the domestic industrial sector. A study conducted by Ario showed that restrictions on raw material export tax simulations have proven effective in reducing nickel ore export volumes [12]. According to research by I Kadek, an analysis of export competitiveness with other countries indicates that weaknesses remain. Furthermore, production factors also have

the potential to significantly impact the transformation of nickel ore into semi-finished materials and finished products [13].

It is important to design a conceptual framework that demonstrates the overall logical flow of the research process. This series aims to address the main research questions, which involve Indonesia's Mining Product Trade Policy, the Downstreaming process, and emerging controversies within the context of International Trade. To facilitate the description of the conceptual framework, the following diagram is presented:

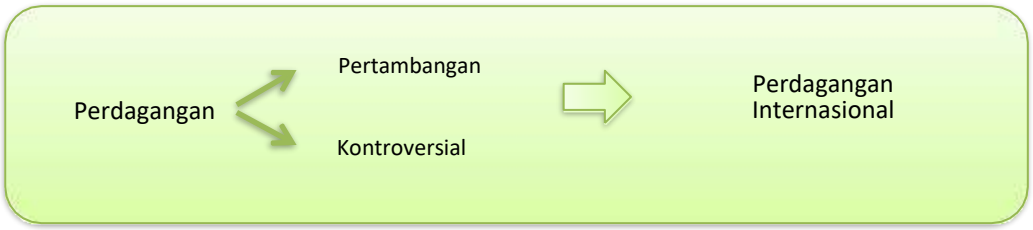

Figure 1. Conceptual Framework.

In general, international trade is a business activity involving investment, export, import, and other activities that occur between countries worldwide. International trade has the benefit of meeting unmet needs in a country and can improve the welfare of its population. Foreign exchange reserves are a financial instrument commonly used as a means of payment in international trade transactions. Foreign exchange reserves serve as a benchmark for the global community, as the total amount of currency held by a country plays a role in carrying out economic transactions that have a significant impact on international finance, thereby increasing the value of that country's currency [14].

RESEARCH METHOD

The research involves five main aspects, including the approach and method, data types and sources, data collection methods, data analysis methods, and the time and location of the research. This research uses a qualitative approach by applying descriptive-analytical methods, as explained by Darmalaksana. The data used in this study are qualitative and not in the form of statistical figures [15]. The primary sources in this study include digital platforms on social media such as YouTube, Instagram, Facebook, Twitter, and also literature related to international trade, media space, and trade polarization. Supporting sources in this study include references related to the topic, obtained from articles, books, and other research documents. The data in this study were obtained through social media studies and literature reviews. The data analysis process involves the steps of inventory, classification, and data analysis, as explained by Darmalaksana [16], [17], [18]. This research is not limited to time and location aspects, as it is not an experimental study. Rather, it is a research of thought, although the data used is sourced from empirical facts found in social media.

RESULTS AND DISCUSSION

1. Indonesian Mining Product Trade Policy

Article 33 of the 1945 Constitution states that the state has control over the land, water, and natural resources contained therein and must utilize them to the maximum extent possible to improve the welfare of the people [19]. This direction of the 1945 Constitution serves as the basis for the development of the mining and energy sector, with the aim of efficiently utilizing the potential wealth of mineral and energy natural resources to support sustainable national development [20], [21]. Mining, mineral, and coal resources within Indonesia's mining jurisdiction are considered non-renewable natural resources, gifts from God Almighty that play a vital role in meeting the needs of many people. Therefore, the state must manage them to provide real added value to the national economy and contribute to the equitable achievement of prosperity and public welfare.

Mining refers to the process of extracting valuable and economically valuable mineral deposits from the earth's layers, either through mechanical or manual methods, above or below the surface of the earth. In 1980, the Government of the Republic of Indonesia established a classification of three groups of minerals through Government Regulation No. 27, which regulates these activities [22], [23]:

1. Strategic minerals, also known as Class A minerals, consist of: petroleum, liquid bitumen, solid wax, natural gas, solid bitumen, asphalt, anthracite, lignite, uranium, radium, thorium, other radioactive minerals, nickel, cobalt, and tin.
2. Vital minerals, also known as Class B minerals, consist of iron, molybdenum, chromium, tungsten, vanidium, titanium, bauxite, copper, lead, zinc, gold, platinum, silver, mercury, arsenic, antimony, bismuth, yttrium, rhutenium, cerium, and other rare metals, beryllium, corundum, zircon, crystalline zirconia, cryolite, fluorspar, barite, iodine, bromine, chlorine, and sulfur.
3. Non-strategic and non-vital mining materials, also known as class C mining materials. These include: nitral, nitrite, phosphate, rock salt (halite), asbestos, talc, mica, graphite, magnesite, jarosite, leucite, alum (alum), ochre, gemstones, semi-gemstones, quartz sand, kaolin, feldspar, gypsum, bentonite, diatomaceous earth, fuller's earth, pumice, trass, obsidian, marble, slate, limestone, dolomite, calcite, granite, andesite, basalt, trachyte, clay, or sand, as long as they do not contain class A or class B mineral elements on a scale that is significant from a mining economic perspective.

This classification of mining materials is legally based on the 1967 Basic Mining Law, which stipulates that the classification of mining materials is based on their different roles in the interests of the nation and state. Minerals in Group A are considered vital to the national economy because they contribute significantly to foreign exchange earnings. Group B includes minerals related to the general needs of the community, while Group C includes minerals needed for industrial or construction purposes [24], [25].

Currently, the most commonly known mining activity is the mining of metallic minerals such as gold, copper, nickel, bauxite, and coal. In addition to primary minerals

and coal, rocks also play a crucial role in providing materials for infrastructure development, such as roads, housing, and office buildings. The term for Class C minerals, previously regulated by Law No. 11 of 1967, has been changed with Law No. 4 of 2009, to "rocks." Therefore, the use of the term Class C minerals is no longer appropriate and has been replaced by the term "rocks." The economic activities of mineral and coal mining, which are included in the mining sector alongside geothermal, oil, natural gas, and groundwater, play a significant role in making a tangible contribution to national economic growth and sustainable regional development [26], [27].

2. Downstreaming

Patunru states that downstreaming, also often referred to as downstreaming or increasing added value, refers to efforts to reduce the export of raw materials and instead encourage domestic industries to use these materials with the aim of increasing domestic added value and simultaneously creating jobs. If exports are still necessary, the exported goods should be finished products resulting from the processing of these raw materials. Export lipstick or chemical compounds, not palm oil. Export aluminum products, not bauxite. According to Patunru, caution is needed when approaching the concept of downstreaming [28]. He refers to the early views of Albert Hirschman's downstreaming theory, who proposed a downstreaming policy in the context of import substitution [29]. Hirschman argued that in the context of increasingly integrated regional and global production networks, downstreaming is considered regressive because this policy forces the relocation of resources that are not in line with the comparative advantages of the countries involved [30], [31]. It is true that the added value of metals is higher than that of iron ore. However, the increased added value at the processing stage must come from other sources. Therefore, other sectors, such as clothing or footwear, may have to be sacrificed as workers and capital are diverted to processing iron ore into metal (or bauxite into alumina, which is then converted into aluminum). The mineral refining process requires significant capital investment, which remains a significant burden for some countries.

Patunru illustrates the situation by referring to research conducted by Hausmann on conditions in Finland, a country renowned for its green landscapes and abundance of trees [32], [33]. Finland's success stemmed not from exporting furniture (processed wood products), but rather from exporting raw (unprocessed) wood. This marked the beginning of Finland's global expansion. To increase its success in wood exports, the Finns learned how to cut trees more efficiently, developing a tree-cutting machine. After successfully inventing a wood-cutting machine, Finnish entrepreneurs went on to create cutting machines for other materials, such as metal, and eventually developed automated cutting techniques. By mastering automation technology, they were able to enter more complex industries, resulting in the birth of the Nokia Bagan C-3. Today, Finland is successful in exporting machinery and electronic devices, not just wood or wood-cutting machines. Finland remains green, with the largest forest cover in Europe. This reflects Finland's efforts to maintain the sustainability of natural resources, particularly forests.

Finland's downstreaming approach can serve as a model for Indonesia in its efforts to process minerals without damaging or depleting resources and reserves. Indonesia's nickel reserves can be preserved by converting nickel into ferronickel, which can then be used as a raw material for the stainless steel industry [15]. Several developed countries, such as those in Europe, Japan, South Korea, and China, import nickel from Indonesia and then process it into ferronickel and stainless steel. These materials can then be used by manufacturing industries, such as the machinery, pharmaceutical, automotive, electronics, food, and household industries, to produce high-value-added products. A positive contribution to the national economy can be achieved by reducing dependence on imported stainless steel industrial products. Furthermore, from a mineral resource conservation perspective, this step will also optimize the use of mineral reserves in the long term.

3. International Trade Controversy

In the context of international trade, there is a general agreement that a liberal international trading system is desirable. However, within this liberal structure, there are concerns that countries, nations, and economic actors with mercantilist policies may behave independently and be vulnerable to exploitation by other countries. While support from national leaders and an international political economy perspective may support this possibility, ideally, a global free trade system should include protections for domestic trade and workers who receive high wages. This system should also ensure the sustainability of the environment surrounding production facilities without causing damage. Therefore, it is not surprising that international trade policies are controversial [20].

There is a number of controversies surrounding the comparative advantage model and its application in international business, particularly as a guide to the success of countries or companies in the global market. The view that the comparative advantage model is less relevant has prompted international business experts to develop new frameworks to analyze the potential success of companies or countries in the international market. One such framework is known as "competitive advantage." Compared to domestic trade, international trade is considered complex and intricate. This complexity can be influenced by political and national boundaries, such as duties, tariffs, or import quotas. Furthermore, other challenges arise from differences in culture, language, currency, estimation and measurement, and differences in trade laws [22].

There are several benefits arising from international trade activities, including: first, obtaining goods that cannot be produced domestically. Various factors, such as geographical conditions, climate, level of technological mastery, and other factors, influence the varying production output in each country. Through international trade, each country can meet needs that cannot be produced independently. Second, gaining advantages through specialization. The primary goal of foreign trade is to gain profits through specialization. Even though a country is capable of producing similar goods to other countries, it is sometimes more profitable for that country to import those goods from abroad. Third, expanding markets and increasing profits. Some entrepreneurs may

not optimize their production machines for fear of overproduction, which could lead to lower product prices. Through international trade, entrepreneurs can operate their production machines optimally and sell excess production abroad. Fourth, the transfer of modern technology. Foreign trade allows a country to acquire knowledge of more efficient production techniques and more modern management practices [21].

In the early 20th century, a theory of international trade known as factor proportions emerged, proposed by two Swedish economists, Eli Heckscgher and Bertil Ohlin. This theory is also known as the Heckscgher-Ohlin theory. The main focus of this theory is that countries should produce and export goods that require locally abundant resources and import goods that require resources available in limited quantities. Unlike the theories of comparative advantage and absolute advantage, the Heckscgher-Ohlin theory emphasizes the productivity of the production process for a particular type of good. Countries adopting this theory are expected to specialize in production and exports using the most abundant factors of production, thus achieving the most economic results. This contrasts with previous approaches that emphasized the production of goods with the highest efficiency (Samuelson, Opcit).

CONCLUSION

Fundamental Finding : The study concludes that Indonesia's mining trade policy, particularly its downstream processing initiative, represents a strategic effort to enhance national value creation but simultaneously poses multidimensional challenges involving environmental sustainability, social welfare, and international trade compliance. **Implication :** These findings imply that achieving sustainable and equitable development in the mining sector requires the integration of economic, environmental, and social governance principles, supported by transparent regulations and constructive engagement with global trade partners. **Limitation :** However, this research is limited by its qualitative scope and reliance on secondary data and expert opinions, which may not fully capture the dynamic policy outcomes across different mining subsectors. **Future Research :** Therefore, future studies should employ a mixed-method approach combining econometric analysis and policy evaluation to quantitatively assess the long-term impacts of Indonesia's downstream policy on trade performance, environmental resilience, and community welfare within the broader context of global sustainable trade frameworks.

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***Rangga Ramadhani (Corresponding Author)**
Indraprasta PGRI University, Indonesia
email: syahrudisaja@gmail.com

Rizky Eka Febriansah
Indraprasta PGRI University, Indonesia
Email: abdul.azimwahbi@gmail.com