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Defense Economic Strategy in Creating the Independence of the Indonesian Defense Industry (Case Study of the Independence of the Chinese Defense Industry)

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Abstract
Efforts to build an independent defense industry is a strategic goal in strengthening national identity. The aim of this research is to find out the Defense Economic Strategy in Realizing the Independence of the Indonesian Defense Industry. The results of the study show that one indicator of the independence of the defense industry is to produce its own defense and security equipment without any intervention from other countries. The Indonesian government must be able to make the independence of China's defense industry a spirit model for the development and independence of the Indonesian defense industry by consolidating and strengthening capital for the domestic defense industry, increasing competitiveness in producing defense products in global trade competition, and conducting collaborative technology transfer cooperation. to increase the ability of the national defense industry to realize the independence of the defense industry.
Keywords: Defense Economics, Industrial Independence, Indonesian Defense, Chinese Defense

INTRODUCTION

The independence of the defense industry is a national goal that the Indonesian people want to achieve. The problem of the availability of defense equipment and the independence of the defense industry cannot be separated from the availability of the budget and budget posture (Setiadji, 2022). The allocation of the national development budget in Indonesia still places the interests of people's welfare above national defense. Indonesia's defense budget allocation ranks as the third largest for K/L each year, but more than 50% is used for personnel expenditure. The remaining 30% of the defense budget is for purchasing defense equipment, and the remaining 20% is for spending on goods and maintenance.

The defense industry is a national industry, both owned by the government and privately owned, whose products, either independently or in groups, can be used for the benefit of national defense. Obstacles to achieving defense independence prompted the government to seek new breakthroughs in building Indonesia's defense capabilities. The government has an important role in developing the defense industry, because the government acts as a decision maker (policy maker) as well as the sole buyer (monopsony) of domestically produced defense equipment. The government has the authority to regulate the budget and determine the amount of ownership, structure, process of entry and exit, efficiency and price, even to the setting of profits that can be received by the defense industry. Therefore, actually developing the defense industry is never apart from the government's desire to build defense forces. A strong defense industry will produce a strong and reliable defense posture.

President Joko Widodo at the launch of the Holding Defend ID, stressed that Indonesia must immediately build self-sufficiency while at the same time encouraging the domestic defense industry to be fully prepared to enter a new era of competition and be able to meet

basic defense needs to maintain the sovereignty of the Unitary State of the Republic of Indonesia. Efforts to build an independent defense industry is a strategic goal in strengthening national identity, supporting national strength and forming bargaining power. The need to maintain national and territorial sovereignty, projection of future threats, regional political-security dynamics and efforts to build national confidence are strategic reasons for reviewing and determining policy directions to achieve self-reliance. Padelford and Lincoln (1967) explain that "National power is the combination of power and capability of a state uses for fulfilling its national interests and goals", while Hartman (1980) views that "national power denotes the ability of a nation to fulfill national goals. It tells us as to how much powerful of weak a particular nation is in securing its national goals*".* Setiadji (2020) firmly explains that the elements of national strength do not only depend on the quality and quantity of a country's population, but also other elements, one of which is the defense industry, which is part of the defense force.

Indonesia should reflect on several countries that place aspects of the defense industry as part of their national priorities, such as the United States, Russia, China, South Korea and Turkey. The success of the defense industry can be used as a reference, although of course some adjustments are needed due to the uniqueness of Indonesia in related aspects and policies. In this paper, China is used as a reference in efforts to realize defense industry independence by looking at the miracles that China has done both from the economic, technological, industrial aspects, and most importantly its ability in military reliability. The United States Department of Defense (DoD) released its report that in 2000, China as a sizable military, but still far behind (ancient) and not in accordance with its long-term ambitions to become a strong, modern, united, and wealthy nation. The United States sees that China still does not have sufficient combat power, and its military organization is not yet good enough to deal with modern wars. However, two decades later, namely in 2020, the DoD report stated that China had increased its resource, technological and political capacity to strengthen and modernize its military in almost every way, even ahead of the United States in certain areas (Setiadji, 2020).

The progress of China's defense industry is based on the interests of self-reliance (Zili Gengsheng) which the government views very seriously as a major component of national security. China's policy is more towards the slogan of walking on two legs, which places great emphasis on the interests of independence, regardless of the aspect of efficiency and even the effectiveness of the production results it produces. China's defense industry has experienced massive and extraordinary progress since 1998, with four main factors determining the success of China's leadership policies in modernizing the defense industry, namely: 1) On a more focused budget for the acquisition of various weapons; 2) On the benefits of a commercial economy spin-on; 3) On the tight integration between aspects of research, development in the global production chain, access to foreign technology, new knowledge and foreign capital investment; 4) On fundamental reforms through mechanisms that include competency, evaluation, support, and supervision.

The four policy principles firmly direct coordinated development between the economic sector and the defense sector. The principle of the independence of China's defense industry is exactly the same as that aspired to by President Joko Widodo by quoting the statement of the Israeli Minister of Defense, Avigdoor Liberman during the debate on the defense budget at the Knesset in 2018, "Defence is not a cost, defense is an investment". Avigdoor Liberman stated that every penny spent on the ministry of defense is not a waste but an investment to earn foreign exchange, quality research and development, development of national industry, and creation of jobs as well as in the framework of maintaining national security, present & future.

For Indonesia, the development of the defense industry has the main goal of realizing defense independence, as support for national security in order to achieve targeted national interests. The defense industry is needed to support the interests of national defense while at the same time encouraging national economic growth. The defense industry was built to meet the needs for defense equipment, weapons and equipment for the TNI and Polri, and to encourage the development of other industries which as a whole will drive the national economy, through the production of goods and services, the use of manpower, increasing the country's foreign exchange through exports and increasing the Indonesia's competitiveness and bargaining position in the international arena.

Theory Review

Defense Economics

Defense economics focuses on understanding the dynamics of military spending, conflict, and related economic aspects of the defense sector. Understanding these dynamics will help improve the control of arms limitation and conflict volatility thereby contributing to the continued prosperity of human life and future extinction. According to Supandi (2018), the study of defense economics has a strategic role, as a field of economic study that examines the potential and management of national resources through technology as a defense resource developed for the benefit of national defense. If we talk about national security policy, military strategy, even operational tactics will definitely be influenced by economic factors.

Industry is one of the clusters of the economy, so the defense industry can also be said to be a family of the defense economy (Yusgiantoro, 2014). The defense industry is part of the national industry, but has special characteristics that distinguish other industries. This difference demands more attention from the government in order to remain able to stand and exist in supporting the strength and posture of national defense. The basic principles of microeconomics form the basis of economic theory in the Defense Industry where income is the main supply chain in supporting business activities. With regard to self-regulation, Law No. 16 of 2012 has become a strong legal basis until now. According to Hartley (2007) the defense industry has various characteristics that indicate identification in terms of the defense economy. The center of consideration that influences the defense industry is on financial and budgetary aspects. The cost of making a strategic defense equipment is very expensive and if it is forced to be procured in a certain amount and in a short time it will erode the state budget, especially for a country that is still focused on national development and people's welfare like Indonesia.

Conceptually, the defense budget is divided into two categories, namely Capital Expenditure and Revenue Expenditure. The term Capital Expenditure refers to the notion of spending on research, development, maintenance, storage of weapons, transportation and purchase, while Revenue Expenditure includes expenditure on soldier training, building restoration and costs of educational institutions. Widjajanto (2012) said that there is a need for a financing mechanism using the Burden Sharing model, where the defense industry does not always have to be borne by the Ministry of Defence. In the process of globalization that encourages the creation of today's market economy, private participation will increasingly develop and become an equal partner of SOEs. The market will be more open and become a competitive arena so that each company will try to make efficiency. Efficiency can be achieved in various ways, including by collaborating with foreign countries or by providing opportunities for industry players under Lead Integrators to become part of the Global Supply Chain.

Defense Independence

The defense industry is generally rigid. Rigid means that since the beginning the defense industry has used the budget allocation in order to realize the Defense Acquisition. According to Widjajanto (2012), there are two patterns of ownership and management of defense industry companies. The first pattern is a country with a privately owned defense industry, known as defense contractors. The second pattern is a country whose defense industry tends to be wholly owned and managed by the state. Conceptually, the sovereignty of a country is determined by its independent defense industry. Indonesia has so far been a country that uses the first pattern in its defense industry ownership pattern.

However, it can be said that Indonesia is still not able to be said to be independent in terms of the defense industry. Indonesia's current trend is to become an arms importing country. Even though the defense industry which is owned and managed by the state itself is seen as much better than buying it from abroad. The potential for embargoes and coalition statements with certain countries overshadows the concept of defense acquisitions through purchases. The obstacle for Indonesia's defense industry to be said to be independent lies in the classic problem, namely an inadequate budget. The Gun or Butter problem also follows the Indonesian government when a policy to increase the defense budget emerges. Furthermore, Widjajanto (2012) stated that related to the dynamics of weapons that are very fast at this time, many advances in weapons technology are produced by privately owned industries. Many governments have finally taken liberalization measures against the defense industry sector.

The independence of the Defense Industry is one thing that Indonesia must realize at this time in accordance with the mandate of Law Number 16 of 2012 concerning the Defense Industry. One indicator of the independence of the defense industry is producing its own defense and security without any intervention from other countries (Kurniasari et al., 2020). Kurniasari further continued that Indonesia's current condition is still in its early phase by only being an end-product assembler, which means that Indonesia is actually capable of producing complex and sophisticated resources but is limited in development and research. As a developing country that is often struggling with issues regarding education, health, poverty, and meeting the basic daily needs of its citizens, the development of the defense industry has received little encouragement from the government. Even though the defense industry can also take a role in national development and global economic regulation (Tuwanto, 2015).

With the competition in the global arms industry accelerating, realizing a defense industry that is nationally based and fully managed by the state is starting to be considered obsolete and is no longer considered appropriate to achieve defense industry independence. The independence of the defense industry will have strategic significance in reducing dependence on Indonesia's supply of defense equipment to foreign countries which often interferes with Indonesia's independence in addressing domestic and foreign political issues.

RESULTS AND DISCUSSION

Capital Consolidation and Strengthening

The end of the cold war in the 1990s was marked by fundamental changes in the global industrial structure. The loss of the threat of large-scale traditional armed confrontation has resulted in a reduction in the defense equipment procurement budget. The amount of the budget allocated to the defense sector such as research and development, purchase of defense equipment, maintenance of weapons systems, and military personnel decreased by a third between 1989 and 1996. Based on data from the International Institute for Strategic Studies

(IISS), the allocation of the defense budget decreased dramatically from 1,300 billion USD in '"1989 to 800 billion USD in 1996 after reaching the highest value of military spending in 1987.

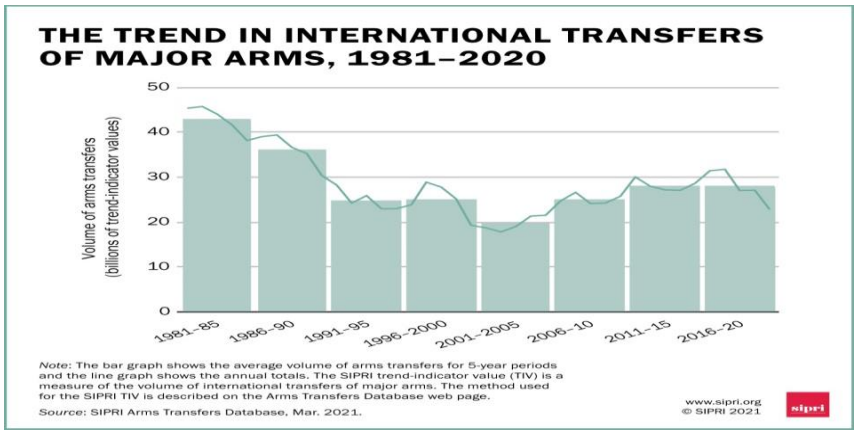

Figure 1. World Defense Budget 1981-2020
Source: International Institute for Strategic Studies (IISS), 2020

The reduction in the amount of the defense budget in figure 1 had a major impact on the defense industry during the cold war, which was very dependent on the purchase of defense equipment. This is based on the development of military power which is still done traditionally. According to Prince Waterhouse Cooper (PWC) in his article "Defence Industry in the 21st Century", between 1990 and 1998, there were at least 24 companies from the 100 largest defense industry companies in the world, which left their core business related to the provision of military needs. on the other hand, a number of companies actually grew bigger through a series of consolidations, as a form of adaptation to changes in the strategic environment.

China is one of the countries that has formed a defense industry consolidation in building the independence of its defense industry. The consolidation of China's defense industry was marked by the establishment of the Ministry of Industry and Information Technology (MIIT). MIIT is part of a wider consolidation by taking over several functions from several government departments, such as; The National Development and Reform Commission (NDRC), created the State Administration of Science Technology and National Defense (SASTIND), which replaced the Commission Of Science, Technology and Industry for National Defense (COSTIND), abolished the Ministry of Information Industry and also abolished the Council Information Office. State (the State Council Information Office). The formation of MIIT aims to reduce bureaucratic complications, strengthen aspects of supervision, and improve the quality of China's defense industry.

In Indonesia, the defense industry policy consolidation was also proposed by Vice Admiral TNI (Purn) Dr. Agus Setiadji in his book "Defense Independence Direction" to form the Defense Acquisition Agency (BAP), which is a merger of the Defense Facilities Agency and the Development Research Agency. Through the new systems and procedures, the TNI's involvement in the acquisition process is at the stage of proposing the needs of each spell through each force chief of staff. Furthermore, the Minister of Defence, the Commander of the Indonesian Armed Forces, and the Chief of Staff of the Force evaluate and decide on the need for defense equipment in accordance with the defense strategic plan. The procurement process is then carried out by BAP through a purchasing and R&D program. The purchasing program is carried out based on domestic and import industries with a technology transfer scheme.

The R&D program was carried out by BAP to produce prototypes according to the acquisition plan. Mass production can be carried out by industries involved in R&D programs or through open tenders. Furthermore, the defense material that has passed the BAP's test and evaluation will be handed over to the TNI unit that proposed it. This proposal aims to simplify the bureaucracy which has so far seemed to complicate aspects of coordination between the Ministry of Defense and defense equipment users, in this case the TNI Headquarters.

Another aspect related to strengthening the defense industry is the field of capital. The movement of capital in improving the quality of the defense industry can be seen in China's efforts to open up opportunities to strengthen its strategic industry by absorbing investment from the capital market. This policy began in 2013, when the State Administration of Science Technology and National Defense (SASTIND) issued permits to release shares related to military projects in a number of state-owned companies. The first company to release its shares was China Shipbuilding Industry Corporation (CSIC) which in September 2013 managed to attract investment from the capital market of 940 million USD. This number continues to grow and until January 2015 it was reported that the amount of investment obtained from the capital market for the two Chinese shipping industries, namely CSIC and China State Shipbuilding Corporation (CSSC) reached USD 22.26 billion.

This amount is estimated to be 20 percent higher than the investment value accumulated from the stock market by the three largest defense companies in the United States; Huntington Ingals, General Dynamics and Lockheed Martin in the same period. The aerospace company Aviation Industries Corporation of China (AVIC) in the last three years has become one of the strategic industrial companies that is very active in the capital market. Overall, it is estimated that around 30 percent to 40 percent of assets from China's defense industry have circulated in the capital market. Access to funding from the capital market enables the defense industry to finance programs related to the development of China's defense industry capabilities.

In the future, the defense industry is expected to be more open in implementing commercial enterprise practices in order to strengthen itself, particularly in the context of facing intense trade competition in the arms sector at the global level. Pragmatism as an entity that prioritizes profit in general will shift the perception of the defense industry, as a national strategic asset that must be managed by prioritizing confidentiality. In this regard, the Indonesian government should consider the Indonesian defense industry SOEs to list their shares on the capital market with a certain percentage limit on ownership so that priority shares remain owned by the government. The determination of defense industry SOEs in the capital market must involve the Ministry of Defense as the user and builder of defense forces. Some of the aspects that are being considered by defense industry SOEs that are allowed to enter the capital market are aspects of dual-use technology such as PT LEN, PT PAL, PT Dok Kodja Bahari, and PT Pindad.

Global Arms Trade Competition

The consolidation phase of the defense industry was followed by an increasing push for arms exports in the defense industry companies of developed countries. The reduced potential to generate profits from national military procurement is pushing the defense industry to start tapping into the potential of increasingly open markets in East Asia, Australia and the Middle East.

The trend of arms exports is increasing with the increasing number of countries supplying alternative weapons. If previously global arms exports were dominated by the

United States and Western European countries, now a number of defense industrial powers are growing in various other regions, including Asia. Within two decades after the end of the cold war, there was a strengthening of the defense industry in a number of countries such as China, South Korea, India and Turkey.

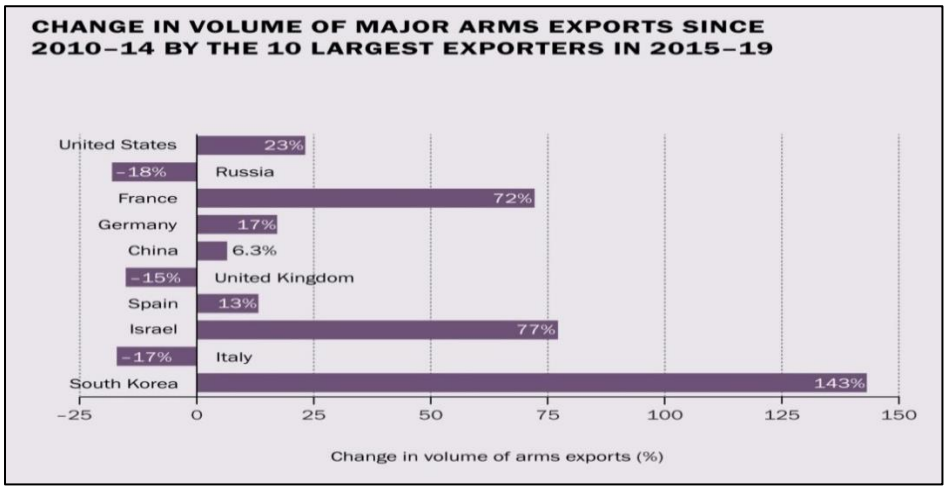

Figure 2. Volume of World Arms Expenditures in 2015-2019
Source: Sipri, 2020

The volume of world arms spending between 2015-2019 increased 5.5 percent higher than in 2010-2014, and 20 percent higher than in 2005-2009. In Figure 1.2, the five largest exporters in 2015-2019 are the United States, Russia, France, Germany and China. The five exporting countries accounted for 76 percent of all arms exports to various countries in the world. while the five largest importing countries are Saudi Arabia, India, Egypt, Australia, and also China. France has the highest increase in arms exports among the top 5 world arms exporters. Arms exports from the United States, Germany and China also increased, while Russian arms exports decreased. In addition, there are three countries outside Europe and North America as the top 10 arms exporters in the 2015-2019 period, namely China, Israel and South Korea.

China was the world's fifth largest arms exporter in 2015-2019 and accounted for 5.5 percent of total world arms exports. After increasing 133 percent between 2005-2009 and the 2010-2014 period, China's arms exports grew only 6.3 percent between 2010-2014 and 2015-2019. In the 2015-2019 period, Asia and Oceania accounted for 74 percent of weapons exports from China, Africa 16 percent, and the Middle East 6.7 percent. The number of countries to which China sends weapons has increased significantly from 40 countries in 2010-2014 to 53 countries in 2015-2019. Pakistan is the main beneficiary at 35 percent in the 2015-2019 period, as it has been since 1991.

Defense industry companies' efforts to maximize weapons sales are expected to increase in the future. A number of defense equipment procurement programs in large quantities will become an arena for intense competition in the field of defense equipment exports which is closely related to developments in military technology and the latest defense industry. The defense industry is currently facing a situation where developments in military technology encourage the possibility of switching generations of modern weapons systems. Meanwhile, on the other hand, the defense industry still has to maximize profits from the sale of defense equipment from the current generation before these types of defense equipment become irrelevant.

The Ministry of SOEs has set targets and initiatives for consolidation strategies for holding SOEs in the defense industry in 2024, including: 1) in the aspect of fulfilling the minimum basic needs (MEF) of 100%; 2) Technology Readiness Level (TRL)/Manufacture Readiness Level (MRL) 100% (average score 8/8), and 3) domestic contribution (local component)> 50%. The target to make one or more of Indonesia's defense industry SOEs into the top 50 world defense industry group is a reasonable and rational expectation, but a variety of more structured strategic steps are needed, involving deliberate and fully oriented strategic changes to one aim.

Strategic Defense Defense System Development Cooperation

The development of military technology on the one hand has an impact on the increasing cost of developing and producing strategic weapons. In this case, the system complexity of a type of sophisticated defense equipment tends to be directly proportional to the higher price of the system. Meanwhile, the defense industry as one of the entities that is relied upon in strategic development and production faces a dilemma between maintaining technological superiority and the ability to generate commercial profits.

This dilemma is one of the driving forces for strategic weapons development cooperation. Strategic weapons development collaboration is developing starting from aspects of policy cooperation between countries to implementation at the defense industry level of each country. With this collaboration, it is hoped that modern strategic weapons can be produced while maintaining the continuity of the defense industry owned by the countries involved. Collaborative development of defense equipment is considered an effective means of controlling R&D and production costs, as well as realizing the rationalization and standardization of weapons and military equipment (Setiadji, 2022).

The potential benefits of this strategic weapons development cooperation are quite broad. Cooperation in the development and production of defense equipment is carried out with a proportional distribution of R&D costs and workload. Production quantity can be further optimized so that production costs can be reduced, with the assumption that one system will be used by countries involved in cooperation. The cooperation program will also be useful for increasing interoperability between alliance partner countries with the same training substance and doctrine based on the similarity of the weapons systems used.

Weapons development collaboration is one of the prominent features in the defense system procurement policy in Western Europe. Various cooperation programs for the development and production of defense equipment have been and are being carried out in this area. Jaguar fighter (British-French) and Tornado (British, Italian and German) are examples of cooperation in the development and production of weapons carried out during the cold war. Weapons development collaboration in Europe tends to be wider with more and more diverse types of defense equipment, such as the Eurofighter Thyphoon fighter (Britain, Germany, Spain and Italy), Frigate Horizon (Italy and France) and Rampur Multi-Role Armored Vehicle / MRAV (Germany, Dutch and English). The United Kingdom, Germany, Italy and France also formed the Organization Conjoint de Cooperation en matiere d'Armament (OCCAR) institution to carry out the management function of cooperation programs for the development of defense equipment to make it more efficient.

Indonesia is also one of the countries that is collaborating on the development of defense equipment. In collaboration with China, Indonesia developed the C-705 missile which is currently being used as a strategic weapon on the Indonesian Navy's Fast Missile Ship (KCR). This collaboration between Indonesia and China is devoted to cooperation in the transfer of defense industry technology in the manufacture of C-705 missiles in 2014. This

cooperation is to fulfill 60 units of alusista in the framework of; (a) Increasing the defense capability towards the Minimum Essential Force (MEF); (b) Empowerment of the national defense industry; (c) Prevention and control of disturbances and violations of the law of the sea; (d) Improving public order and security; (e) Modernization of national security detection; (f) Increasing the quality of national policies. This cooperation between Indonesia and China is devoted to technology transfer cooperation in accordance with the mandate of Law No. 16 of 2012 concerning the Defense Industry in articles 3 and 4 which regulates the objectives and functions of organizing the defense industry, namely realizing independence in fulfilling defense and security equipment, maintenance services which will be used in the context of building reliable defense and security forces and making the national defense and security system self-sufficient

CONCLUSION

The defense industry is a national industry, both owned by the government and privately owned, whose products, either independently or in groups, can be used for the benefit of national defense. Obstacles to achieving defense independence prompted the government to seek new breakthroughs in building Indonesia's defense capabilities. The government has an important role in developing the defense industry, because the government acts as a decision maker (policy maker) as well as the sole buyer (monopsony) of domestically produced defense equipment. The government has the authority to regulate the budget and determine the amount of ownership, structure, process of entry and exit, efficiency and price, even down to setting the profit that can be received by the defense industry.

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