

CHAPTER 1

INTRODUCTION

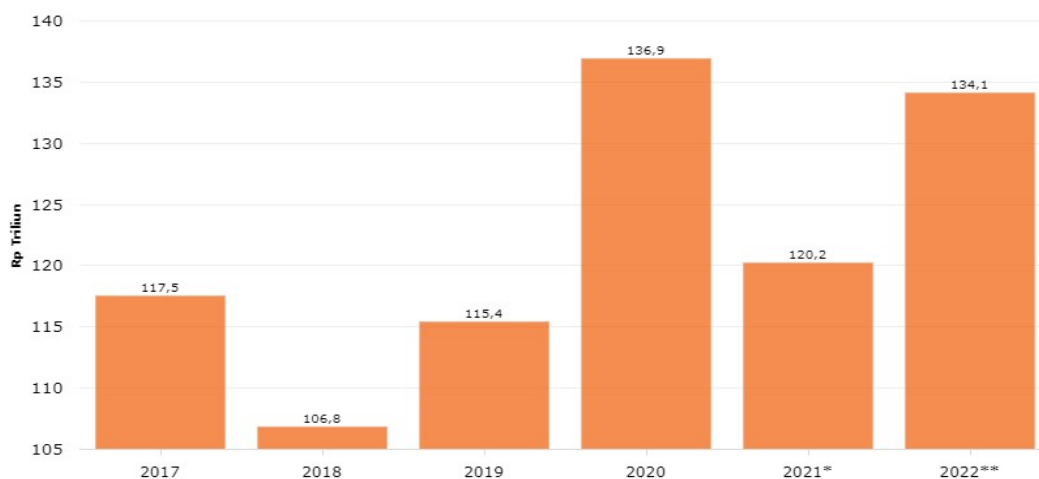
1.1 Background

National defense is a very important and crucial aspect in a country. Defense according to the Big Indonesian Dictionary (KBBI) is an effort to protect oneself or the state from enemy threats or attacks, both in military and non-military forms. The 2012 annex defines national defense as all efforts to uphold state sovereignty, the territorial integrity of the Unitary State of the Republic of Indonesia, and the safety of the entire nation. Universally, national defense is a basic element and is one of the main pillar elements in order to maintain the establishment of a country. The country's defense efforts are carried out by considering the dynamics of the form of threats faced. The development of the strategic environment always brings changes to the complexity of threats, both military threats and non-military threats. Minister of Defense Regulation Number 16 (Suoth et al., 2018).

The defense sector plays a strategic role in maintaining the stability and sovereignty of a country, playing a role not only in the national context but also in regional dynamics. At the national level, the existence of a solid defense force is the frontline in protection against all forms of threats, both military and non-military, that can shake domestic social, political, and economic stability. According to Barry in his book "Buzan (1991) People, States & Fear: An Agenda for International Security Studies in the Post-Cold War Era", maintained national security will present conditions conducive to development in various other sectors, create a safe environment for its citizens, and ensure that state sovereignty is not compromised by foreign interference. Furthermore, at the regional level, a strong defense sector of a country contributes to the balance of power, which is vital to prevent domination by a particular country and maintain regional stability. The balance of power theory, discussed among others by

Kenneth in (Waltz, 1979) his "Theory of International Politics", posits that regional stability is achieved when no one country is significantly stronger than the other, preventing possible aggression and rounding up of forces. This stability, in turn, creates an atmosphere conducive to cooperation between countries and regional integration, an aspect that is becoming increasingly important in the era of globalization.

However, the effectiveness of the defense sector depends largely on budget allocations. Sufficient funds allow the state to invest in advanced technologies, modern weaponry, quality training for personnel, and maintenance of defense infrastructure. All these aspects are important to maintaining a competitive military force. According to the Stockholm International Peace Research Institute (SIPRI) in its publication on global military spending, there is a strong correlation between financial investment in defense and countries' ability to guarantee national security and contribute to regional stability (SIPRI, 2021).



Graph 1.1 Indonesian Defense Budget Allocation 2017-2022

Source: BPS (2022)

The Indonesian government has allocated a defense function budget of IDR 134.1 trillion in the 2022 State Budget Draft (RAPBN). This allocation increases by 11% against the 2021 outlook with a budget of IDR 120.2 trillion. The defense function's budget in 2021 decreased by 12.2% from

2020. This decrease was due to the reallocation of budget expenditures to Ministries/Institutions (K/L). This reallocation is used to secure the procurement of national vaccines and vaccinations, handling the impact of the pandemic, social protection, and accelerating national economic recovery. Meanwhile, in 2020, the realization of the health function budget increased by 18.6% from 2019. This increase in realization is due to the fulfillment of medical material devices (Almatkes). In addition, there are also disciplinary operations for the implementation of health protocols in dealing with the Covid-19 pandemic. The budget is used for the procurement and maintenance of defense equipment, Military Operations Other than War (OMSP), and the construction / procurement of defense infrastructure. Then it is used to strengthen national food reserves. The government also plans to strengthen mental and cultural reform, as well as strengthen national values.

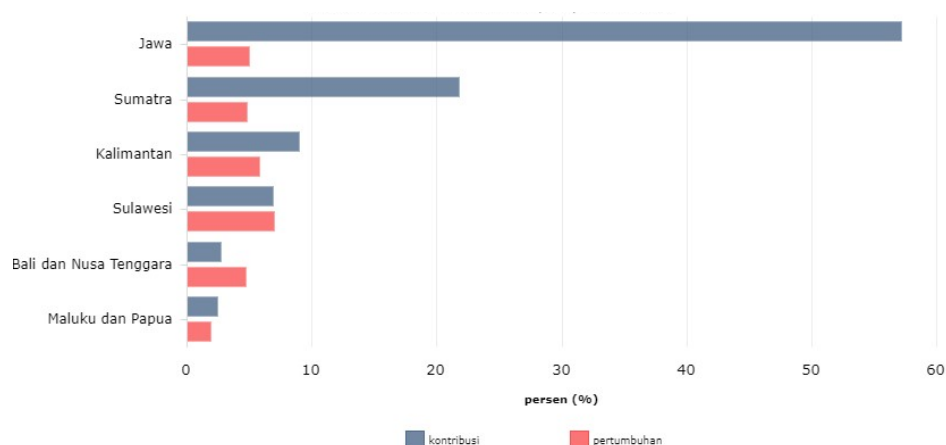
However, budget allocations for defense must also be balanced with other national needs. Over-allocation of funds can reduce investment in vital sectors such as health, education, and infrastructure, which also have a direct impact on homeland security. Therefore, it is important for each country to find the right balance in its budget allocation, ensuring that investment in defense does not come at the expense of other important needs. Such a strategy would guarantee that the country is not only safe from outside threats but also stable and prosperous from within, creating a solid foundation for continued regional sovereignty and influence. Regional economic dynamics, as measured through indicators such as Gross Regional Domestic Product (GRDP), play a significant role in determining the allocation of state budgets, including in the defense sector. GRDP, which reflects a region's total economic output, not only indicates a region's wealth or poverty but also indicates the region's fiscal capacity to fund various programs, including defense needs (Bahl danLinn, 1992).

When a region records a high GRDP, this usually reflects a stronger economy and greater revenues for local governments, meaning there are

more funds that can be allocated to different sectors. Conversely, regions with low GRDP may be limited in their ability to generate sufficient revenue, forcing governments to make difficult budget decisions, often among competing sectoral needs (Bird and Vaillancourt, 2006).

In the context of defense, this means that regions with stronger GRDP may have more resources to allocate significant budgets to the defense sector, supporting everything from the acquisition of sophisticated military equipment to better personnel training. On the other hand, regions with lower GRDP may find that they need to balance urgent needs such as health and education with investment in defense, which could result in delays or reductions in defense spending (Looney, 1993).

Taking this into account, it is important for policymakers to understand that budget decisions, including in the defense sector, cannot be made in isolation. Instead, the decision should take into account the broader economic circumstances and the dynamics of GRDP to ensure that budget allocations reflect the fiscal needs and capabilities of the region concerned. The right balance between defense spending and other domestic needs will not only support national security but also ensure that the country's economic foundation remains strong, creating an environment conducive to long-term growth and stability.(Sandler and Hartley, 1995).



Graph 1.2 GRDP Contribution and Economic Growth by Island

Source: BPS (2022)

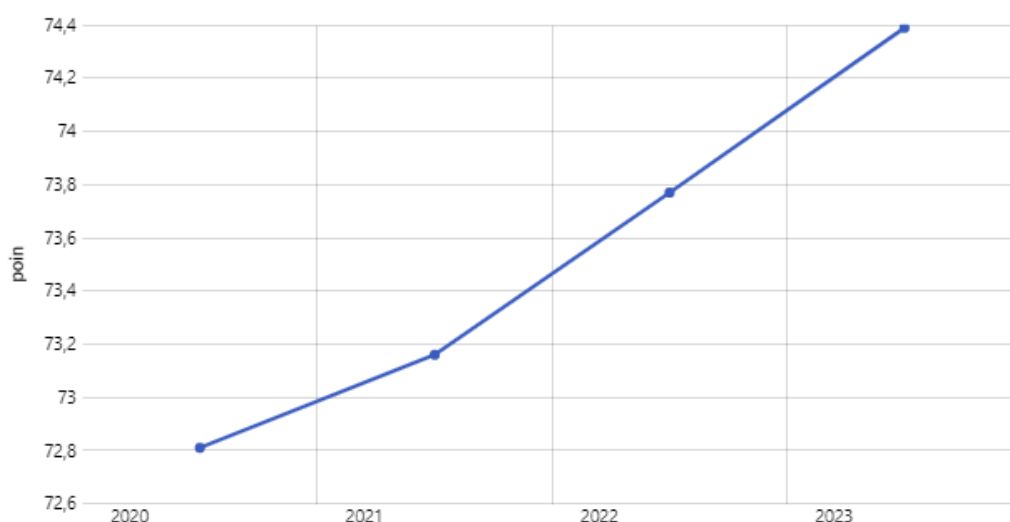
Indonesia's economic growth based on the amount of Gross Domestic Product (GRDP) in the first quarter (January-March) of 2023 reached 5.03%. This achievement cannot be separated from the contribution and growth of each region. Java Island still dominates the contribution of Gross Regional Domestic Product (GRDP) in the first quarter of 2023, amounting to 57.17%. This graph has increased from the fourth quarter of 2022 by 56.48%. The second position with the highest GRDP contribution is Sumatra, amounting to 21.82%. This graph has decreased from the fourth quarter of 2022 which could reach 22.04%. Third, there is Kalimantan, with a contribution of 9%. Meanwhile, Sulawesi contributed 6.87%. Another case with Bali and Nusa Tenggara which was able to contribute 2.68%. Finally, Maluku and Papua contribute 2.46% of GRDP.

In addition, the islands are also measured growth. Sulawesi is the island with the highest growth on an annual basis (year-on-year / yoy), at 7%. This graph slightly decreased in the fourth quarter of 2022, by 7.03%. The second highest growth was Kalimantan, which reached 5.79%. Java was only able to occupy the third position with a growth of 4.96%. The rest are Sumatra (4.79%), Bali and Nusa Tenggara (4.74%), and Maluku and Papua (1.95%).

"With the removal of the Community Activity Restriction (PPKM) policy on December 30, 2022, economic growth in most provinces shows strengthening," the Central Statistics Agency wrote in its official statement. For information, Gross Regional Domestic Product (GRDP) is one of the important indicators to determine economic conditions in a region in a certain period, both on the basis of current prices and on the basis of constant prices.

The Human Development Index (HDI) is a composite measure of various important aspects of human life, including health, education, and standard of living, which collectively determine the quality of a country's development. HDI was created by the United Nations Development Programme (UNDP) and has been widely used as an alternative to wealth

measurement that focuses on economic output such as Gross Domestic Product (GRDP) (UNDP, 2020). HDI measures health based on life expectancy at birth; education through access and quality of education, which is reflected in the average number of years of formal schooling undertaken by the adult population and the expected duration of education for children; and standard of living through gross national income per capita, adjusted for purchasing power (UNDP, 2020). This assessment is important because it highlights that a country's true progress lies not only in its prosperity, but also in how well its citizens can enjoy healthy lives, access to quality education, and sufficient resources to meet their needs (Mon, 1999).



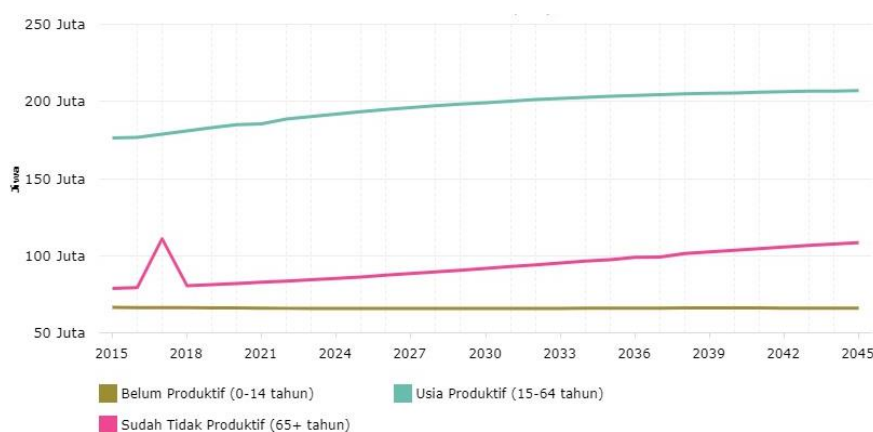
Graph 1.3 Human Development Index by Province (2022)

Source: BPS (2022)

The Central Statistics Agency (BPS) reported that Indonesia's Human Development Index (HDI) is at the level of 74.39 points in 2023. This graph increased by 0.84% compared to the HDI 2022, which was 73.77. Meanwhile, according to the trend, Indonesia's average HDI growth during 2020-2023 is 0.72% per year. The increase in HDI this year was driven by the growth of all its constituent indicators, namely life expectancy at birth (UHH) which reached 73.93 years in 2023. This dimension grew 0.31%

compared to 2022, which is 73.70 years, the old school expectancy (HLS) of the population aged 25 years and over which reached 13.15 years in 2023. The graph is up 0.38% from 2022 of 12.10 years and the average length of schooling (RLS) was recorded at 8.77 years this year, up 0.92% from 8.69 years in 2022.

Dependency ratio is a measure that shows the ratio of the number of individuals who are likely not to be fully employed in the economy (usually those under 15 years old and over 64 years old) with the number of individuals in the working age group (usually 15-64 years) (United Nations, Department of Economic and Social Affairs, 2019). This ratio is calculated by dividing the number of non-productive residents by the number of productive residents, and the result is multiplied by 100. The implications for economic and social burdens are significant: high dependency ratios may indicate that the financial and social burden of supporting non-productive individuals is devolved on smaller populations of workers, potentially putting pressure on welfare systems and public finances, as well as investment in health and education (Lee and Mason, 2011).



Graph 1.4 Projected Population of Indonesia Age Group (2015-2045)

Source: BPS (2022)

According to the Inter-Census Population Census, Indonesia's population will reach 269.6 million people in 2020. The number consists of

the unproductive age category (0-14 years) of 66.07 million people, the productive age (15-64 years) of 185.34 million people, and the unproductive age (65+ years) of 18.2 million people. Indonesia's population is projected to continue to grow to 318.96 million by 2045. Based on these data, Indonesia will experience a demographic bonus period until 2045. Where the number of productive age population is more than the non-productive population (unproductive and no longer productive). The number of productive age in 2020 reached 68.75% of the total population.

The abundance of productive age human resources should be utilized by improving the quality, both education and skills to welcome the industrial era 4.0. With this larger number of productive age population, Indonesia's dependency ratio is 45.46. That is, every 100 productive age population has dependents of 46 non-productive age residents.

A country's defense budget is a financial allocation set aside by the government to support all aspects of the military, including personnel salaries, maintenance, operation, and procurement of new equipment and technology (SIPRI, 2021). Factors affecting defense budget allocation include perceived or real security threats, international commitments, geopolitical interests, domestic economic pressures, and strategic or national ambitions.

In some cases, regional arms races, pressure from military alliances such as the North Atlantic Treaty Organization (NATO), and the domestic defense industry also play an important role in determining defense budgets (Bitzinger, 2019). Theoretical analysis of the interaction between the Human Development Index (HDI), dependency ratio, and defense budget allocation offers deep insight into how various development factors can influence a country's economic and strategic decisions. Differences in HDI and dependency ratios between countries illustrate variations in development priorities, which impact budget policies, including defense budgets.

HDI, measured through indicators of health, education, and standard of living, marks the level of human progress of a country. Countries with high

HDI typically enjoy socio-political stability, higher per capita income, and better levels of education (UNDP, 2020). Democratic peace theory states that these countries tend to have more peaceful international relations and more stable democracies, factors that contribute to stronger national security (Gleditsch and Hegre, 1997). Given this stability and security, countries with high HDI may feel less need to allocate significant resources to defense. Instead, their focus may shift to investments in social, educational, and health programs, further strengthening HDI.

Sometimes, this assumption contradicts the logic that rich countries with high HDI have more resources to allocate larger budgets to defense. Nonetheless, their strategic priorities are often more focused on improving the quality of life than military spending. Also, these countries may have global strategic interests that promote diplomacy and international cooperation as a means of maintaining stability, rather than relying on military force alone.

On the other hand, dependency ratios have important implications for budget decision making. A high dependency ratio indicates that a larger proportion of the population consists of economically unproductive groups, which are usually children and the elderly (United Nations, Department of Economic and Social Affairs, 2019). With a relatively smaller percentage of the working population, the financial and social burden of supporting this unproductive age group becomes heavier. Countries with high dependency ratios may find themselves in a position where urgent social expenditures – such as health, education, and social security – consume a significant share of national budgets (Lee and Mason, 2011).

In such a scenario, the defense budget can be viewed as a component that can be reduced, especially if there is no immediate threat to national security or pressure from international antagonists. The fiscal burden of a high dependency ratio, especially when combined with sluggish economic growth, can limit budget flexibility and require governments to make difficult decisions about where and how to allocate their limited

resources. The implication is that countries with high dependency ratios and urgent social needs may see defense spending as a luxury burden, especially if the military threat is not considered urgent. Conversely, in conditions where security threats are a real concern, a high burden dependency ratio can create difficult conditions, where governments must strike a balance between meeting the immediate needs of non-productive populations and ensuring national security. Overall, the relationship between HDI, dependency ratio, and defense budget is a complex issue that reflects not only a country's economic and social conditions but also its strategic and security priorities. Governments must analyze deeply to make decisions about resource allocation, striking a balance between ensuring the well-being of populations and defending national sovereignty and security.

In the current global order, examining the effect of HDI and Dependency Ratio on the Defense Budgets, by integrating GRDP as an intervening variable, offers important insights into macroeconomic policy and national defense strategies. HDI, a comprehensive measure of human well-being, encompassing health, education, and living standards, is often considered a barometer of the potential for innovation and growth in society, including the defense sector. Meanwhile, the Dependency Ratio, a comparison between non-productive and productive populations, can significantly influence budget allocation decisions, given the balance to be achieved between human development needs and security.

The integration of GRDP presents an additional layer of complexity, allowing in-depth analysis of how regional economic performance could affect, or be affected by, investment in defense. Taking these factors into account, the study attempts to uncover synergistic or possibly contradictory relationships between human development, socioeconomic burdens, and defense priorities, while highlighting how regional economic growth can be a catalyst that strengthens or reduces strategic investment in national defense.

1.2 Identify the Problem

Based on the background described above, several problems can be identified, namely:

1. Defense Budget Allocation Fluctuations: There were significant fluctuations in defense function budget allocations between 2020, 2021, and 2022.
2. Domination of GRDP Contribution by Java Island: Although economic growth is not the highest, Java Island still dominates GRDP contribution. This shows the economic imbalance between regions in Indonesia.
3. Despite the overall increase in HDI in Indonesia, there are still significant gaps between certain provinces. This can be seen from the comparison between DKI Jakarta which has the highest HDI with Papua which has the lowest HDI.
4. In 2045, it is projected that Indonesia's population will reach 318.96 million. Over time, the current productive age population will enter an unproductive age. This will increase the burden on social welfare systems, such as health care and pensions. How to prepare infrastructure and policies to handle this surge is a matter that needs to be anticipated.

1.3 Problem Limitation

Based on the identification of the problems previously described, there are various factors that can affect the Defense Budget. In this study, researcher focused on testing the factors that might affect the Defense Budget, namely the Human Development Index and Dependency Ratio associated with GRDP as intervening variables. The population of this study is all provinces in Indonesia. The research sampling technique is using the purposive sampling method, where the sample is in the form of all provinces in Indonesia as a population with the hope that the information needed has been published completely with a period from 2010 to 2022.

1.4 Problem Statement

Based on the background of the problem that has been described in this study, the following problem formulation can be prepared:

1. Does the Human Development Index have an effect on Gross Regional Domestic Product?
2. Does the Dependency Ratio affect Gross Regional Domestic Product?
3. Does Gross Regional Domestic Product have an effect on the Defense Budget?
4. Does the Human Development Index have an effect on the Defense Budget?
5. Does the Dependency Ratio affect the Defense Budget?
6. Does the Human Development Index have an effect on the Defense Budget with Gross Regional Domestic Product as the most important variable?
7. Does the Dependency Ratio affect the Defense Budget with Gross Regional Domestic Product as an intervening variable?

1.5 Research Objectives

This study aims to identify various factors that can affect the Defense Budget in this case are the Human Development Index and Dependency Ratio. Furthermore, researcher will analyze the effect of the Human Development Index and Dependency Ratio on the Defense Budget. Based on the formulation of the research problem above, the research objectives can be arranged as follows:

1. To analyze the effect of the Human Development Index on Gross Regional Domestic Product.
2. To analyze the effect of Dependency Ratio on Gross Regional Domestic Product.
3. To analyze the effect of Gross Regional Domestic Product on the Defense Budget

4. To analyze the effect of the Human Development Index on the Defense Budget.
5. To analyze the effect of Dependency Ratio on the Defense Budget.
6. To analyze the effect of the Human Development Index on the Defense Budget with Gross Regional Domestic Product as an intervening variable.
7. To analyze the effect of Dependency Ratio on the Defense Budget with Gross Regional Domestic Product as intervening variable

1.6 Research Benefits

With this research, it is expected to be able to provide the following benefits:

1. Theoretical Benefits

This research is expected to increase knowledge and understanding of the Defense Budget and can be one of the references in understanding the effect of the Human Development Index and Dependency Ratio on the Defense Budget with Gross Regional Domestic Product as an intervening variable.

2. Practical Benefits

Practically, the results of this research will provide benefits for various parties, namely:

- a. Government: The results of this study will provide guidance to the government in formulating appropriate policies and strategies to improve the quality of human resources in the defense sector and utilize the potential of the Dependency Ratio effectively. Governments can use research findings as a basis for developing training and education programs tailored to national defense needs, as well as designing policies that encourage active public participation in support of national defense.
- b. Defense and Security Institutions: Defense and security institutions will gain insight into the factors affecting the Defense

Budget. This will assist them in designing long- and short-term strategic plans to address challenges and utilize the Dependency Ratio in support of the country's defense mission.

- c. Academics and Researcher: The results of this study will be a valuable contribution to academia and researcher in the field of defense and population studies. Research findings can be used as a reference for future research and become reference material for developing theories and concepts related to the effect of HDI and Dependency Ratio on the Defense Budget.
- d. Education and Training Industry: The education and training industry can utilize the results of this research to identify human resource needs in the defense sector. By knowing what is needed by the government and defense institutions, the industry can develop appropriate and relevant training programs to improve the quality of human resources in the defense sector.
- e. Society: The results of this study will provide an understanding to the public about the importance of their role in supporting national defense. The public will realize how their contribution in creating quality human resources and utilizing the Dependency Ratio can have a positive impact on the security and defense of the country.