GLOBAL DEFENSE INDUSTRIALIZATION AND COOPERATIVE BEHAVIORS OF MAJOR POWERS

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

ÖZDE ASLI AKBAY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
THE DEPARTMENT OF INTERNATIONAL RELATIONS

FEBRUARY 2021

Approval of the thesis:

GLOBAL DEFENSE INDUSTRIALIZATION AND COOPERATIVE BEHAVIORS OF MAJOR POWERS

submitted by **ÖZDE ASLI AKBAY** in partial fulfillment of the requirements for the degree of **Master of Science in International Relations, the Graduate School of Social Sciences of Middle East Technical University** by,

Prof. Dr. Yaşar KONDAKÇI
Dean
Graduate School of Social Sciences _____

Prof. Dr. Oktay TANRISEVER
Head of Department
Department of International Relations _____

Assoc. Prof. Dr. Fatih TAYFUR
Supervisor
Department of International Relations _____

Examining Committee Members:

Assoc. Prof. Dr. Pınar İPEK (Head of the Examining Committee)
TOBB University of Economics & Technology
Department of Political Science and International Relations _____

Assoc. Prof. Dr. Fatih TAYFUR (Supervisor)
Middle East Technical University
Department of International Relations _____

Prof. Dr. Faruk YALVAÇ
Atılım University
Department of International Relations _____

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last Name: Özde Aslı AKBAY

Signature:

ABSTRACT

GLOBAL DEFENSE INDUSTRIALIZATION AND COOPERATIVE BEHAVIORS OF MAJOR POWERS

AKBAY, Özde Aslı
M.S., The Department of International Relations
Supervisor: Assoc. Prof. Dr. Fatih TAYFUR

February 2021, 171 pages

This thesis analyzes global defense industrialization and the cooperative behaviors of major powers in this process. In order to explain the patterns of cooperation in the globalization period, a comparative historical analysis based on a case study approach will be conducted. With this aim, the influence of political, economic, and technological dimensions of global defense industrialization on cooperative behaviors of major actors will be explored following an eclectic approach based on Neorealist, Neoliberal institutionalist, and regionalist theories. In this thesis, it will be argued that the power statuses of major powers influence their cooperative behaviors in the scope of the global defense industrialization process, which, in the twenty-first century, has a more regional characteristic.

Keywords: Defense Industrialization, Cooperation, Globalization, Regionalism, Securitization

ÖZ

KÜRESEL SAVUNMA SANAYİLEŞMESİ VE BÜYÜK GÜÇLERİN İŞ BİRLİKÇİ DAVRANIŞLARI

AKBAY, Özde Aslı
Yüksek Lisans, Uluslararası İlişkiler Bölümü
Tez Yöneticisi: Doç. Dr. Fatih TAYFUR

Şubat 2021, 171 sayfa

Bu tez, küresel savunma sanayileşmesini ve bu süreçte büyük güçlerin iş birlikçi davranışlarını analiz etmektedir. Küreselleşme dönemindeki iş birliği modellerini açıklamak için, bir vaka çalışması yaklaşımına dayalı karşılaştırmalı bir tarihsel analiz yapılacaktır. Bu amaçla, küresel savunma sanayileşmesinin siyasi, ekonomik ve teknolojik boyutları, büyük aktörlerin işbirlikçi davranışları üzerindeki etkisi, Neorealist, Neoliberal kurumsalcı ve Bölgeselci teorilere dayanan eklektik bir yaklaşımla araştırılacaktır. Bu tezde, yirmi birinci yüzyılda daha bölgesel bir niteliğe sahip olan küresel savunma sanayileşme süreci kapsamında, büyük güçlerin iktidar statülerinin işbirlikçi davranışlarını etkilediği savunulmuştur.

Anahtar Kelimeler: Savunma Sanayileşmesi, İş birliği, Küreselleşme, Bölgeselcilik, Güvenlikleştirme

To my family

ACKNOWLEDGMENTS

It would not have been possible to write this thesis without the support and help of many people around me who affected my study both directly and indirectly. Therefore, I would like to mention them and extend my gratitude.

First and foremost, I am deeply grateful to my supervisor, Assoc. Prof. Dr. Fatih Tayfur for all his support and advice for my academic studies, my professional career, and private life. He helped me to enrich my skills in theoretical research and develop a larger perspective for this work. I would also like to thank him for his excellent guidance throughout my graduate years and his unconditional patience and encouragement during this thesis' writing phase, which coincided with a hopefully once-in-a-lifetime pandemic.

I would like to express my thanks to my thesis advisory committee members Prof. Dr. Faruk Yalvaç and Assoc. Prof. Dr. Pınar İpek, for their guidance.

I would like to extend my gratitude to Prof. Dr. Holger H. Mey for sharing his valuable ideas with me and providing me further subjects to study, and Prof. Dr. Hüseyin Bağcı for his precious and critical contribution to my thesis and his encouragements to keep pursuing an academic career.

I would like to express my gratitude to Yusuf Levent Aksoy for being a supportive brother rather than a manager during the time we worked together and after. I would like to acknowledge Turkish Aerospace for supporting me to continue my academic studies while working. Many thanks to my former colleagues from the Helicopter Contracts Management team of the company.

I also would like to thank Ingo Flunkert for being the big brother of ours and doing the best favor that somebody can do to support a friend's dreams. Thanks to my friends Duygu Tuncer, Ceren Özsönmez Kuyucu, and Aslı Yılmaz for always being by my side despite long distances. Many thanks to "Temel Patik" and its members Gözdecan

Ulugüler, Göker Ulugüler, Elif Tunç, and Orkun Alemdaroğlu for being the most ‘engineer’ humans in my life who do not let me become 100% social scientist, while also being a family to me. Thanks to my friends Arda Kavasoğlu, Serdar Başdemir, Selen Tamer, Sema Nur Seisoğlu, Eren Aykaç, and Sevgi Özdemir for their never-ending support from the beginning until the end. Many thanks to Ecenur Güvendik for re-appearing in my life at the rightest time possible with all her energy; to Aslı Aygüneş for being a member of our small family in Graz during the most unforgettable times of our lives.

Thanks to all the devoted members of TADOK and the unconditional love of TADOK's cats and dogs. Many thanks to my beloved girls Bediş and Merlin, for becoming a part of my life and making me who I am today.

I want to express my deepest gratitude to the members of my big family; Hatice Akbay, Mürvet Güngör Otaran, Teoman Otaran, Saadet Türk, and Faruk Türk; my lovely parents Sehavet and Ömer Boslu; my brother Ahmet Boslu, my sister Özge Çimen Boslu and my super-grandmother Nezaket Güngör for their support, confidence, patience, and love.

Special thanks to my love and my best friend Efe Baran Akbay for walking this long path right beside me, extending his love unconditionally, supporting my dreams even at what seemed to be the darkest times of our lives, believing in me more than I believe myself and always encouraging me to leap further distances in my academic and professional careers. I am happy to have you in my life, and I heartily thank you for your incredible patience and love. Lastly, the most special thanks to my boys Turşu, Ferat, and girl Çorba, for adopting me as their human parent and supporting me emotionally with their love and not eating the work I conducted.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

AMD-Cell: Air and Missile Defense-Cell

BMD: Ballistic Missile Defense system

CAATSA: Countering America's Adversaries Through Sanctions Act

CDP: Concept Demonstration Phase

CPP: Cooperative Program Partner

ESA: European Space Agency

E.U.: European Union

FMS: Foreign Military Sales

FSM: Future Submarine Program

G2G: Government-to-government

GLONASS: Global Navigation Satellite System (USSR)

GNSS: Global Navigation Satellite System

GPS: Global Positioning System

ICBM: Inter-Continental Ballistic Missiles

JAST: Joint Advanced Strike Technology

JSF: Joint Strike Fighter

KAMD: Korea Air and Missile Defense system

LP/IA: Local Production/Import Acquisition

MIS: Military Import Substitution

MNC: Multinational Corporation

MSE: Missile Segment Enhancement

NATO: North Atlantic Treaty Organization

NEG: New Economic Geography (theory)

PAC: Patriot Advanced Capability

PKK: Kurdistan Workers' Party

PNT: Precise navigation and timing

PYD: Democratic Union Party

RAN: Royal Australian Navy

R&D: Research and Development

RSCT: Regional Security Complex Theory

SCP: Security Co-operation Participant

SDD: System Development and Demonstration

SIPRI: Stockholm International Peace Research Institute

STT: Strategic Trade Theory

TAF: Turkish Armed Forces

TEI: Turkish Engine Industries

TFX: Tactical Fighter Experimental

TF-X: Turkish Fighter-Experimental

THAAD: Theater High Altitude Area Defense

TIV: Trend Indicator Value

UAE: United Arab Emirates

UNSC: United Nations Security Council

U.S.: United States

USSR: Union of Soviet Socialist Republics

WWI: World War I

WWII: World War II

YPG: People's Protection Units

CHAPTER 1

INTRODUCTION

Defense industries of *major powers*[1] play an essential role in global security issues. In addition to that, defense industrialization as a process aiming to reach the ultimate goal of complete independence in production and transfer of military equipment is a significant aspect of states' national security-related concerns. The process of defense industrialization and its impacts on security both on national and global levels have been essential objects of research, especially since the beginning of the twentieth century due to the increasing number of conflicts and wars with greater destructiveness caused by advanced military technology. As the world entered in globalization age from the end of the twentieth century onwards, the need for analyzing the concept of defense industrialization in detail concerning the requirements of the new century was heightened. Therefore, the twenty-first century's defense industrialization needs to be analyzed from the perspective of relevant International Relations theories and concerning the developing events of the new era, since states and non-state actors are increasingly being involved in cooperative defense industrialization projects due to the political, economic, and technological developments in the new global age.

A considerable amount of literature has been published on security, while also a significant portion of those has been dealing with the defense industries. Previous studies have investigated the relationship between defense industries and security mostly from the Realist or Liberal perspectives due to their similar understandings of

[1] In this study, the term 'major powers' refers to superpowers, great powers, and regional powers of the global defense industrialization process.

the anarchical world order. However, literature has not been dealing extensively with the concept of defense industrialization since it is a relatively new concept compared to the concepts of war or security. As the world entered the globalization period, the meaning and importance of 'industrialization' has changed, and the requirements for survival under anarchy have been transformed. As the world has become more globalized, inter-state industrial cooperation became a more valid option for state relationships to maintain their survival in the uncertain anarchical environment. Cooperative activities between states were also observed in global defense industrialization; however, both Realism and Liberalism have distinctive interpretations regarding states' cooperative behaviors.

This study's primary objective is to investigate cooperative state behavior in the process of global defense industrialization. In particular, this research seeks to address the following question: “do states’ power in terms of defense industrialization influence their cooperative behaviors?”. Therefore, this study initially uses the Liberal and Realist interpretations to investigate states' cooperative behaviors when they engage in large-scale defense industrialization projects with multiple program partners. Then it applies an eclectic approach with a regional focus, which also draws on both Realist and Liberal interpretations, Neorealism and Neoliberal institutionalism in particular. For this study, a more comprehensive framework to include political, economic, and technological dimensions is a more useful method to answer the research question since defense industrialization is heavily connected to the global and national security considerations. In addition to that, Realism and Liberalism offer complementary explanations for state behavior in terms of global defense industrialization activities; since global defense industrialization is a three-dimensional process having political, economic, and technological features; therefore, it is not possible to use a pure Realist or Liberal lense when analyzing it. For instance, although Neoliberal institutionalism favors cooperation and Neorealism considers cooperation as a valid relationship pattern to a certain extent, even under anarchy, Neorealism still offers competition as an alternative state behavior for situations where cooperation is not possible.

This dissertation follows a case-study design and includes analyses of defense industrialization processes of each subject state. In this study, four cases will be investigated: each case occurs in the twenty-first century and involves major powers who are also arm supplier states with significant defense industrialization backgrounds. This study's data were collected using qualitative methods such as observation and interviewing and other mediums such as newspapers, websites, and articles.

This study provides an opportunity to advance our knowledge about states' cooperative behaviors with strong power statuses and global arm supplying capabilities under anarchy. Furthermore, the study contributes to research on the topic of cooperation in global defense industrialization by referring to different case studies with similar findings that demonstrate the impacts of global defense industrialization on states' cooperative and competitive behavior patterns.

A full discussion of the role of nuclear weapons in global defense industrialization and their impact on states' cooperative or competitive behavior patterns lies beyond the scope of this study.

This project was conceived during my time working for Turkish Aerospace. As an International Contracts Executive working in the Helicopter Division of the company, I witnessed the political, economic, and technological characteristics of sales conducted within the scope of defense industrialization activities. It is my experience of working in the T129 ATAK Helicopters foreign sale projects that have driven this research.

The overall structure of the study takes the form of six chapters, including this introductory chapter. The second chapter of this thesis initially explains the concept of *defense industrialization,* which has been in use as a term since at least 1979. According to the popular definition, defense industrialization is a process where states invest in their domestic technical capabilities to reduce their dependency on foreign supply in terms of military equipment. The definition suggests that states tend to attach great importance to their defense industrialization processes due to the strong

correlation between possessing an independent defense industry and assuring national security. The chapter continues with the comparison of Liberal and Realist understandings of security and defense industrialization.

This study also incorporates regionalism in the form of a Neorealist concept suggested by Robert Gilpin (2001) to solve the problems of competition and as a method of cooperation under anarchy. According to Gilpin, the regions with strong leaders at the core and peripheral members around that core would form a more suitable setting for cooperation, especially for the sectors such as defense industries with high-security requirements. Gilpin also supports his claim by establishing his New Economic Geography theory and argues that the global defense industries are already shaped according to his regionalism principle.

However, this study also incorporates Barry Buzan and Ole Wæver's (2003) Regional Security Complex Theory (RSCT) and their '1+4+x' framework for the investigation since neither Liberalism nor Realism even with a regionalist perspective, can be efficient to explain the cooperative behavior patterns of major actors in the twenty-first century's global defense industrialization process. Buzan and Wæver suggest that one superpower, four great powers, and x number of regional powers are the major actors of global security, which is strongly connected to states' defense industrialization processes as this study argues. According to their RSCT, the world consists of four main regions in which states are interdependent for their regional securitization. Buzan and Wæver's theory and framework are significant for this study because the theory's subject states are also powerful defense industrializers of the globalization era, according to Stockholm International Peace Research Institute's (SIPRI) data. For this study, SIPRI was chosen as the database because it provides the necessary import and export data for the thirty-year period between 1990 and 2019, which is useful for determining the power of the subject states concerning their defense industrialization processes. As a result of comparison between the SIPRI import-export data and Buzan and Wæver's theory and framework, the subject states to be investigated were designated as the superpower United States; great powers European

Union, China, Russia, and Japan; and regional powers India, South Korea, Turkey, Australia, Israel, and Canada.

The third chapter initially gives a brief overview of the defense industrialization processes of subject states and argues that the twenty-first century's defense industrialization process needs to be analyzed by an eclectic approach. The third chapter also explains the reasons for choosing Buzan and Wæver's Regional Security Complex Theory (RSCT), Gilpin's theories of regionalism and New Economic Geography (NEG) along with a Neorealist and Neoliberal institutionalist background for the analysis of the process. After providing a brief historical background on each subject state's defense industrialization process, this study moves on to explain the political dimension of defense industrialization along with its economic and technological dimensions.

Chapter four reviews the historical background of the global defense industrialization to investigate the cooperative and competitive behaviors of the states involved in the process on different levels. Although the starting point of the timeline has been chosen as the catapult's invention in 399 BC, the larger part of this chapter focuses on the twentieth century since the global-era defense industrialization was mostly influenced by the developments of that period. The brief historical background investigation follows relevant developments until the end of 2019. The historical evolution of the process demonstrates that defense industrialization has been shifting from being a national process towards a global and, lately, a regional process.

The fifth chapter presents the collected data focusing on four separate case studies. Each case study involves more than one subject state with super, great, or regional power statuses. All subject states demonstrate competitive or cooperative behaviors when engaging in defense industrialization relations with other state or non-state actors either in or out of their region. This chapter also draws upon the entire thesis in designating the cases to be evaluated.

The first case study of this thesis involves the superpower U.S., one great power Russia, and one regional power, Turkey, also an insulator state. In the first sub-section

of the fifth chapter, initially, the American F-35 Joint Strike Fighter (JSF) program, Turkish participation in the program, Turkish procurement of Russian-made S-400 missile systems, and Turkish T129 ATAK Helicopters' sale to Pakistan were presented in detail referring to the political, economic and technological capabilities of United States, Russia, and Turkey. It was demonstrated in this case that United States has been exercising its 'super' power in the process of Turkish defense industrialization as a response to Turkey's cooperation move addressing Russia, which the U.S. has not approved. In thar section, it was also argued that the great power Russia's involvement in the case and Turkey's insulator status are the most significant determinants for understanding the involving states' competitive behaviors.

The second case investigates the cooperative behaviors of superpower U.S., great power China and regional power South Korea in a terms of defense industrialization process. After South Korea deploys the U.S.-made missile defense systems due to regional security concerns, it faced severe objections and sanctions by China on the ground that such transaction would disturb the regional balance and security. The conflict resulted in the South Korean decision to proceed with an indigenous development project again due to regional security concerns. The Korean case demonstrates that China has risen as a significant great power against the superpower United States in the Asia-Pacific region even to force South Korea, which is a significant regional power, to adopt moderate policies at the expense of possible political, economic, and technological opportunities that are promised by further cooperation with the U.S.

The third case study involves the United States as a superpower; European Union, Russia, and China as great powers; India, Israel, Canada, and South Korea as regional powers. The third sub-section of the chapter presents the historical background of the European dissatisfaction with a U.S.-controlled satellite system GPS, then briefly describes the evolution of the European-made satellite system Galileo by referring to the European regional cooperation and integration along with superpower penetration to the region. The section also investigates the cooperative behaviors of the major powers involved in the project by referring to the theories incorporated in this study.

The last case study of this thesis focuses on the development of the Australian submarine program. As in the previous cases, the last case also involves the United States as the superpower, France and Japan as great powers, and Australia as a regional power, both according to Buzan and Wæver's framework and SIPRI data. The case investigates the Australian decision to initiate a new submarine development program and subsequent program partner selection phase. Although the final Australian decision regarding cooperation in defense industrialization process is highly affected by its technological considerations; the different approaches it had about choosing its cooperation partner for the submarine development program until the final decision phase demonstrates the effects of power statuses of the United States, China, and Japan on the regional security considerations in the globalization age.

As an answer to the research question stated at the beginning of this introductory chapter, the argument of this thesis suggests that states' powers in terms of the global defense industrialization process influence their cooperative behaviors, since the case studies support this claim. All four cases involve the superpower, at least one great power and a regional power to illustrate how those actors' power differences, which are influenced by the regions they belong affect their cooperative behaviors in terms of defense industrialization.

Finally, the conclusion briefly explains the findings, argues whether hypotheses match the findings, and critiques those findings.

Throughout this study, the terms 'arms industry' and 'defense industry'; 'weapons,' 'weaponry,' 'arms,' and 'armaments' have been used interchangeably.

CHAPTER 2

THEORETICAL FRAMEWORK AND CONCEPTUAL CONSIDERATIONS

A large and growing body of literature has investigated the role of states' security concerns under the anarchical world order. Although it has an extended background as a longstanding concept, the understanding and application of security have been evolving accordingly as the modern world entered into the globalization phase. However, one should still be primarily concerned about the characteristics of anarchy to analyze states' security concerns in the globalization era because the interaction between anarchy and other elements of the international system more or less defines security's mode of operation.

Defense industrialization has been an essential tool for states when dealing with national and global security issues. Although it is not clear who coined the term for the first time in history, the term 'defense industrialization' was used in a newsletter advertisement of the Strategic Asian Affairs newsletter in the back matter of Foreign Affairs as early as 1979.[2] As Andrew L. Ross explains, possessing an autonomous defense industry would enable states to manage better the effects of external constraints on policy and behavior to preserve their national security.[3] Although all developed and developing states have the options of domestic production, import, or a mixture of the two,[4] the main tendency has been pursuing the process of defense

[2] "Back Matter," *Foreign Affairs* 57, no. 5 (1979): A-29, www.jstor.org/stable/20040332.

[3] Andrew L. Ross, "Arms Acquisition And National Security In The Third World," *ACDIS Occasional Paper*, (1986): 1-2, https://www.ideals.illinois.edu/handle/2142/104107.

[4] Ibid., 2.

industrialization to possess relatively self-sufficient defense industries.[5] Either named as defense industrialization, military industrialization, or defense industrial growth, the term refers to the process where states gradually improve their self-reliant status in producing indigenous military equipment to reduce their dependency on foreign suppliers. Mainly, states pursue defense industrialization because adopting a pure import-oriented approach in decisions regarding their defense industries would bring the threat of arms embargoes and severe restrictions such as delays and suspensions in the deliveries of spare parts.[6] According to Ross, states can either acquire their arms from multiple suppliers, adopt the method of Military Import Substitution (MIS) or apply the mixture of Local Production/Import Acquisition (LP/IA) to break the dominance of one supplier and eliminate the risks. Simply put, MIS is a process of reducing dependence on foreign sources which involves five stages: firstly, states assembly the imported equipment; then, they start to produce components under license agreements with foreign suppliers. Thirdly, states start manufacturing equipment under license with the know-how derived from the component-production stage. In the fourth stage, states further improve their technical know-how as a result of the previous stages. In the last stage, states start producing indigenous designs in cooperation with foreign sources or with all domestic capabilities. LP/IA is similar to the latest stage of MIS; its suggestion for states is to produce what they can produce indigenously and import the rest. However, as Ross argues, states that apply MIS in their defense industrialization still have to import to some extent, since no state can be purely self-sufficient in their national defense industries. Therefore, states can either acquire their arms from single or multiple foreign suppliers or mix local production with import acquisition.[7]

This chapter compares and contrasts how Realism and Liberalism in general evaluate security-related issues as an initial step in analyzing global defense industrialization to provide a theoretical background. Both schools of thought agree that states operate in

[5] Moon Chung-in, "The Political Economy of Defense Industrialization In South Korea: Constraints, Opportunities, and Prospects," *The Journal of East Asian Affairs* 5, no. 2 (1991): 438. www.jstor.org/stable/23253549.

[6] Ross, “Arms Acquisition and National Security,” 4-15; Chung-in, "The Political Economy of Defense Industrialization,” 440.

[7] Ross, “Arms Acquisition and National Security,” 19-36.

an anarchical world order where there is no overarching authority over sovereign states, and every individual state is responsible for its own security in such an anarchical environment. The international order has been described as a self-help system both by Realism and Liberalism due to the aforementioned state responsibility.[8] As Ross argues, the process of defense industrialization would support the self-help characteristic of the system under anarchy since possession of the autonomous defense industry has been a critical feature of assuring national security.[9] However, Liberal and Realist schools disagree on how the states respond to the self-help system, and such disagreement consequently affects Liberal and Realist perceptions about global defense industrialization. While Liberals, especially Neoliberal institutionalists, argue that even in a self-system, security can be achieved through cooperation;[10] Realists and particularly Neorealists mostly despise the operability of cooperation in such an environment.[11] Therefore, the primary motive for applying a two-dimensional framework involving such Realist and Liberal perspectives for the analysis of global defense industrialization is to investigate the cooperative and competitive behaviors of the states in the anarchical self-help system in terms of global defense industrialization then come up with an eclectic approach including relevant features of both schools of thought.

2.1. Liberal Perception of Security and Defense Industrialization

As a Liberal concept for defining the operation of the markets, capitalism argues that the world consists of great powers with their comparatively weaker subjects, and both parties theoretically have equal chances to reach resources. Therefore, in a capitalist system, state intervention to economic activities of non-state actors should be limited, hence private enterprises would build up their strength to operate and cooperate effectively in this free market where all participants get their shares, and even some of

[8] Helen Milner, "The Assumption of Anarchy in International Relations Theory: A Critique," *Review of International Studies* 17, no. 1 (January 1991): 67-69. www.jstor.org/stable/20097244.

[9] Ross, "Arms Acquisition and National Security," 1-2.

[10] Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (New Jersey: Princeton University Press, 1984), 10-11.

[11] Kenneth N. Waltz, *Theory of International Politics* (Philippines: Addison-Wesley Publishing Company, Inc., 1979), 1-210.

the participants can gain more. Furthermore, according to James Burnham's Managerial Revolution Theory, a *managerial* society that can *manage* the system and possess the necessary capital resources is likely to maintain the capitalist system. Managerial society, which is an extension of the capitalist society, can only be formed with the help of technological developments since technical superiority will bring power. Simply, technological advancements will shape the capitalist society into its managerial form consisting of a small number of powerful states with advanced industries and technological know-how.[12] Burnham's Managerial Revolution Theory is also reflected in the Liberal understanding of global defense industrialization since the world consists of a small number of major powers with advanced technologies in producing and transferring defense equipment. Those major powers also happen to manage the process of global defense industrialization. Therefore, according to the Liberal perspective and in terms of global defense industrialization, the first actor of the capitalist and anarchical world order is the state, which forms the managerial society when supported by technological advancements.

Furthermore, Liberals and predominantly Neoliberal institutionalists argue that non-state actors' role is as significant as state actors for the functioning of capitalist and anarchical world order. According to Joseph S. Nye, Multinational corporations (MNCs) are one of the key non-state actors of the capitalist system. However, MNCs are perceived as an economic threat by states because being an actor as involved as a state in global affairs encourages MNCs to increase their shares in the total economic gains, thereby causing shrinkings in the total shares of states.[13] Such intimidating position of MNCs demonstrates the increasing significance of MNCs as a significant actor in the capitalist anarchical world order. According to Neoliberal institutionalism, MNCs also have an essential role as primary actors in global defense industrialization due to their involvement in security-related issues. Nye suggests that MNCs can involve in global issues either directly or indirectly through influencing or

[12] James Burnham, *Managerial Revolution or What is Happening in the World Now* (London: Putnam and Company Limited, 1942), 3-271.

[13] Joseph S. Nye, "Multinational Corporations in World Politics," *Foreign Affairs* 53, no. 1 (October 1974): 153-75, https://doi.org/10.2307/20039497.

manipulating their home and host governments' economic and political policies and decisions. It would not be possible to think of security without accepting the significance of multinationals as actors since a state's national security is more or less affected by the same political and economic factors.[14]

After designating the most significant global defense industrialization actors, one might move on to investigate the relationship patterns of those actors. States and other actors such as international institutions and MNCs are interconnected with each other through strong bonds. Those strong bonds create a complex interdependence network that cannot be easily avoided by the global actors.[15] As Joseph Nye and David Welch argue, interdependence can come in different forms. In a globalized world, the military interdependence between states is an essential determinant for states' security-related concerns or decisions because any significant increase in one state's military capabilities would affect the competition with its allies or enemies. Similarly, yet distinctively, economic interdependence also comes with the risk of high costs in the event of application of an inefficient economic policy. However, for some Liberals, economic interdependence's benefits are greater than its risks since all participants have the chance to acquire equal shares from resources. Nevertheless, Nye and Welch suggest that economic interdependence requires states to seriously consider their relative gains as well as their absolute gains due to the political character of interdependence.[16]

The risks and costs of interdependence also need to be considered by states and non-state actors since it creates a certain level of *sensitivity* and *vulnerability* for those actors. It can be argued that although all states and non-state actors are sensitive to the events taking place in another part of the world on different levels and get affected by them due to globalization and interdependence, not all states are vulnerable. High-level vulnerability derives from the lack of responsiveness to the world's occurring

[14] Ibid., 153-75.

[15] Joseph S. Nye and Robert O. Keohane, "Power and Interdependence Revisited," *International Organization* 41, no. 4 (Autumn 1987): 725-53. www.jstor.org/stable/2706764.

[16] Joseph S. Nye and David A. Welch, *Understanding Global Conflict and Cooperation: An Introduction to Theory and History* (Boston, London: Pearson, 2017), 306-8.

restrictive events due to incapability of the actors or non-existence of alternatives. Furthermore, engaging in an *asymmetric* interdependence can be problematic for states and non-state actors since those actors tend to manipulate the interdependences that they see themselves on the relatively powerful side. However, although states, in particular, are concerned about their symmetrical relations with other actors of the global world order, they do not often break those interdependences since such action would create worse consequences and lead to strong retaliation.[17]

According to the Neoliberal institutionalist notion, cooperation between the global actors is an inevitable result of interdependence. As such, Neoliberal institutionalism argues that the global actors of capitalist anarchical world order tend to cooperate to ensure security.[18] Therefore, states might choose to cooperate in the process of global defense industrialization on economic or technical grounds rather than a political ground because political interpretation considers the process of defense industrialization as a tool to reduce states' dependence on foreign suppliers due to the national security considerations. Such political interpretation conflicts with the Neoliberal institutionalist notion of interdependence in an open and free market.

Liberal perception of the global environment suggests that although the defense market cannot easily be considered an open market where participants freely cooperate, the reality demonstrates an ongoing and increasing competition between states that possess defense industries.[19] According to Liberalism, in order to stay active in such a competitive global environment, states with domestic defense industries encourage their national defense industry producers to participate in the competition through cooperation.[20] Historically, especially after World War II, states started to buy defense equipments from foreign resources or produce them at home to increase their defensive and offensive capabilities. The latter was mainly preferred by strong and capable states

[17] Ibid., 308-13.

[18] Nye and Keohane, "Power and Interdependence," 729.

[19] Ethan B. Kapstein, "Losing Control: National Security and the Global Economy," *The National Interest*, no. 18 (Winter 1989/90): 86, www.jstor.org/stable/42894648.

[20] Keith Hayward, "The globalisation of defence industries," *Survival* 43, no.2 (2001): 115-132, https://doi.org/10.1093/survival/43.2.115.

because dependence on foreign supply for defense equipments meant insecurity;[21] and independent indigenous production meant security.[22]

Even though defense industrialization aims to reach the ultimate goal of self-sufficiency and, consequently, preserve national security, it is an expensive process to undertake. As Raymond Vernon and Ethan B. Kapstein argue, any state that follows the defense industrialization path accepts in advance the high investment costs and a continuation of the trade flow of foreign components in the meantime until the aim of sufficient indigenous production is achieved.[23] Therefore, the overall Liberal understanding suggests that states would overcome the growing burden of indigenously producing defense equipment's increasing costs through cooperation and distributing the weight on multiple interdependent producers.[24]

2.2. The Liberal Mode of Operation in Defense Industrialization: Cooperation

In the global defense market, states can cooperate both in terms of production and trade to share technological know-how, common markets, risks, and production costs. By doing so, projects get accomplished in shorter periods; states would reach each other's domestic markets more efficiently; and finally, bearing all the costs and risks of a project would not be burdened on one state. Furthermore, states would be able to keep jobs at home by conducting joint projects in the high-technology complex defense production.[25]

States might choose to seek production through **licensing**, **technology transfers**, **co-development**, **co-production**, **sub-contracting**, or **establishing MNCs** to globalize their defense industries with cooperation. *Licensing* gives states a certain level of

[21] Trevor Taylor, "Defence Industries in International Relations," *Review of International Studies* 16, no. 1 (January 1990): 59, www.jstor.org/stable/20097208.

[22] Richard A. Bitzinger, "The Globalization of the Arms Industry: The Next Proliferation Challenge," *International Security* 19, no. 2 (Fall 1994): 170-98, https://doi.org/10.2307/2539199.

[23] Raymond Vernon and Ethan B. Kapstein, "National Needs, Global Resources," *Daedalus* 120, no. 4 (Fall 1991): 1-22, www.jstor.org/stable/20025401.

[24] Taylor, "Defence Industries in International Relations," 70.

[25] Bitzinger, "The Globalization of the Arms Industry," 171.

flexibility because multiple producers share the burden of cost and responsibility to produce already existing equipment. *Technology transfers* also include technical data and personnel sharing between states and corporations, and it is a widely used way of cooperation. *Co-development* is a riskier way of cooperation since it involves more initial production steps, such as designing non-existing equipment. However, it is a widely preferred type of cooperation because it provides each involving party a certain level of technical know-how, and it is still more inexpensive than producing alone. *Co-production* is often a continuation of co-development, and it refers to joint production of a defense item. *Sub-contracting* simply refers to procurement from foreign resources.[26] Finally, *multinational corporate defense organizations* or multinational corporations (MNCs) in which multiple states cooperate to produce defense equipment provide the optimal maneuverability both in political and economic realms. As Trevor Taylor argues, this final form of cooperation is what states are mainly seeking in the global industrialization age when entering the international market. The reason for the increased preferability of MNCs is that cooperation through establishing MNCs allows states to by-pass many costly and time-consuming regulations imposed by governments.[27]

As Vernon and Kapstein suggest, although defense producers are interdependent and bound to cooperate in the global market, such cooperation is not without difficulties.[28] In defense industries, it is practically impossible to imagine a scenario where each participant contributes equally since contributions and acquisitions of different participants would most likely depend on the nature of the work and the participant's capability. Furthermore, once there is a change in the interest of one participant with slightly more advantage over the others, the relatively weaker parties could get hurt more than they expect to be hurt in cooperation.[29] Another downside of the cooperation methods such as export or licensing is that they require high costs for states to bear.

[26] Ibid., 175-88.

[27] Taylor, "Defence Industries in International Relations," 69.

[28] Vernon and Kapstein, “National Needs, Global Resources,” 1-22.

[29] Kapstein, "Losing Control: National Security,” 85-90.

Also, Raymond Vernon and Ethan Kapstein argue that today's ally may become tomorrow's enemy, and export agreements signed during alliance times may be subjected to quotas or, worse, embargoes due to the changes in the political or economic arena in the future. In such an event of conflicting interests, the risk of being left vulnerable by the supplier state is a serious concern of the recipient state. Similarly, licensing as another way of cooperation brings a potential risk of being abused by the licensee: for instance, it is not possible to have full control over the licensee to ensure that the weapons are being used only by the designated end-user in practice, even though it is strictly banned by the agreement to sell the weapons acquired through licensing to third parties.[30]

In political terms, defense industries are tightly connected to states' national security because producing military equipment requires to include at least some level of classified technical know-how that can be associated with the producer's military capabilities.[31] It is an expected outcome for states to demonstrate a high level of control over their production and trade activities in the defense market. However, as Taylor points out, defense corporations are influenced mainly by the international structure instead of their home governments.[32] Moreover, in terms of efficiency, states are expected to loosen their control over defense corporations to allow such corporations to carry out the most optimal industrialization plans related to their economic concerns, including cooperation with other actors. According to this line of thought, the existence of the state as an essential actor for the security policies centered on defense industrialization is a hard fact; however, the state's roles are limited to control the actions being carried out within the industry to confirm whether they pose a threat for national security or not.[33]

[30] Vernon and Kapstein, “National Needs, Global Resources,” 16.

[31] Hayward, “The globalisation of defence industries,” 115-32.

[32] Taylor, "Defence Industries in International Relations," 66.

[33] Hayward, “The globalisation of defence industries,” 118.

Even though establishing and maintaining a working international security without an intricate and well-designed plan in the modern global environment is not possible,[34] global defense industrialization, as being one of the significant features of security, can be shaped to address the issues raised by such an environment. Ethan Kapstein determines possible responses to globalization problems from the defense industrialization perspective while focusing on the United States as the unit of his analysis.[35] Nevertheless, extending his ideas to use on a larger scale is possible: the anarchical capitalist world order. From the political and economic points of view, state intervention is always possible, and in some cases, necessary in order to maintain security. However, states have to be aware of the consequences of those interventions, such as high costs. One way of escaping from those high costs can be stated as involving cooperative organizations to encourage free trade within the group. Increased production and trade partners equal decreased costs due to economies of scale. Therefore, cooperation within relatively smaller groups such as North Atlantic Treaty Organization (NATO) would be a midway to balance threats with cautions.[36]

2.3. Realist Perception of Security and Defense Industrialization

Realist understanding stands on the opposite side of Liberal thought on most, if not all, security considerations in the anarchical world order and the role of defense industrialization in such an environment. Although anarchy and its influence on security issues are at the core of both Realist and Liberal understandings of the world system, Realism places more emphasis on such concepts and argues that states are the main actors of the system. Non-state actors such as MNCs are not as significant as states to be considered as primary actors. In fact, states are the *only* significant actors of the anarchical world order because, according to Realist understanding, states never choose their economic gains at the expense of their security considerations when faced with a threat,[37] and MNCs are not primary actors in anarchical world order since their

[34] Kapstein, "Losing Control: National Security," 89.

[35] Ibid., 85-90.

[36] Ibid., 88-9.

[37] Waltz, *Theory of International Politics*, 105-07.

existence would only contribute to the story's economic part. Furthermore, according to Kenneth Waltz's Neorealist definition, all the other minor actors operate in an environment with no central and overarching authority over *the state*, therefore when in doubt, states cannot reach out to any authority but themselves. That refers to the self-help characteristics of the international order, as mentioned earlier in this chapter.[38]

Another evidence that demonstrates Neorealism's emphasis on anarchy as the mode of operation in the international order is *the security dilemma*. In the anarchical environment where states have only themselves to trust in terms of their security-related concerns, one state's increased armaments might be interpreted as an offensive move by the other members of the international environment, and such condition may lead to a chain of arming movements, increasing day by day.[39] According to Neorealists, states engage in arms races in order to survive in an uncertain environment, which is reflected in the fear that states feel for each other,[40] because states claim that it is not possible to measure another state's real intentions for arming itself. Even though the arming party has only defensive intentions when engaging in such activity, the possibility and therefore *threat* of using those weapons with offensive objectives in the future is enough for its neighbors to take serious measures against it.[41] John Mearsheimer defines that state of the global order as a constant and ongoing security competition that cannot be considered as a distinct feature of anarchy.[42]

It is vital to measure the *offense-defense balance* within the system in order to assess the role of security dilemma in the Neorealist anarchical world order. The balance can be simply explained as the state's decision to invest either in offensive or defensive

[38] Ibid., 88-93.

[39] Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics* 30, no. 2 (January 1978): 169-70, www.jstor.org/stable/2009958.

[40] John J. Mearsheimer, "The False Promise of International Institutions," *International Security* 19, no. 3 (Winter 1994-1995): 10-1, https://doi.org/10.2307/2539078.

[41] Waltz, *Theory of International Politics*, 161-93.

[42] Mearsheimer, "The False Promise of International Institutions," 5-49.

weapons.[43] Such investment decision is essential to determine a state's position within the international system because it shows the state's willingness to either *compete* or *cooperate* with other states.[44] Furthermore, offense-defense differentiation, which can be explained as the offensive weapons' disposability with defensive purposes and vice versa, is also an important issue to understand security dilemma[45] since the quality and quantity of military assets that states possess are among major determinants of security in the anarchical world order.[46]

Balance and differentiation between its offensive and defensive forces should be considered in making sense of a state's security policy, including the decisions regarding the process of national defense industrialization because the dominance of one side can be indicative of the existence of a security dilemma. According to Robert Jervis, if the defensive characteristics of a state's forces are more dominant than their offensive characteristics, a security dilemma would not arise at all. Deploying mostly defensive forces means showing one's hand to the others and ensuring that the state is willing to cooperate, it does not mean to harm others. On the other hand, if the offensive forces of a state are more dominant than its defensive forces, that would increase the security dilemma because such action would be perceived as aggression by other states since they can not be sure of the real intentions of the state with offensive forces.[47] In addition to that, because of the balancing behavior of states, an increase in the offensive weapons of one state leads other states to acquire similar *offensive* weapons paving the way to decreased security; while an increase in the defensive weapons of one state leads other states to acquire similar *defensive* weapons paving the way to increased security.[48] International conflicts are caused by statesmen who do not understand the dynamics of anarchy, especially security dilemmas.

[43] Jervis, "Cooperation Under the Security Dilemma," 187-99.

[44] Charles L. Glaser, "Realists as Optimists: Cooperation as Self-Help," *International Security* 19, no. 3 (Winter 1994-1995): 51, https://doi.org/10.2307/2539079.

[45] Jervis, "Cooperation Under the Security Dilemma," 199.

[46] Glaser, "Realists as Optimists," 56-7.

[47] Jervis, "Cooperation Under the Security Dilemma," 187-99.

[48] Charles L. Glaser, "The Security Dilemma Revisited," *World Politics* 50, no. 1 (October 1997): 176, www.jstor.org/stable/25054031.

Without considering that increased volume of arms leads to decreased security, statesmen might decide to boost their arming activities to protect their state from a potential threat and increase national security.[49]

In terms of defining the relationship patterns between the actors of the international system, Realist and particularly Neorealist school is skeptical of the Neoliberal institutionalist claim about the interdependency of actors in the anarchical world order when it comes to national security considerations since the security dilemma is a hard fact. According to Robert Gilpin, states continue to be primarily concerned about their national security since the world order is still a self-help system, even though globalization increases integration among states to some extent.[50] Furthermore, Neorealism disagrees with the Neoliberal institutionalist statement, which suggests that economic interdependence brings more integration. According to Neorealism, states cannot be equally dependent on each other in real life, one would eventually gain more, and that would break the integration and interdependence.[51] On the other hand, it is not practically likely for all the participant states to gain equal pieces from the whole even though they cooperated and agreed on equal gains in the first place. Eventually, there will be minor and significant differences between those states. Such differences are what make competition the dominant characteristic of the international order.[52]

2.4. The Realist Mode of Operation in Defense Industrialization: Competition

One of the most fundamental assumptions of the Realist and Neorealist notion is that states always try to maintain the balance of power by preventing aggressors. Balance of power theory suggests that states are likely to be involved in alliances with other states to stand up against the aggressor. However, according to Neorealism, when states are torn between choosing competitive or cooperative behavior to increase their

[49] Jervis, "Cooperation Under the Security Dilemma," 182.

[50] Robert Gilpin, *Global Political Economy: Understanding the International Economic Order* (New Jersey: Princeton University Press, 2001), 12-9.

[51] Waltz, *Theory of International Politics*, 104-07.

[52] Gilpin, *Global Political Economy*, 77.

security, they tend to choose competition over cooperation since alliance building is a cooperative behavior, a relatively Liberal concept. States do not willingly involve cooperations due to the self-help character and uncertainty of the system, and states tend to risk other possible gains to guarantee national security since survival is the primary instinct of theirs. Moreover, states do not trust each other, and they watch their neighbors' military capabilities closely because of the same self-help character of the international order.[53] As such, even though some states make their defense investments while seeking to build alliances,[54] states generally do not prefer to engage in cooperative activities when it comes to their defense industries.

Considering such an uncertain and complex environment, Stephen M. Walt upgrades the balance of power theory to a more explanatory level and argues that, instead of seeking to balance the most powerful one, states seek to balance *against* the most threatening one in the system. According to his *balance of threat* theory, states are inclined to see other states with more significant resources as a threat, and they tend to balance against them. Similarly, Stephen M. Walt suggests that in a system where states as main actors do not trust each other, security can be achieved either through *bandwagoning* or *balancing*. According to Walt's theory, balancing occurs when states cooperate to balance an aggressor; bandwagoning occurs when states join the aggressor to compete with the rest of the states. Although reality suggests that states tend to balance against a threat for maintaining security,[55] theorists such as Randall L. Schweller argue that bandwagoning is a wiser solution for states[56] even though it creates a less secure and more competitive international order. The most significant issue about balancing against or bandwagoning with a threat is that it demonstrates 'to which extent states are willing to cooperate with each other.' For Neorealist understanding, balancing together with weak states against the aggressor 'before it

[53] Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars* (New York: Cornell University Press, 1984), 16.

[54] Stephen M. Walt, *The Origins of Alliances* (New York: Cornell University Press, 1987), 9.

[55] Stephen M. Walt, "Alliance Formation and the Balance of World Power," *International Security* 9, no. 4 (Spring 1985): 4-8. https://doi.org/10.2307/2538540.

[56] Randall L. Schweller, "Bandwagoning for Profit: Bringing the Revisionist State Back In," *International Security* 19, no. 1 (Summer 1994): 72-107, https://doi.org/10.2307/2539149.

increases its power' is an act of cooperation; and bandwagoning with the aggressor 'to be on the winner's side before it is too late to cross over' is an act of competition.[57] Such preference by the state is significant in determining its security policies, including the decisions about defense industrialization.

According to Neorealism, cooperation between states is difficult. Most of the Neorealists attribute such difficulty to the world's anarchical structure and the system's conflictual and competitive characteristics.[58] Waltz argues that cooperation increases dependency, and as time passes, it becomes more difficult to break such dependency with lower costs. That problematic position of cooperation is also reflected in global defense industrialization. When the supplier state is not the best alternative according to the recipient's political and economic concerns, the supplier should be aware of the possibility of being replaced with another supplier and losing all of its privileges that it gained through this cooperation.[59] Furthermore, contrary to popular belief, cooperation decreases security since dependency increases the likelihood of conflict. Simply explained, as states become exposed to each other more than before due to increased dependency, their likelihood of developing strong disagreements would be relatively higher.[60] Additionally, in terms of defense industrialization, today's weak recipient can be tomorrow's potent threat through the acquisition of military weapons from capable suppliers.[61] Therefore, in theory, one should not expect to see large volumes of cooperation between states in terms of defense industrialization. Even in the case of balancing against a common threat through diplomacy or coalitions, it is highly possible for some states to give up on the cooperation at some point and choose to cheat and bandwagon with the threat due to the challenging characteristics of the cooperation under anarchy.[62] However, despite all difficulties, even for Neorealists, it

[57] Walt, "Alliance Formation," 3-43.

[58] Joseph M. Grieco, "Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism," *International Organization* 42, no. 3 (Summer 1988): 485, www.jstor.org/stable/2706787.

[59] Walt, "Alliance Formation," 28-9.

[60] Waltz, *Theory of International Politics*, 104-07.

[61] Walt, "Alliance Formation," 28-9.

[62] John J. Mearsheimer, "Back to the Future: Instability in Europe after the Cold War," *International Security* 15, no. 1 (Summer 1990): 15-6, https://doi.org/10.2307/2538981.

is still possible to cooperate under certain circumstances. Robert Jervis supports this idea by arguing that cooperation is possible and, in a way, necessary because states cannot fight with the aggressors all alone; they would eventually need allies.[63]

Similarly, according to some other Neorealists, cooperation is possible even under anarchy. For global defense industrialization, when the 'technology' variable is added to the equation, especially in the globalization age, one *could* expect to see moderate levels of cooperation between states since technological advancements can only be achieved with multiple contributors.[64] However, according to Gilpin's Strategic Trade Theory (STT), states are inclined to resort to protectionist measures for specific national industries such as defense industries. In such industries, free trade is not a rational mode of operation due to national states' security considerations; therefore, state interference in defense industries is inevitable and rational. States also might be able to shift the profits from foreign firms to their domestic companies operating in the defense sector by interfering in the operations of defense industries, and that would increase the state's overall wealth.[65]

As a feature of anarchy that limits the inter-state cooperation, the concept of *relative power* is worth adding to the security equation. Neorealists see relative powers of states more critical than absolute power as opposed to Neoliberal institutionalists.[66] Possession of the most advanced weapons would not contribute to one's security unless those weapons are *relatively* more advanced than the adversary's weapons. By knowing the aggressor's military capability, states on the defensive end could choose to deter, and that would increase security in parallel. In that sense, a state's relative power is determined by its military capabilities.[67] According to Waltz and Mearsheimer, it is always possible for one state to gain more than others in

[63] Jervis, "Cooperation Under the Security Dilemma," 14-6.

[64] Richard R. Nelson, *National Innovative Systems: A Comparative Analysis* (New York: Oxford University Press, 1993), 15.

[65] Gilpin, *Global Political Economy.* 122-7.

[66] Mearsheimer, "Back to the Future," 5-56.

[67] Ibid., 12-3.

cooperation, making other states uncomfortable with their *relative gains*.[68] Furthermore, even though states build alliances to cooperate, there is always the possibility of some states to *cheat* and break the cooperation. Relative gains and cheating together make the relative power of states a critical concern to take into consideration before engaging in cooperations under anarchy.[69]

Robert Gilpin argues that *regionalism*, which is increased by global integration, has emerged as one way of overcoming the problems mentioned earlier of competition under anarchy. According to Gilpin's state-centric analysis of the International Political Economy, regionalism as a way of promoting state interests and increasing the competitive positions of states requires a strong power in the region's center. Such requirement can be attributed to the fact that states *within* the region would not willingly give up on their own resources to enter into alliances in the first place; therefore, there is a need for a leader to arrange and manage the operations in the region. The real world also demonstrates relevant examples; although international trade is developing at high speed, there are still primary players such as the United States, Western Europe, Japan, Russia, and China whose security interests shape the whole international system. In that sense, Gilpin argues that, first, the security interests of such primary powers, second, all the other states have a large effect on global political and economic issues.[70] Gilpin's *New Economic Geography* (NEG) theory is useful for explaining certain states' primacy in terms of global defense industrialization and understanding the problems created by competition. According to NEG of International Political Economy, some industries, such as military industries, are strong at one location and not at another due to *historical coincidence.* Simply put, the founders wanted to build their industries at that particular location. Then in the process of time and after establishing such industries, such coincidental locations became *core* hubs due to accumulation by other participants around that core. Same industries that were not lucky enough to be in the right place at the right time still created their own

[68] Waltz, *Theory of International Politics*, 104-07; Mearsheimer, "The False Promise of International Institutions," 5-49.

[69] Grieco, "Anarchy and the Limits of Cooperation," 487.

[70] Gilpin, *Global Political Economy,* 12.

relatively smaller hubs on other locations. However, those latecomers had to settle for the title of the *periphery*.[71] Gilpin elaborates his argument by referring to Brian Arthur and Paul David's concept of 'path dependence' and suggests that the conflict between core and periphery is inevitable since the core would like to maintain its superiority and the periphery would like to escape from staying in the corner.[72]

Gilpin describes regional integration as a multivariate concept that cannot be oversimplified to be explained by one ideology such as Realism, Neorealism, Liberalism, or Neoliberal institutionalism. Neorealism supports the idea of protectionist policies under all circumstances, while regionalism accepts the fact that there might be certain times that such policies become outdated. Similarly, Neoliberal institutionalism supports the idea of cooperation in the functioning of world order, while the competition within the system supports regionalism as a form of integration. Hence, Gilpin argues that the concept of regional integration requires a more *eclectic* approach.[73]

2.5. Eclecticism and Major Actors of Global Defense Industrialization

This investigation synthesizes Neorealist and Neoliberal institutionalist ideologies to create an eclectic approach that aims to provide a comprehensive understanding of cooperative state behavior in the process of global defense industrialization, which is accepted in this study as a feature of securitization. Therefore, this study also incorporates Barry Buzan and Ole Wæver's regionalist perspective, which was further explained in their book "Regions and Powers: The Structure of International Security" (2003), because the concept of securitization is explained in detail by their constructivist approach.[74]

---

[71] Ibid., 117-122.

[72] Philip W. Anderson, Kenneth J. Arrow and David Pines, *The Economy as an Evolving Complex System* (Florida: Westview Press, 1988), 11-23; Gilpin, *Global Political Economy,* 117-122.

[73] Gilpin, *Global Political Economy,* 358-61.

[74] Barry Buzan and Ole Wæver, *Regions and Powers: The Structure of International Security* (New York: Cambridge University Press, 2003).

Realism's state-centric and polarity-oriented focus, as well as Liberalism's grave concern regarding the *deterritorialization* and globalization of the anarchical world is not comprehensive enough to explain the securitization concerns of states in the twenty-first century. Buzan and Wæver argue that although it is possible to see non-territorial connections involving both state and non-state actors in the globalization period, security as a notion is mostly dominated by territoriality. Therefore, it would be more explanatory to adopt an eclectic approach that also incorporates *regionalism* when analyzing the actors' security-related relations.[75]

As explained earlier, states tend to place their security concerns in the center of their defense industrialization decisions. Especially, states with relatively more advanced defense industries and their security concerns are more effective in shaping the global environment than any other actors'. Therefore, it is necessary to differentiate the 'states with relatively more advanced defense industries' since the superiority derived from technological advancement is also a determinant for security and defense industrialization. According to Buzan and Wæver, major powers can be appropriately categorized as superpowers, great powers, and regional powers.[76]

In their book dated 2003, Buzan and Wæver have categorized global powers according to their spheres of influence since the end of the Cold War. According to the post-Cold War period's *1+4+x* model, the international system consists of one *superpower* (United States) that can reach and influence every corner of the world with its political, economic, and military power. *Four great powers* (Russia, China, European Union[77] and Japan) have spheres of influence narrower than the superpower's but larger than the regional powers'. Finally, an unspecified (x) number of *regional powers* demonstrate a certain level of influence within one specified region, and the names of those regional powers depend on the region. In such a framework, all major powers are state actors except for European Union, which is accepted as a great power

[75] Ibid.

[76] Ibid., 30-7.

[77] The United Kingdom was included in this study as a member of the European Union due to this investigation's selected time frame.

alongside Russia, China, and Japan. Buzan and Wæver argue that such exception applies to the European Union, which is a regional alliance, because all the other actors in the global system treat it as a great power.[78]

This study incorporates Buzan and Wæver's power categorization as well as their Regional Security Complex Theory (RSCT) since it is a well-developed theory that explains the twenty-first century's securitization patterns, which also predominantly affects the globalization period's defense industrialization process. As the authors argue, the theory is also useful for empirical analysis. Buzan and Wæver developed the RSCT to explain how the power politics between the superpower and great powers operate in the new global order because they see the national and global level of explanations as irrelevant to security. According to Buzan and Wæver, Realism's national level is useful only for nation-states' security concerns, which adds little contribution to the system level since it is a state-centric approach. Similarly, Liberalism's global level is by no means useful since there is no such working concept as global security. Therefore, according to the authors, the regional level of explanation is the rational choice because it provides the relevant analysis as a midway solution between the two poles.[79]

RSCT suggests that states that are close to each other are more interdependent in terms of their securitization concerns since threats travel short distances more easily than long distances. Therefore, states form regional clusters with other geographically close states for protection against threats from another location of the world that is not in their *Regional Security Complex* (RSC). In theory, the RSCs are not necessarily *only* composed of geographically closer states; however, the regions designated by the theory consist of the states that are more or less in the same geographical region due to the theory's assumption about traveling of threats and distances.[80]

[78] Buzan and Wæver, *Regions and Powers*, 37-9.

[79] Ibid., 3-5.

[80] Ibid., 40-51.

There are multiple reasons why this study incorporates Buzan and Wæver's RSCT to analyze the global defense industrialization process. Firstly, RSCT not only includes polarity-based assumptions and a regional approach regarding core-periphery relations of Neorealism; but it further develops those concepts into the regionalism of the global period. Secondly, the RSCT argues that the regional clusters are shaped according to the patterns of *amity* and *enmity* between the actors who shape those clusters, instead of a mere result of them balancing each other under anarchy as Neorealism would claim. Thirdly, the unique concept of 'insulator state' developed by RSCT to explain strategic positions of actors who continuously deal with more than one significant regional security dynamic due to their geographical location makes the theory useful for analyzing certain global defense industrialization events in the twenty-first century. Lastly, Buzan and Wæver argue that more intensive security relations are found *within* regional clusters; however, it is also possible to see patterns of security relations *between* the clusters, mostly in the form of a great power *penetrating* from another region or the superpower reaching out to another region. Regions with great powers are more likely to develop inter-regional relationship patterns with other regions than the standard regions without a great power. Therefore, it can be argued that the globalization period's defense industrialization process needs to be evaluated both on global and regional levels, through political, economic, and technological lenses, and always in terms of the actors' securitization concerns.[81]

Buzan and Wæver divide the world into four main regions according to the global actors' power relations and regional amity and enmity patterns. Asian supercomplex[82] consists of China and Japan as great powers and South Korea, Australia, India, and Pakistan as regional powers such. RSCs in the Middle East and Africa consist of no such great powers but regional powers such as Israel. RSCs in the Americas consist of United States as the superpower and Mexico and Canada as regional powers. The European supercomplex's two great powers are European Union and Russia. The European supercomplex also involves Turkey as a regional power and an insulator

[81] Ibid.

[82] Regional clusters that include one or more than one RSC and great power. Inter-regional relations are more intensive in supercomplexes compared to regular RSCs.

state on the region's edge without including it in its two RSCs (Western European RSC and post-Soviet RSC).

According to Buzan and Wæver's conceptualization, those four main regions are made of RSCs. Asian supercomplex consists of two RSCs: South Asian RSC with India, and East Asian RSC with China, Japan, South Korea, and Australia. The Middle Eastern RSC involves Israel, while RSCs in Africa have many insulator states in northern Africa. North American RSC with the United States and Canada, and South American RSC, constitute the RSCs in the Americas. Lastly, the European supercomplex has two RSCs: the European Union dominates European RSC, and Russia dominates post-Soviet RSC. Buzan and Wæver add Turkey to the European supercomplex as an insulator state which does not belong to any RSC. All four main regions have their own mode of interaction to be applied in relations within the region, with the superpower and great powers.[83]

Although Buzan and Wæver's theory was introduced in 2003, its prediction regarding power categorizations of states has been virtually accurate and valid even in 2020 and for the twenty-first century's global defense industrialization process. As will be discussed in the case studies, all the regions designated by Buzan and Wæver's theory exist in the twenty-first century's global defense industrialization process. At the same time, those regions demonstrate the two dominant characteristics of the theory: power relations and patterns of enmity and amity. However, as of the end of the second decade of the twenty-first century, it can be argued that the theory requires certain modifications. For instance, the European supercomplex is slightly problematic considering its members and what the RSCT suggests for their interaction patterns. It might be argued that Russia has shifted away from European supercomplex towards Asian supercomplex to cooperate with China considering its securitization behavior in the period between 2003 and 2020. Therefore, a revisited RSCT might change Russia's category according to Russia, China, and European Union's current relationship patterns.

[83] Buzan and Wæver, *Regions and Powers*, 40-439.

Stockholm International Peace Research Institute's (SIPRI) Arms Transfers Database generates the necessary data to demonstrate whether the aforementioned superpower, great power, and regional power statuses can also be attributed to the states which are highly operative in global defense industrialization or not. In terms of trade of defense equipment and on the supplier side of the arms transfers, the first place belongs to the superpower United States. The U.S. is followed by great powers European Union, Russia, China, and Japan since 1990, respectively but not consecutively. The second biggest portion of the figures in the SIPRI Trend Indicator Values (TIVs) of arms exports is shared among members of the European Union, a number of regional powers such as Israel, South Korea, Canada, and Turkey with high rankings (see Appendix: SIPRI Data Table-1).[84]

After accepting the United States' superpower status as a fixed variable due to its ranking in the global defense exporters list, the states that import from the superpower while also possessing a certain level of export volume on their own were designated. Firstly, the top 75 major arms recipients list[85] (see Appendix: SIPRI Data Table-2) and the list of arms recipients from the United States[86] (see Appendix: SIPRI Data Table-3) were compared in order to come up with the major American defense industrialization cooperators concerning both the production and trade relations in between. Then, the results of the first comparison and top 50 major arms suppliers list of the period between 1990 and 2019[87] were compared to designate which cooperating states also demonstrate a certain level of export volume large enough to be considered a major global supplier. This new generated data demonstrated that India, China, South Korea, Turkey, Japan, United Arab Emirates (UAE), Australia, Israel, Singapore,

[84] "Trend Indicator Values (TIV) of Arms Exports: 50 Major Arms Suppliers, 1990-2019," Stockholm International Peace Research Institute (SIPRI), accessed April 22, 2020, http://armstrade.sipri.org/armstrade/page/toplist.php. The sample size was chosen because the list's remaining members' total supply volume is roughly equal to the total supply volume of 1 superpower and 4 great powers of RSCT.

[85] "Trend Indicator Values (TIV) of Arms Imports: 75 Major Arms Recipients, 1990-2019," Stockholm International Peace Research Institute (SIPRI), accessed April 22, 2020, http://armstrade.sipri.org/armstrade/page/toplist.php. The sample size was chosen because the total import volume of the list's remaining members is roughly equal to the total supply volume of 1 superpower and 4 great powers of RSCT.

[86] "Trend Indicator Values (TIV) of Arms Exports from United States, 1990-2019," Stockholm International Peace Research Institute (SIPRI), accessed April 22, 2020, http://armstrade.sipri.org/armstrade/page/values.php.

[87] "TIV of Arms Exports: 50 Major Arms Suppliers, 1990-2019," SIPRI.

Canada, Indonesia, Norway, Brazil, Switzerland, South Africa, Jordan, Kazakhstan, and most of the members of European Union cooperate with the superpower United States in their defense industrialization processes with various volumes of imports. At the same time, those states have their own channels of military export.

Along with the superpower and four great powers, the regional subjects that were analyzed in this study include India, South Korea, Turkey, Australia, Israel, and Canada due to the fact that the most prominent characteristics of defense industrialization processes of those countries have been cooperation and competition in the twenty-first century. In addition to that, those six states are counted as regional powers according to Buzan and Wæver's RSCT. Finally, Buzan and Wæver's framework of 1+4+x has been applied to the SIPRI's data set to determine whether a specific state that demonstrates regional securitization patterns in the twenty-first century's global defense industrialization process can be counted as a superpower, great power, or regional power.

The case study approach in the time frame between the years of 2000 and 2019 was used to provide an explanatory view for defense industrialization in the globalization era. The reason for choosing the twenty years for case studies, while the subject states were chosen according to the export and import volumes of their defense industries during the thirty years beginning from 1990, was to analyze globalization's effects on the 'longstanding' major defense industrializers. Setting the time frame to cover the twenty-years period beginning from 2000 for case studies while using a thirty-years time frame for choosing the subjects to be evaluated serves as a tool to designate current rankings and situations of the defense industry players who have also been considered as major actors before the globalization era.

CHAPTER 3

NATURE OF DEFENSE INDUSTRIALIZATION

In this study, the process of global defense industrialization has been investigated within the scope of cooperative and competitive state behavior regarding both arms production and arms transfers. Therefore, it is essential to clarify what is meant by 'arms' before investigating the role of production and transfer of arms in the process. As Frederic Pearson explains, arms are basically everything that can be used to harm opponents.[88] The invention of cannon in the fourteenth century has been considered as a milestone for the global arms production and transfers[89] due to the succeeding innovations and developments in metallurgy and other related sciences. Such developments accelerated global defense industries' overall production.[90]

Pearson argues that arms production and sales are significant due to states' security considerations from the industrial perspective.[91] Keith Krause suggests that arms production and trade have been significant factors for international politics due to their political characteristic shaped by state considerations of power, wealth, and war. Simply stated, states pursue to be militarily, economically, and diplomatically superior to other actors of the international anarchical system. The three distinct yet coherent considerations of states are influential in the development of global military

[88] Frederic S. Pearson, *The Global Spread of Arms: Political Economy of International Security* (Colorado: Westview Press, 1994), 7-8.

[89] Keith Krause, *Arms, and the State: Patterns of Military Production and Trade* (New York: Cambridge University Press, 1992), 1; Frederic S. Pearson, *The Global Spread of Arms*, 8.

[90] Pearson, *The Global Spread of Arms*, 8.

[91] Ibid., 1.

technologies, production, and sales.[92] Furthermore, such desire for superiority and consequent technological advancements are also significant due to their advantages for self-sufficiency in terms of defense industrialization as a process.

Firstly, this chapter briefly describes the defense industrialization processes of the subject states, which have been designated according to Barry Buzan and Ole Wæver's framework of 1+4+x and the data generated by Stockholm International Peace Research Institute's (SIPRI) Arms Transfers database for the thirty-year period between 1990 and 2019. After the descriptive part, this chapter investigates the political characteristic of global defense industrialization.

3.1. Main Actors

With reference to Buzan and Wæver's framework, the group of main actors of defense industrialization in the thirty-year period since 1990 constitutes three subgroups: superpower(s), great powers, and regional powers. The first subject state to be investigated in the United States as the superpower of the anarchical international system, since those subgroups' order is also reflected in the SIPRI's list of 50 Major Arms Suppliers from 1990 to 2019. Secondly, European Union, Russia, China, and Japan as great powers will be investigated with regard to their defense industrialization processes. Lastly, six regional powers, India, South Korea, Turkey, Australia, Israel, and Canada, will be subject to this study. The subject states' defense industrialization processes will mainly focus on the thirty-years between 1990 and 2019 while also mentioning significant events before such period.

3.1.1. United States

Since World War II, the United States' defense industrialization process's consistency is mostly based on its competition with the Soviet Union. The United States has been extensively investing in its military technology capabilities due to the Cold War

[92] Krause, *Arms and the State*, 12-33.

period's competitive environment.[93] Consequently, cooperation in the form of arms transfers has been considered by many presidents of the U.S. as a way of boosting the U.S. national defense industry; however, it could not gain momentum to serve the U.S. defense industry's globalization process until Ronald Reagan's term. Until then, the most prominent policy regarding regulation of U.S. national defense industry, including exports to foreign states, was President Jimmy Carter's *International Security Assistance and Arms Export Control Act* of 1976. With such implication, the number and variety of possible future customers were limited, and Congress had a more active role in making export decisions,[94] although it never truly used that power.[95] Carter administration mainly sought to suggest less offensive weapons instead of introducing advanced weapons to conflicted areas fearing that it would trigger a new arms race.[96]

On the other hand, the Reagan administration sought to increase cooperation in order to achieve a competitive advantage over the Soviet threat in the 1980s; therefore, the government control was loosened compared to the previous term. According to Reagan's policy, arms transfers were an effective way of conducting foreign policy; therefore, the government of the U.S. concentrated on boosting arms exports in order to strengthen its allies' capabilities since the U.S. needed powerful allies to protect the liberal world order's capital-oriented interests together.[97] In the 1990s, Bill Clinton followed and further improved Reagan's policymaking in terms of defense industrialization.[98]

In the 1990s, the United States has enjoyed being the only advanced arms supplier of the world due to the dissolution of the Soviet Union and the Warsaw Pact. The arm

[93] A. Trevor Thrall and Caroline Dorminey, *Risky Business: The Role of Arms Sales in U.S. Foreign Policy* (Washington: Cato Institute, 2018), 6, https://www.jstor.org/stable/resrep23043.

[94] Andrew J. Pierre, *The Global Politics of Arms Sales* (New Jersey: Princeton University Press, 1982), 50-62.

[95] Thrall and Dorminey, *Risky Business*, 2.

[96] Pierre, *The Global Politics*, 54-5.

[97] Ibid., 62-8.

[98] William D. Hartung, "Nixon's Children: Bill Clinton and the Permanent Arms Bazaar," *World Policy Journal* 12, no. 2 (Summer 1995): 25-35, www.jstor.org/stable/40209410.

procurement demands from former Soviet states worked as leverage for the U.S. defense industry to further dominate global arms production and trade in the post-Cold War period. However, although the United States was mainly producing affordable defense items and selling those items to whoever wanted and whoever could afford the designated reasonable prices in the 1990s, the U.S.' export volume started to decrease in the twenty-first century due to the increased cost of exports. Such increase in the costs was caused by the U.S.' new focus on producing cutting-edge advanced weapons with the help of research and development (R&D) programs.[99]

The beginning of the new millennium marked a milestone for both the United States' defense industrialization and the rest of the world. After the September 11 attacks of 2001, the U.S. initiated a policy named "war on terror" in order to fight with terrorism, especially in the Middle East. Such policy boosted its arms transfers to the countries who joined the U.S.' war against terrorism. However, United States eventually started to support cooperation programs for its defense production to decrease unit costs since the increased volume of arms transfers increased the burden on the national economy. Such policy provided a well-established ground for the United States to continue to use arms sales as a foreign policy tool because, with each transfer, it was emphasized that the recipient also acquired the U.S. alliance, which would eventually serve the U.S. interests to balance the power in the world.[100] The United States has continued to invest in its military export activities, including Middle-Eastern states, in the first two decades of the twenty-first century to support regional stability and counterterrorism policy.[101]

3.1.2. European Union

European Union (E.U.) experienced a different path than the United States from the mid-1900s until globalization. The one-sided argument of post-World War I about the

[99] Jonathan Caverley and Ethan B. Kapstein, "Arms Away: How Washington Squandered Its Monopoly on Weapons Sales," *Foreign Affairs* 91, no. 5 (September/October 2012): 125-32. www.jstor.org/stable/41720866.

[100] Andrew J. Shapiro, "A New Era for U.S. Security Assistance," *Washington Quarterly* 35, no. 4 (Fall 2012): 23–35, http://dx.doi.org/10.1080/0163660X.2012.725021.

[101] Thrall and Dorminey, *Risky Business*, 9.

'wars being caused by arms dealers' was replaced by the argument of the post-World War II period stating that the war, in general, had a more complex and political characteristic. The roots of European defense industrialization's reemergence in the 1950s and improvements in the 1960s and 1970s were shaped around those ideas, even though neither were proven to be correct. Therefore, as Fabrizio Battistelli suggests, the process of European defense industrialization can be analyzed according to the socio-economical development of Europe. European states saw economic expansion as the most appropriate way of survival in a competitive international market; therefore, arms trade was largely supported in the European continent in the 1980s.[102]

In the 1990s, Europe has followed an export-oriented defense industry policy. On the path towards globalization, Western European states were heavily influenced by the arms trade competition between the United States and the Soviet Union, which led Western European states to rank as major arms suppliers right after the two main competitors.[103] It was exposed during the Gulf War that many European states were involved in the conflict with different volumes of arms transfers to the war's conflicting parties. However, such revelation worked as a driving force for the European states to consider imposing restrictions on the transfers of arms since it increased the European society's humanitarian concerns in engaging such transfers.[104] Later, the European Defence Agency (EDA) was established in 2004 to organize the regulations regarding the European Union's defense industry-related activities, such as establishing research & development projects and procurement decisions. However, although the European Union established EDA to serve a specific defense-industry-oriented purpose, Europeans still counted on North Atlantic Treaty Organization's (NATO) military capabilities when it came to preserving the E.U.'s security.[105]

---

[102] Fabrizio Battistelli, "Arms Production in Europe: The Sociology of the Arms Race," *Bulletin of Peace Proposals* 13, no. 4 (1982): 324, www.jstor.org/stable/44480967.

[103] American Academy of Arts & Sciences, "Limiting European Arms Exports," *Bulletin of the American Academy of Arts and Sciences* 45, no. 3 (December 1991): 9, doi:10.2307/3824336.

[104] Geoffrey Van Orden, *European Arms Export Controls* (Paris: European Union Institute for Security Studies, 1996), https://www.jstor.org/stable/resrep06980.9.

[105] Leslie S. Lebl, *European Union Defense Policy an American Perspective* (Washington: Cato Institute, 2004), 3, www.jstor.org/stable/resrep04890.

Although European Union ranks right after the United States in the SIPRI's major arms suppliers list, which covers the thirty-year time period between 1990 and 2019, E.U. member states with strong defense industries suffered uncompetitiveness of their joint market in the twenty-first century.[106] Even though European defense companies' best possible way to survive would have been vigorously boosting their exports, the initiatives taken for such direction were undermined by the E.U.'s defense policies. States that possess strong military production capabilities have been dealing with the threat of serious capability losses due to the division of labour principle of E.U.'s defense industry. European Defence Agency seeks to distribute defense industry projects to as many members as it can in order to preserve the union identity and improve as a whole. However, from the perspective of individual European states, such distribution method causes a decreased frequency of being selected as a producer for a project and, consequently, the producer state to lose some of its specific abilities. In addition to that, increasing concerns on environmental issues direct the administration of the E.U.'s focus away from security issues and the process of European defense industrialization. That unconscious damage to industrial specialization and eventually sabotaging own production capabilities can be attributed to many Western European states' underestimating military power and its role in the twenty-first century.

Western European states have developed a tendency to attach more importance to other issues such as environmental problems than to strengthen European military power. Such position is also reflected in European hesitation to contribute to NATO's yearly budget.[107] Under such circumstances, many European states do not root for the integration policy for building a common defense industry market with the features of specialization and division of labor, even though they support the idea of union-wide integration for self-securitization. However, albeit being minuscule, the initial steps towards collaboration and economies of scale were taken because of the lessons

[106] Erik Brattberg and Tomáš Valášek, *Drivers of E.U. Defense Cooperation* (Washington: Carnegie Endowment for International Peace, 2019), 6, https://www.jstor.org/stable/resrep20973.6

[107] Holger H. Mey, interview by Özde Aslı Akbay, August 15, 2019.

learned from the insecure continental climate created by the Crimean and Syria's migration crises since 2014.[108]

3.1.3. Russia

As a former military superpower's successor, Russia inherited Soviet Union's defense industry capabilities in terms of technological know-how. However, the Russian defense industry suffered from a lack of attention from the government side; therefore, defense companies had to expand overseas in order to recover after the Soviet Union collapsed. Russia could gather its strength to use the existing technological know-how as a Soviet legacy to produce Soviet-alike yet more capable defense items in the early 2000s thanks to exports to foreign countries, partnering through technology transfers with other states such as India and China, and their R&D efforts. In a global market where the major exporters were increasingly inclined to produce advanced and more expensive weapons, Russian defense items had a competitive advantage since they were easy to operate and affordable by third-world countries who, together, make up a large market.[109]

Russia’s progress in defense industry exports can primarily be attributed to the increased demands for defense items from Russia's allies such as India and China. Furthermore, the Russian government established Rosoboronexport in 2004 as a state-owned intermediary agency responsible for defense-related imports and exports to meet such increasing demand with the proper supply. After such establishment, Russia gradually extended cooperation with its allies, and consequently, it re-acquired the major player position in global defense industrialization. As a result, states that hesitated to procure armaments from Russia before renewed their perceptions about the Russian defense industry. Hence, Russia's confidence increased significantly, paving the way to improved expansion for defense industrialization.[110] In the

[108] Brattberg and Valášek, *Drivers of E.U. Defense*, 6.

[109] Sergey Denisentsev, *Russia in the Global Arms Market: Stagnation in a Changing Market Landscape* (Washington: Center for Strategic and International Studies, 2017), 8-15, https://www.jstor.org/stable/resrep23180.6.

[110] Ibid., 8-15.

globalization age, the Russian economy is heavily concerned about its national defense industry.[111]

Russian defense industry entered a stagnation period after experiencing a steady increase in its defense industry-related export volume from the beginning of the twenty-first century until the early 2010s. According to Sergey Denisentsev, the stagnation was caused mainly by the Russian defense industry's primary customers China and India's improved indigenous defense industrialization capabilities. Other significant factors also were influential in the stagnation. First, South Korea, Turkey, and Singapore emerged as new defense industrializers around Russia. Second, major Russian arms exporters[112] have been experiencing financial difficulties due to falling oil prices. Third, the western world started imposing sanctions on Russia, which especially damaged defense industry exports. However, the Russian defense industry remains a major player globally as of 2020 due to its increased domestic demand, which increases the overall production.[113]

3.1.4. China

As the new globalized world order's rising great economic power, China has gone through different phases in terms of defense industrialization. After the republic was founded, Mao Zedong strongly supported national defense industrialization to deal with possible future invasions. In his term of administration, Mao also allowed the export of defense equipment to a limited extent.[114] The primary purpose of exports conducted during the first years of Mao's administration was to support the People's Republic of China's (PRC) allies, such as Communist forces in Vietnam. However, China started to seek a more intensive export policy aiming the allies such as Albania,

[111] Richard A. Bitzinger, *Russian Arms Transfers and Asian Military Modernisation* (Singapore: S. Rajaratnam School of International Studies, 2015), 3-11, www.jstor.org/stable/resrep05879.

[112] such as Algeria, Azerbaijan, and Iraq

[113] Denisentsev, *Growth Drivers in the 2000s*, 16-23.

[114] Eric Hyer, "China's Arms Merchants: Profits in Command," *The China Quarterly*, no. 132 (December 1992): 1101-2, www.jstor.org/stable/654195.

North Vietnam, North Korea, and third world countries in the 1950s and 1960s.[115] During these years, China had managed to produce better copies of Soviet weapons through reverse engineering and mixing their own production methods with Western techniques.[116]

PRC's leader Deng Xiaoping's economy-oriented policies proved beneficial by the 1980s even though they initially harmed Chinese defense industrialization. During the initial phases of such policy implementation, the Chinese defense industry experienced serious financial cuts in military spending due to Xiaoping's refusal to invest in any industry unless it promises a certain level of profit. Under such circumstances, Chinese companies had to enter the global market in order to survive. The motive for *political* influence did not play a role in making such decisions; instead, the Chinese defense industry was affected mainly by *monetary* motivations. Chinese defense industry primarily aimed at making profits rather than expanding political influence.[117]

China continued to implement the national policy to develop a more stable and sufficient defense industry in the early 1990s while mainly buying defense items from the Soviet Union at the same time. By the early 2000s, China has nearly secured its position as a major arms supplier. It still pursues to improve the position by possessing a large range of defense products ranging from affordable and easy-to-operate weapons to more powerful advanced weapon systems. As of 2020, China tries to position itself as an alternative supplier to Russia while being a strong ally of it,[118] and seeks to be a strong competitor to Western suppliers. China's primary motivation behind pursuing arms production and transfer remains as the possible economic gains, it also gradually directs its attention to more strategic overseas sales to expand its influence through this tool of foreign policy.[119]

---

[115] Michael Raska and Richard A. Bitzinger, "Strategic Contours of China's Arms Transfers," *Strategic Studies Quarterly* 14, no. 1 (Spring 2020): 99-100, https://www.jstor.org/stable/10.2307/26891885.

[116] Hyer, "China's Arms Merchants," 1106.

[117] Ibid., 1102-6.

[118] Raska and Bitzinger, "Strategic Contours of China's Arms," 91.

[119] Ibid., 110-2.

3.1.5. Japan

As the last great power designated by Buzan and Wæver's framework, Japan has not been as significant as other great powers in terms of defense industrialization in the period covering thirty years between 1990 and 2019. Even though Japan is a capable economic and technological giant, it could not produce defense equipment for a considerable period due to the devastation of its defense industry by the U.S. bombing during World War II. Therefore, there was not a sufficient Japanese defense industry export volume to be considered as a major supplier. Furthermore, under the scope of ban initiated first in 1967 and then extended to reach its final form in 1976, Japan prohibited exports of defense items due to its claim about being a peace-loving nation. The early version of the ban named "Three Principles of Arms Export" was primarily established to prohibit arms exports to communist states, states that are subject to arms embargo under United Nations resolutions, and states that are involved in armed conflicts at the time. However, the extended version banned arms exports to *all* states.[120]

The Japanese defense industry has been isolated from the international system to not participate in international co-development projects since the ban regarding arms exports was established. Defense companies reduced their reliance on arms exports and still survived thanks to their high-tech know-how and large operation areas in addition to the defense sector. Lastly, the Japanese defense industry had to rely heavily on indigenous production for military self-sufficiency in a world where there is no foreign assistance other than the United States' strategic partnership in key technologies yet to a limited extent.[121] Nevertheless, Japan seeks a more integrative policy in terms of defense-related cooperation since 2014. The increased cost of acquiring weapons from foreign partners and Japanese realization of the power of export as a way of cooperation in the modern global era led Japan's government to take

[120] Sugio Takahashi, "Transformation of Japan's Defence Industry? Assessing the Impact of the Revolution in Military Affairs," *Security Challenges* 4, no. 4 (Summer 2008): 101-5. www.jstor.org/stable/26459811.

[121] Ibid., 101-5.

the initial steps towards building alliances with the United States and other global players via defense industry projects.[122]

3.1.6. Regional Powers as Arm Suppliers

On the regional power part of the 1+4+x model, India, South Korea, Turkey, Australia, Israel, and Canada rank in the major arms suppliers, major arms recipients, and major U.S. arms recipients lists at the same time. Defense industrialization characteristics of those six regional actors are significant on the basis of determining the characteristics of global defense industrialization as a whole; because each step those regional powers take to increase their production capabilities contributes to the general arming of the world through manufacturing and export of defense items.[123]

India

India, which is designated as a regional power by Buzan and Wæver's Regional Security Complex Theory, has been investing in its defense industrialization process in terms of domestic production, especially since the 1960s. Its former major arms suppliers, the United States and the United Kingdom, have stopped providing weapons to India after the Sino-Indian War of 1962, leaving no other option to India other than building its self-sufficient and operative defense industry. While working on creating its indigenous defense industry, India received significant assistance from the Soviet Union. That new Russian Indian alliance, which also happened to be prominent during the thirty years since 1990[124] took the form of licensed defense industry production by the 2000s.[125] Although India and Russia's joint efforts for further cooperation projects were promising, they have not lead to an increase in India's exports. Also, India has been heavily importing to replace its old Soviet-made defense items since the early

[122] Yuki Tatsumi, *US-Japan-Australia Security Cooperation: Prospects and Challenges* (Washington: Stimson Center, 2015), 80-7, www.jstor.org/stable/resrep11008.11

[123] Jan Øberg, "Third World Armament: Domestic Arms Production In Israel, South Africa, Brazil, Argentina and India 1950 – 75," *Instant Research on Peace and Violence* 5, no. 4 (1975): 222-39. www.jstor.org/stable/40724787.

[124] Ibid., 233-7; "Trend Indicator Values (TIV) of Arms Exports to India 1990-2019," Stockholm International Peace Research Institute (SIPRI), accessed April 22, 2020, http://armstrade.sipri.org/armstrade/page/values.php.

[125] Bitzinger, *Russian Arms Transfers*, 7-8.

2000s; however, its primary contractor Russia maintained its partner position for almost sixty years.[126]

India's significance for global defense industrialization is based on its ranking as the first among major arms recipients between the years 1990 and 2019 while still being an above-average U.S. arms recipient and a global arms supplier in the same period. India, as a keen Russian ally in terms of defense industry relations, reserves more than half of its overall defense exports for Asian states (see Appendix: SIPRI Data Table-4), therefore, it can be argued that India is a significant Asian peripheral regional power in terms of global defense industrialization, according to Buzan and Wæver's RSCT and also Gilpin's regionalism perspective along with his theory of NEG.

South Korea

Another major regional arms supplier, South Korea, owes its defense industrialization progress to its alliance with the United States and the threat posed by North Korea. South Korea has been investing heavily in its military capabilities since the 1970s due to North Korea's military position and its continuous threat against South Korea's national security. In addition to that, although the South Korea-United States alliance has been mainly formed by the U.S. national security assistance since the Korean War, in the process of time, the South Korean government realized that it could not entirely rely on the United States for the country's national security. Therefore, the alliance of the two states has been growing on the basis of improving the defensive capabilities of South Korea and the economic gains that both parties have been enjoying through reduced unit costs and increased profit acquired from exports. South Korean government also emphasizes the importance of possessing a self-sufficient indigenous arms industry due to the aforementioned uncertainty about the U.S. security assurance and the fact that dependency on foreign arm supply would cause a significant devastation in the case of a possible North Korean aggression. However, despite all the governmental efforts to go indigenous, the South Koran defense industry is still mostly dependent on its Western allies, U.S. being the major partner. Therefore, one

[126] Terrence R. Guay, *Emerging Powers, and Future Threats: Implications for the U.S. and Global Defense Industry* (Pennsylvania: Strategic Studies Institute, U.S. Army War College, 2017), 29-31, https://www.jstor.org/stable/resrep11372.

could claim that the defense industrialization trend of South Korea is getting similar to Japan's rather than its regional competitor China's.[127] Also, according to the theories of Buzan, Wæver, and Gilpin, South Korea can be counted as a significant Asian peripheral regional power due to its defense industry exports' regional volume (see Appendix: SIPRI Data Table-5).

Turkey

Turkey's defense industrialization process demonstrates a similar structure to South Korea's because of similar defense industry alliances and cooperation activities with the United States. After Turkey became a member of NATO in 1952, Turkish-American relations improved progressively, and Turkey started to receive defense items from the U.S.; however, this alliance did not last for an extended period. U.S. imposed a strict arms embargo on Turkey due to the Turkish intervention in Cyprus in 1974. As a result, the Turkish state established its indigenous defense industry.[128] The Turkish defense industry has been advancing ever since, thanks to the increasing investments of the government, joint international programs for modernization of weapon systems, cooperation, and co-development projects with foreign states such as South Korea, Saudi Arabia, Serbia, Japan, and Brazil on different negotiation and development phases.[129]

Although its desire for self-sufficiency drove the primary purpose of building a national defense industry, Turkey also developed an interest in export due to its defense industry's progress in producing defense items. Still being dependent on foreign suppliers in the twenty-first century, Turkey aims to be a major global player by increasing its export to serve economic purposes; at the same time, it aims to be a

[127] Scott A. Snyder, *South Korea at the Crossroads: Autonomy and Alliance in an Era of Rival Powers* (New York: Columbia University Press, 2018), 192-211, https://www.jstor.org/stable/10.7312/snyd18548.12; Eamon Surry, *Transparency in the Arms Industry* (Stockholm: Stockholm International Peace Research Institute, 2006), 25-34, www.jstor.org/stable/resrep19212.7.

[128] Nathalie Tocci, *Turkeys European Future: Behind the Scenes of Americas Influence on EU-Turkey Relations* (New York: NYU Press, 2011), 106-7, www.jstor.org/stable/j.ctt9qg9c4.11.

[129] Hüseyin Bağcı and Çağlar Kurç, "Turkey's strategic choice: buy or make weapons?" *Defence Studies* 17, no.1 (2017): 38-62, http://dx.doi.org/10.1080/14702436.2016.1262742.

self-sufficient producer to serve prestige-related objectives.[130] Even though Turkey has not reached the fully self-sufficient status as of the end of the first twenty years of new millennia, it can be considered as a regional periphery state due to its export volume in defense equipment to the states in the Middle East and Africa RSCs. Also, Turkey is one of the few insulator states of the world in terms of global defense industrialization according to Buzan and Wæver's RSCT, Gilpin's theory of NEG, and his perception of regionalism (see Appendix: SIPRI Data Table-6).

Australia

Another regional power, Australia also has been enjoying its defense industry alliance with the United States in the thirty-year period since 1990. Similarly, United States has been enjoying its supreme supplier position in Australia's defense procurements because the volume of U.S. sales in Australia's total arms procurement since 1990 is five times higher than its closest competitor Spain's[131] (see Appendix: SIPRI Data Table-7).

Australian defense industrialization has not evolved due to a certain triggering point in its history like Turkey, and a furious enemy did not threaten it as in the case of South Korea versus North Korea. The only 'threat' for Australia in the region has been China since the beginning of the twenty-first century; however, China has been only an economic rival that does not pose a security threat for Australians. Therefore, Australian defense industrialization has not faced severe obstacles on a regional scale.

The most remarkable feature of Australia's defense industry is that national companies seek to cooperate with foreign producers such as United States, Japan, India, and China to boost indigenous production.[132] Australia's significance as a major supplier is based on its dominant regional peripheral position in the Asian supercomplex with high

[130] Bağcı and Kurç, "Turkey's strategic choice."

[131] "Trend Indicator Values (TIV) of Arms Exports to Australia 1990-2019," Stockholm International Peace Research Institute (SIPRI), accessed April 22, 2020, http://armstrade.sipri.org/armstrade/page/values.php.

[132]Evan S. Medeiros, "The New Security Drama In East Asia: The Responses of U.S. Allies and Security Partners to China's Rise," *Naval War College Review* 62, no. 4 (Autumn 2009): 37-52, www.jstor.org/stable/26397053; Tatsumi, *US-Japan-Australia Security*, 80-1.

volumes of sales to Asian states such as Pakistan, Indonesia, New Zealand, and India (see Appendix: SIPRI Data Table-7).

Israel

Among fifty major arms suppliers between the years 1990 and 2019, Israel,[133] has also been the only state in the Middle East region that spent the most in terms of defense investments, especially from 1950 to 1975. Although it mainly acquired its weapons from France before, Israel started to buy its defense equipment from the United States due to France's arms embargo in 1967; hence, the U.S.-Israeli alliance gradually improved.[134] Still, U.S. remains as the major supplier of Israel who makes the greatest profit from conducting such trade alliance even though Israel cooperates with other Western powers in co-development and research & development projects.[135] Israel's major arm recipients are India, U.S., and Turkey (see Appendix: SIPRI Data Table-8).

The success of Israel's defense industrialization depends on its strong structure both in terms of human and technology capabilities in addition to its export-driven and profit-oriented policy. The main focus of Israel's defense industrialization is not based on its desire for prestige; on the contrary, it seeks to be economically and materially powerful through its national defense industry.[136]

Canada

Although it is in the list of major arms suppliers of last thirty years with a high ranking, Canada[137] has been a keen supporter of international disarmament since the 1950s. Canada maintained its pro-disarmament position in its foreign policy even though

[133] "TIV of Arms Exports: 50 Major Arms Suppliers, 1990-2019," SIPRI.

[134] Øberg. "Third World Armament," 228-9.

[135] John Hilary et al., *Corporate Complicity in Israel's Occupation: Evidence from the London Session of the Russel Tribunal on Palestine* (London: Pluto Press, 2011),134, https://www.jstor.org/stable/j.ctt183p4xd.11.

[136] Øberg, "Third World Armament," 228-9.

[137] "TIV of Arms Exports: 50 Major Arms Suppliers, 1990-2019," SIPRI.

different leaders adopted various Canadian defense industrialization policies.[138] Canadian defense industrialization has been an export-driven, profit-oriented process, and Canada owes its position in the major suppliers' list to its arms transfers' focus on the advanced *dual-use*[139] commercial products, which are easier to be promoted in the market compared to pure military products.[140] Finally, one can argue that Canada's peripheral status in the RSCs in Americas is based on its import and export volumes, since the superpower United States is the primary supplier and recipient of Canadian defense industry products (see Appendix: SIPRI Data Table-9).

3.2. Political Dimension of Defense Industrialization

Pierre's argument, which suggests that 'arm sales need to be considered in political terms' is likely to be reached through one simple inductive method: if the accumulation of weapons leads to war and the reason of war is the existence and accumulation of weapons since they are widely used at wars; then the actors possessing vast amounts of weapons through production should continuously be at war. However, that is not the case, because as it might be expected, the accumulation of weapons alone does not lead to war. The underlying reason for war is either political, economic, territorial, or ideological competition. Pierre explains that phenomenon by referring to Prussian general Carl von Clausewitz and his understanding of the concept of *war* as a continuation of politics.[141]

Defense industrialization both in terms of arms production and transfer of "arms or related goods and services by sale, loan or gift"[142] from one party to another is crucial for governments since it creates room for authorities to realize their claims related to power, economy, and prestige. Government actions regarding defense investments are

[138]Una Becker-Jakob et al., "Good International Citizens: Canada, Germany and Sweden," in *Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice*, ed. Harald Müller and Carmen Wunderlich (Athens: University of Georgia Press, 2013), 209-13, www.jstor.org/stable/j.ctt46n7ks.12.

[139] Dual-use technology of weapons means a weapon's ability to be used both for military and commercial purposes.

[140] Andrew P. Hunter, Kristina Obecny and Gregory Sanders, *U.S.-Canadian Defense Industrial Cooperation* (Washington: Center for Strategic and International Studies, 2017), 7-8, https://www.jstor.org/stable/resrep23170.6.

[141] Pierre, *The Global Politics,* 3-5.

[142] Pearson, *The Global Spread of Arms*, 7.

shaped according to the state's concerns over power, wealth, and war.[143] Although these concepts are referred differently by other authors such as Stohl and Grillot as 'power, security and economy' or Pearson as 'military ambition, threat perception and economic wealth', they all address the same explanation.[144]

There has always been a particular development in the defense industry throughout history as states engaged in wars or any other kind of conflictual affairs with other actors in the international system. Almost all defense industrialization processes of regional powers referred to in this study were formed as a response to a crisis either in the form of an arms embargo, the existence of a threat to the national security, or supply cuts imposed by the producers. Consequently, increases in production capabilities and production volumes have directly responded to the changing events of the world order. As states improved their technological know-how and production capabilities, the primary reason for production surplus of arms has been considered to serve domestic consumption.[145] Also, either the successful innovations or lack of a domestic market caused such a production surplus.[146] Those ‘extra’ items became commodities that were ready to be sold to other actors, such as states. According to Keith Krause, the main reason why states engaged in large-scale production in the first place was the security dilemma that states have been experiencing in the anarchical world order.[147] Self-protection is a prerequisite for states to survive in such a setting, and arms sales are one way of claiming one's diplomatic territory in the international arena while strengthening its position. Defense industrialization, especially the transfer of weapons, is significant in terms of foreign policy since it allows states to "ensure sovereignty, express self-determination and enhance state protection."[148]

[143] Krause, *Arms and the State*, 34.

[144] Rachel Stohl and Suzette Grillot, *The International Arms Trade* (Oxford: Wiley, 2009), 18.

[145] Ibid., 2-11.

[146] Ibid., 18.

[147] Krause, *Arms and the State,* 15.

[148] Pierre, *The Global Politics*, 3-8; John Stanley and Maurice Pearton, *The International Trade in Arms* (New York: Praeger Publishers, 1972), 14; Stohl and Grillot, *The International Arms Trade*, 17.

Its defense industry influences the military and political **power** of a state in an anarchic system where states experience different levels of security dilemmas and have to provide their own survival. Investing in military equipment both in terms of production and adopting policies to increase imports and exports grants the possessor state a national and global position that is by all means strong. Simply, a state is as strong as the quality and quantity of weapons in its inventory, because according to Pearson, a state's power is very much related to its operative military technology.[149] In addition to that, exporting the surplus domestic production allows states to gain an economic superiority over other states that do not engage in such activity. The profit gained through improved trade allows states to allocate greater financial resources to research and development activities; therefore, producer companies develop better technological know-how. As a result of continuous trade and exchange of knowledge, new production centers begin to emerge. Industry leaders of those centers shape and guide future innovations and such a progressive process can eventually lead to significant changes in regional balances of power.[150]

Furthermore, indigenous production reduces a state's dependency on foreign suppliers. It also gives the producer the confidence not to be scared of possible cut-offs or interventions from the suppliers that the producer state would have been relied on in an import-oriented scenario. In each case, the primary motivation behind the desire to possess defense industry items is security and desire for power.[151]

The concept of defense industrialization has to be considered as a politically oriented process since technological superiority, and the financial return gained by arms exports give states prestige in the international realm[152] which can be transformed into diplomatic power. To a more considerable extent, defense industrialization -especially the transfer of arms- is significant for achieving, maintaining, or disrupting the balance

[149] Pearson, *The Global Spread of Arms*, 9.

[150] Pierre, *The Global Politics,* 4.

[151] Krause, *Arms and the State,* 15-6.

[152] Stohl and Grillot, *The International Arms Trade*, 17.

of power in a specific region. Arm producer states tend to use arm transfers as a tool to strengthen their allies in a region to affect the regional balance of power.[153]

Samuel Huntington's *primacy principle* can explain political, economic, and military power dimensions of defense industrialization. When applied to the concept of defense industrialization, the theory would suggest that a state also should have primacy on the field to claim its dominance in the defense industry. According to Huntington's idea, primacy is a relative issue, while power has an absolute characteristic. One state influencing others to go towards a certain direction is an indication of *power*; however, one state influencing others more than any other actor to go towards a certain direction is an indication of primacy. When applied to global defense industrialization, primacy is a more cooperative and peaceful way of influence since it enables states to reach their goals without resorting to war. According to Huntington, states such as the superpower United States, which already has a global primacy over other actors of the international system, tend to preserve and maintain their primacy through peaceful methods in order to avoid resorting to war.[154] Cooperation in regional defense industrialization can be accepted as an example of the maintenance of such peaceful primacy, which can be explained by Gilpin's regionalist theory of NEG and Buzan and Wæver's RSCT. States which constitute the core of defense industry production centers and their cooperative relations with the peripheral defense industry producers is a supporting fact for Huntington's argument.

The second issue that needs to be considered when producing and transferring defense industry products is creating and possessing **wealth**. As discussed, the primary boosting factor for defense industrialization is related to the security concerns and subsequently the desire for power of a state, while economic concerns of a state also play the role of driving force. In its simplest form, production and transfer of defense industry items allow states to make profits, which cumulatively leads to the creation of wealth. Furthermore, states can provide jobs for the domestic job market, which

[153] Pierre, *The Global Politics,* 20.

[154] Samuel P. Huntington, "Why International Primacy Matters," *International Security* 17, no. 4 (Spring 1993): 68-83. http://www.jstor.com/stable/2539022.

satisfy individual workers and the industry at the same time as long as states possess facilities to manufacture weapons and other defense-related products.[155] In the long run, even research and development activities could gain greater momentum, and that could help states to possess a more advanced level of know-how and prestige over other producers since high-skilled workers have stayed home and did not leave for better job opportunities because the job at home was good enough. It will be perceived as a more prestigious move if the state gains such know-how through its indigenous production without depending on any foreign resource.[156]

In terms of the wealth creation, another view argues that Third World countries take advantage of defense industrialization since it allows those states to invest in their infrastructure and education. Pierre explains such view by arguing that when a Third World country in Latin America, Africa, or Asia buys weapons, it builds better roads and better airfields for logistical purposes, and it starts to invest in the education of the users of those weapons since modern world armaments require a certain level of training.[157] In other words, defense industrialization has a positive triggering effect on Third World countries' economies, leading to total development globally.

Political characteristic of the motivation for defense industrialization's economic dimension suggests that possession of powerful weapons has been a foreign policy tool[158] which also can be explained by the power and the prestige it brings to the state. Possessing defense industry items is the evidence of a certain level of monetary resources great enough to procure from the skilled producers or to build indigenously.[159] Furthermore, defense industrialization in terms of arms transfers also has a leverage function both for supplier and recipient states. The United States is the greatest practitioner of the leverage function, and as will be discussed in the next

[155] Pierre, *The Global Politics,* 24-7.

[156] Ibid., 4; Richard A. Bitzinger, *New Ways of Thinking About the Global Arms Industry: Dealing with 'Limited Autarky'* (Canberra: Australian Strategic Policy Institute, 2015), 2-10, https://www.jstor.org/stable/resrep04093.

[157] Pierre, *The Global Politics,* 37.

[158] Krause, *Arms and the State*, 27.

[159] Robert Looney, *Third-World Military Expenditure and Arms Production* (London: Macmillan Press, 1988), passim; Krause, *Arms, and the State*, 13.

chapters, there are many occurrences, especially in the modern global defense industrialization era, which are appropriate examples for such concept. According to Pierre, supplier states can be either directly or reversely affected by applying the leverage function. Simply put, supplier states can use arm transfers either as retaliation such as arms embargoes or as rewards such as financial incentives to materialize their politically and economically motivated policies.[160]

The last state concern of defense industrialization in this chapter is the pursuit of victory in **war**. The 'war concern' is more of a military dimension of the story: states would like to be superior to others in terms of their material capabilities at times of high tension, because high tensions can turn into wars. Possessing a defense industry through domestic arms production or arms transfers is one way to achieve such superiority.[161] It has been essential for states to build alliances in times of both hot and cold wars, and defense industrialization provides the opportunity for creating alliances, mainly through arms transfers. According to Krause, states can cooperate through alliance-building or arming the enemy of the enemy to win in a conflict.[162] Such cases are also applicable to the Third World countries that are under the influence of powerful ones. As Pierre (1982) argued, the competition between East and West is highly affected by the arms sale activities taking place in the international arena.[163]

Arms producer states are inclined to transfer their products primarily to their friends and allies. Large amounts of transfers within NATO or European collaborative production in high technology defense industry company Airbus set good examples for such statement. Such inclination of arms producer states can be interpreted as a globally shared desire to have a militarily strong ally by the side; or establish a military base inside the recipient state's borders, which could be significantly useful at times of war. However, although arms transfers can be beneficial at times of high tensions, high

[160] Pierre, *The Global Politics,* 14-27.

[161] A.G. Kenwood and A.L. Lougheed, *Technological Diffusion and Industrialization before 1914* (New York: St Martin's Press, 1982), 5, quoted in Keith Krause, "Arms and the State," 25.

[162] Krause, *Arms and the State*, 28.

[163] Pierre, *The Global Politics,* 4.

volumes of imports could eventually damage the indigenous production and the readiness of states' own inventories. Increased dependence on arms transfers would create inertia on states due to decreased domestic production. Consequently, states gradually lose their responsiveness to procurement demands from foreign states, causing delays in procurement orders. In addition to that, there is always the possibility of defense industrialization cooperations not working out as planned due to the possibility of cheating or due to relative gains problem.[164]

Finally, putting aside the political, economic, and military benefits which defense industrialization brings, possession of certain weapons most of the time helps states to realize their prestige-related desires. One good example of the realization of prestige-related claims is the May 1 parades organized every year in the USSR. The army displayed its vast weapons, which were not in use at wars but instead built only for prestigious displays.[165] Therefore, it would be realistic to suggest that it is essential to possess a domestic arms industry for security before anything else. As Krause argues, an independent arms industry is a key for independence on the world stage.[166]

All three motivations discussed in this chapter support the eclectic approach of this study to analyze global defense industrialization and its political dimension. On the one hand, the motivations of power and war apply to the Realist and Neorealist understandings, since both derive from the anarchical characteristics of the world order, focuses on ensuring survival, and, most importantly, place the state the center. On the other hand, the motivation of wealth creation does not only apply to the Realist understanding but also supports the applicability of Liberal understanding because of two reasons. First, wealth creation from *selling* weapons to other states requires at least two parties -one on the supplying end and one on the receiving end-, which means the simplest form of cooperation. Second, the wealth is often not created solely by states; it requires non-state involvement such as MNCs to increase the gains. After adding the regionalist characteristics of the twenty-first century's securitization and defense

[164] Ibid., 19-23; Grieco, "Anarchy and the Limits of Cooperation," 505.

[165] Pearson, *The Global Spread of Arms*, 9.

[166] Krause, *Arms and the State*, 28.

industrialization patterns to the equation, it can be argued that the eclectic approach used by this study for the analysis of the global defense industrialization process is the most suitable method of research.

CHAPTER 4

HISTORICAL CONTEXT

This chapter of the study examines the historical roots of global defense industrialization to better understand the states' cooperative and conflictual behaviors throughout the years. For that purpose, this chapter aims to specify the global defense industrialization's technological, economic, and political characteristics from a relevant reference point in history until the end of the twenty-first century's second decade. All five sub-sections of the chapter cover a specific period of history. The start and end dates of those periods are designated according to the significant events during those periods.

4.1. Early Defense Industrialization

One might choose the catapult's invention around 399 BC in Syracuse as a starting point for analyzing the evolution of arms transfers throughout the time. This invention was the beginning of global-scale technological advancements to be carried out by different actors in the process of global defense industrialization. Technological advancements in the process of global defense industrialization have been carried out parallel to the requirements of warfare and according to the demands of each actor involved in armed conflicts, especially in the pre-modern times. It was only after the military-technological developments have started been carried out on a more 'global' basis that the process of global defense industrialization both in terms of arms production and transfers has been transformed into a political and economic tool.

Keith Krause notes that the first-ever-recorded arm transfers have taken place in the Peloponnesian War (431-404 BC). It was when arms transfers started being considered necessary tools for states and rulers to achieve their "political, military and economic goals."[167] For instance, Spartans have exchanged triremes in order to fetch Athenian ships in the Peloponnesian War.[168] As in the Peloponnesian War case, men, weapons, supplies, and ships have also been transferred between states, and inter-state arm transfers have never exclusively focused on the transfer of *arms*.[169][170]

Although states started to transfer arms in ancient times, it has been a *marginal* activity due to the limited volume of transfers until AD 1000.[171] According to Krause, the marginality of arms transfers was caused by the non-existent surplus production and circumstantial sales, which were primarily controlled by the rulers who interpreted arming the opponent through arms transfers as creating a severe threat to themselves. Therefore, arms production has primarily aimed to serve national protection and security rather than create a market for international trade. However, the defense market has started to witness significant changes from the fourteenth century onwards after the cannon was invented and later with the advancements in cannon, gunpowder, and firearms. The modern state was seen as the leading provider of arms instead of individuals from cannon's invention until the Military Revolution.[172] Regarding the technological developments that provided the foundation of the process of global defense industrialization, Martin van Creveld suggests that the period between 2000 B.C. and AD 1500 can be named the 'Age of Tools' because the energy that was used in weapons in that period depended on biologic resources such as animal or human

[167] Krause, *Arms and the State,* 1-34.

[168] Thucydides, *History of the Peloponnesian War,* trans. Rex Warner (Harmondsworth: Penguin Books, 1972), 609.

[169] Krause, *Arms and the State*, 34.

[170] Defense industrialization as a process that involves both production and trade of armaments possesses innovation at its heart since innovation makes progress possible. Keith Krause (1992) argues that the first significant technological development was the catapult's invention in 399 BC, which enhanced the improvement of production techniques, workers' skills, and society's livelihood through the money and prestige it brought. On the other hand, as Thucydides (trans. Warner, 1972) argued, the history of arms transfers begins at an earlier stage in history (431-404 BC) in Peloponnesian War. Therefore, this study accepts the years from 431 BC to 399 BC as the earliest points of history when the world started to engage in defense industrialization activities.

[171] Krause, *Arms and the State*, 35.

[172] Krause, *Arms and the State,* 22-36.

muscle. Such resources were converted into power through the tools used by individuals or small-sized groups.[173]

Although there were weapons in military use worldwide before the fourteenth century, they have never been homogeneously used by societies due to the balance between major powers prior to the 1500s, which kept one specific society gaining the upper hand in military technology. However, the usage of fire in weapons increased as people started to derive energy to be used in weapons from chemical resources instead of biological resources by the 1500s. Consequently, the Age of Machines has begun as most of the states in the European continent started using gunpowder and firearms homogenously. In this new age, militaries and manufacturers preferred to employ skilled and trained personnel who could properly use more advanced machines rather than *physically* strong personnel since machines gained the upper hand in the production of defense equipment.[174] The Age of Machines also covered a subsequent period from 1500 to 1700, which Geoffrey Parker named the 'Military Revolution' because there has been a growing interest in using more sophisticated weapons in battles. The Military Revolution first enhanced the development of modern war-making instruments such as firearms, gunpowder, and cannon, which later led to the surplus production and transfer of such products.[175] Military Revolution, along with the cannon's invention, marked a significant turning point for global defense industrialization due to their incredible impact on warfare. As a result of military technology advancements, states developed new war-fighting strategies and fortifications and established large standing armies.[176]

Trade of military equipment was a later boomer compared to the production of the same. Social and technological changes, especially between 1450 and 1650, have had a triggering effect on arms transfers. In this period, specific production centers such as

[173] Martin van Creveld, *Technology and War: From 2000 B.C. to the Present* (New York: The Free Press, 1991), 7-73.

[174] Creveld, *Technology and War*, 7-73.

[175] Stohl and Grillot, *The International Arms Trade*, 13.

[176] Geoffrey Parker, *The Military Revolution: Military Innovation and the Rise of the West 1500-1800* (Cambridge: Cambridge University Press, 1996), 1-2.

Italy as the most prominent one and others such as Low Countries, Britain, and Sweden could maintain surplus production. The process of defense industrialization has been more globalized in this period due to the commercialization of warfare, and inter-state arms trade increased by the surplus production. Any ruler who possessed sufficient *financial* resources could buy arms. Those who could afford to get involved in a war made warfare a relatively commercial issue rather than a purely military one.[177]

In the fifteenth century, although the invention and production of more advanced and sophisticated weapons gained speed, such new military equipment was not readily accepted by the societies because of two reasons. First, the new weaponry was not comfortable to use on horseback. Second, advanced and easy-to-use technology blurred the line between commoners and noblemen since it enabled them to kill anyone at any time.[178] However, Europe was still a hotspot in terms of the evolution of defense industrialization in this period. While Italy was the most significant center of the process of global defense industrialization due to its wide trading networks;[179] England, France, Germany, and the Low Countries were also present in the race.[180] Additionally, other states such as Ottoman Empire, India, Japan, and China also demonstrated different levels of progress in terms of arms production and trade in the same period. However, although those non-European arm possessors were historically significant in terms of early defense industrialization, they were not considered primary players. Along with a small degree of indigenous production, those states mainly depended on foreign suppliers. There was also a significant difference, which created two separate sub-groups in non-European arm possessors: while Ottomans and Indians failed to keep up with the European technology and techniques, the East Asians were successful, which eventually gave Asians a relative superiority by the time.[181]

[177] Krause, *Arms and the State*, 36-40

[178] Creveld, *Technology and War*, 82.

[179] Krause, *Arms and the State*, 37.

[180] Stohl and Grillot, *The International Arms Trade*, 11-12.

[181] Krause, *Arms and the State,* 49-51.

Although the dominant trend in defense industrialization still was the dependency on imports of military equipment, different states other than major producers started to take small steps to become influential producers by the sixteenth century. States such as Portugal, Scotland, and Hungary were peripheral producers of the early period with limited production and large trade networks. On the other hand, states such as Ottoman Empire, India, China, and Japan were also present on the global defense industrialization stage through imitating European armaments.[182] After the European Renaissance of the fifteenth and sixteenth centuries, the military balance had shifted towards the offensive side, which later created a stable balance that did not favor offensive or defensive sides but trapped itself in perfect equilibrium. For instance, in the early modern period, a castle could be possessed through total wars as in the Spanish Fury and the Sack of Antwerp in 1576; therefore, blockades' role against indestructible protection walls was counted as significant. As a result of the developments in the blockade techniques, the rules of war have started to change, and it led rulers to introduce their armies to more sophisticated firearms instead of making them engage in hand-to-hand combats for their future defensive and offensive moves. Although the firearms were not highly effective in the first place, they still spread at an extremely high-speed considering the evolution of the industry until that date. As Geoffrey Parker notes, the reason for such extensive spread was that the firearms did not require a long training to use, compared to swords and blades.[183]

Adaptation of firearms by the European armies is followed by an immediate need to train the army for acquiring the necessary skills to load and re-load the guns in an orderly manner during battles. However, this was not an easy task. In order to increase the frequency of shots fired, the soldiers formed multiple lines one after the other; therefore, when the first line finished shooting, the next line could take the duty. This technique is known as *volley*, and it was an absolute game-changer since that kind of alignment required strict discipline and training. Although the volley technique was a Dutch invention, it was well developed by the Swedish. In the early seventeenth

[182] Stohl and Grillot, *The International Arms Trade*, 13.

[183] Parker, *The Military Revolution,* 17.

century, the load and re-load speed of Swedish soldiers was significantly above the European average. The Swedish army used the volley technique for offensive purposes. It was not long after the other European states accepted Swedish war methods as guides for their military purposes and started to acquire Swedish armaments.[184] That was a significant turning point for Sweden to reduce its dependency on arms imports from England and become an arms producer and eventually an arms exporter. As Krause argues, the Swedish case is significant for analyzing the importance of 'political will and the pursuit of victory in war' for a thriving arms industry.[185]

Whether it was the battles that have been used for the marketing of the armaments or the neutrality of one state, which allowed customers to come and buy the armaments with their free will, being an arms producer has never guaranteed to be an arms exporter. A well-demonstrated example of such a case is Suhl, Germany, in the seventeenth century. Although Suhl was the "*only large gun manufacturer in central Europe*," it could not become a major exporter. As Stohl and Grillot argue, this was due to the "political differences and destruction of Thirty Years' War"[186] along with the difficulties that Germany has been experiencing to access the arms market. Still, the seventeenth century was essential to analyze the development of defense industrialization. From that period onwards, states started to take arm production and transfers more seriously due to the increased realization of the strong connection between the indigenous defense industry and national independence.[187] States were aware that possessing an indigenous defense industry could support their national independence and power status; hence, they inherited the technological know-how of skilled workers who migrated from other states to support their national defense industrialization process. However, while some states like Germany, Italy, Russia, and England enjoyed occasional success in acquiring such independence, some other states

[184] Parker, *The Military Revolution,* 18-24.

[185] Krause, *Arms and the State*, 42.

[186] Stohl and Grillot, *The International Arms Trade*, 12.

[187] Krause, *Arms and the State*, 44.

like France and Spain could never make a significant change in their status to become major indigenous arm exporters in this period.[188]

As Krause points out, in the early modern defense industrialization period, governments started to be actively involved in the production and trade of defense items. States such as France and Spain sought to protect their own industry and market by restricting imports, while Milan, Liege, and England maintained their industrialization leader status by investing in technology and trade and putting the political part of the story aside. Although the earlier time state involvements in defense industrialization decisions were primitive actions compared to the involvements in later periods, it still proved that the political significance of defense industrialization has always been extremely high.[189]

The world had not witnessed a significant development in terms of defense industrialization for almost 200 years, following the late seventeenth century until the 1830s when the world entered the Age of Systems. People have been using each individual warfare tool – ships, guns, or other tools- separately without integrating them to create a more complex system until the Age of Systems of the mid-nineteenth century. After the 1830s, people started to integrate warfare equipment and use those integrated tools in a coordinated manner, thereby creating the first warfare *systems* of history.[190] The 200 years, as mentioned above, was a relatively stable time due to most of the rulers' negative attitude towards the global defense industry innovations. Rulers simply rejected modernizing their armies with the newly developing defense industry innovations due to the high costs. As Krause notes, the new and standardized weapons required standardized armies for proper integration, which meant more investment and more expenditure for rulers to train their armies. As a result, most of the rulers ignored such requirements, and states increased their control over defense industrialization in terms of production and trade in order to maintain the status quo. In this period, most

[188] Krause, *Arms and the State*, 47-48.

[189] Krause, *Arms and the State*, 48.

[190] Creveld, *Technology and War*, 142.

of the arms transfers were being carried out with the state-to-state policy. However, that attitude was changed with Industrial Revolution.[191]

Industrial Revolution, which was started in the late eighteenth century, immediately proved itself to be a significant game-changer for the process of global defense industrialization. The developments in the metallurgical sciences and engineering, such as using steam power in production and iron and steel construction, enabled defense industries to reach a greater production speed and produce high-quality products. From that point onwards, states began taking private firms seriously, and as a result, arms transfers have transformed from being carried out between states to being carried out between states and private firms at the same time. Along with Britain, Germany and France were considered pioneers of defense industrialization during the Industrial Revolution. Those three states not only led the industry with the innovation they pursued in defense production activities, but they also emphasized the importance of exports. In fact, exports were driving forces for states with strong national defense industrialization processes to take more giant steps towards the global defense industry's leadership status. In this period, the three pioneers realized that private companies could work harder and more effectively to improve their products, gain more, invest in research and development activities, and eventually contribute to their own country's power and wealth in an open and competitive market where exports are allowed. During the period starting from the Industrial Revolution to the beginning of World War I, the major arm recipients of those major producers were Greece, Bulgaria, Romania, and Ottoman Empire.[192]

Thanks to the technological developments in the global arms industry during and after the Military Revolution, Industrial Revolution, and Age of Systems, which enabled to use of weapons as a whole efficient advanced *system,* rather than individual weapons alone,[193] the armament race has accelerated from the late nineteenth century towards the early twentieth century. The period until World War I marked the ascent of licensed

[191] Krause, *Arms and the State*, 54-55.

[192] Krause, *Arms and the State*, 56-72.

[193] Creveld, *Technology and War,* 141-220.

production of private firms in the process of global defense industrialization. Along with indigenous production and export, states started to take advantage of producing one major manufacturer's defense products at home through licensed production and therefore inheriting its technological know-how. Such development eventually led to a significant spread of defense products globally.[194] The dominance of private companies in the international defense industry production and trade has continued until World War I.[195] Furthermore, the private company dominance has been interpreted by society as the main reason for the war.[196]

The early historical data demonstrate that states were the dominant actors of the global defense industrialization process for an extended period, and they have used the process to ensure national security. When the trade was finally considered a valid option of interaction, it was still conducted between states. However, non-state actors such as companies also started to appear on the stage after the Industrial Revolution has begun and the world witnessed a boom in weapons technology, which extensively reflected on the potential profits gained by the trade of defense industry equipment. The increase in the number of actors involved in the global defense industrialization process indicates a switch from a pure Neorealist approach to an eclectic approach for evaluating the process.

4.2. Era of The Two World Wars (1914-1945)

The twentieth century has started with maintaining and even improving the nineteenth-century's legacy: private firms' dominance in defense industrialization. However, such trend had to take a twist towards the opposite direction of increased government control after World War I outbroke. The period between World War I and World War II marked a significant change of public opinion and global trends about the process of defense industrialization, which later led to further technological advancements in the modern arms industry.

[194] Pearson, *The Global Spread of Arms*, 12.

[195] Stohl and Grillot, *The International Arms Trade*, 14.

[196] Stanley and Pearton, *The International Trade in Arms,* 4-5.

In the nineteenth century, defense industrialization, both in terms of production and transfers were mainly controlled and led by private actors, which have become industry giants such as Britain's Vickers, Germany's Krupp, and France's Schneider or Forges et Chantiers de la Mediterranée.[197] Before World War I started, societies considered those private enterprises and their weapons as the *causes* of wars, and the masses have supported the 'no weapons' policy. The public opinion at the time suggested that if there were no weapons, there would be peace; therefore, those evil men (private arms producers) should not be producing any more weapons for the peace to be achieved.[198]

The most significant consequence of the outbreak of World War I for defense industrialization was the change in the global society's perception of weapons. The period between the two world wars marked the shift in public opinion from 'no guns equal to peace' to 'guns equal to peace.' Such a change of perception was due to the shift in the controlling actor. As the state took over the control of defense industrialization from private companies, arms production and procurement started to draw a lesser reaction from society. In the period between the two wars, states such as the Union of Soviet Socialist Republics (USSR), the United States, and France have begun to actively support research and development activities and provide funds and skilled personnel for manufacturers in order to improve their defense industrialization processes.[199] States' re-claiming the control of defense industrialization proved to be somehow useful, especially for the states with industry's giant companies. As Krause points out, states like Britain, France, and Germany were able to assist other states with relatively smaller defense industries or no defense industries before 1914, thanks to their history of technological developments and, subsequently, their niche specialization in the defense industry. However, the perks of such global expansion of defense equipment were not enjoyed by major producer states for a long time; because by the outbreak of World War I, the exporter states such as France and Germany faced

[197] Krause, *Arms and the State*, 58-61.

[198] Stohl and Grillot, *The International Arms Trade*, 15.

[199] Ibid., 15-7; Stanley and Pearton, *The International Trade in Arms,* 110-1.

with their own weapons directed right against themselves in the hands of importer states such as Bulgaria and Russia at the battlefields.[200]

After World War I, the world experienced a brief period of decrease in overall arms production due to states' measures to control production and transfer of military equipment.[201] Major producers have begun to require official licensing documents to allow the export of any defense equipment after the 1930s in terms of steps taken to manage defense industrialization globally. Although such a 'stagnation' period did not last long and was cut aggressively by the outbreak of World War II, the period helped states that did not pursue a military superiority through war to build military alliances to achieve their political and economic aims.[202]

The global defense industrialization process, especially the arms trade, has entered into a transformation phase due to WWI's devastation, the Great Depression, and the rise of nationalist movements. In the interwar period, private firms conducted the global arms trade with profit-driven economic motivations without intensive state interference. Significant technological developments have taken place in the armament industry during that period, increasing the market share of the major supplier states such as the United States and the United Kingdom. In addition to the major players, medium-range powers such as Poland, Lithuania and Yugoslavia also entered indigenous defense production since the future was highly uncertain. Each state felt the need to rely on its own resources against the possibility of such an uncertain future bringing an undesired outcome.[203]

When the future brought the undesired outcome and the Second World War outbroke, state involvement in the global defense industrialization process, especially arms transfers, increased significantly.[204] During World War II, arms production and trade

[200] Krause, *Arms and the State*, 64.

[201] Stanley and Pearton, *The International Trade in Arms,* 18-9.

[202] Ibid., 72.

[203] Robert E. Harkavy, "The Changing International System and the Arms Trade," *The Annals of the American Academy of Political and Social Science* 535 (September 1994): 16-19, https://www.jstor.org/stable/1048122.

[204] Pearson, *The Global Spread of Arms*, 13.

have continued to grow faster, paving the way for the emergence of new producers and technologies.[205] Before and during WWII, governments gradually increased their control on the trade of armaments, provided funds for R&D activities, and granted low credits for national defense industry companies to boost indigenous production and export.[206]

Finally, putting aside the states and companies' strategic and operational capabilities, what made victory possible for the winners was that they could successfully integrate users with the weapon systems. As Creveld argues, the winners of the war were the ones who introduced skilled and trained personnel to the complex and sophisticated weapon systems at the time. They were the ones who closed the Age of Systems while opening up the Age of Automation.[207][208] Such interpretation demonstrated the significant contribution of scientific advancements to the evolution of global defense industrialization.

Although states as primary actors brutally competed with each other by investing in their offensive and defensive capabilities due to the heightened security dilemma and increased uncertainty, non-state actors were not completely excluded from the global market. In the interwar years, states even extended their defense industry-related cooperation and pursued licensed production as a form of cooperation. Therefore, it can be argued that the eclectic approach is still valid for this period since states re-claimed their position as the most dominant actors in the interwar years' defense industrialization process due to the courses of events at the time; however, they still supported the non-state actor involvement to a certain extent.

[205] Krause, *Arms and the State*, 81-2.

[206] Stohl and Grillot, *The International Arms Trade*, 16-7.

[207] Creveld, *Technology and War,* 222-295.

[208] According to Creveld, the Age of Automation is the period between 1945 and the present day. In this period, machines have become more complex due to the changing structure of the world after WWII. The technology has become more computerized as warfare has gained a more *digital* dimension.

4.3. Cold War Period (1945-1991)

One of the most critical features of the Cold War period in terms of defense industrialization was the significant growth in the global arms trade.[209] The growth has taken place both in quality and in the quantity of arms production and the volume of arms transfers. After WWII, governments focused exclusively on R&D activities to produce advanced and sophisticated weaponry. In the Cold War period, the governments' military budgets were adjusted in line with their defense industrialization process.[210] Governments enlarged their military inventories and further improved their national defense industries by producing their own equipment or buying from a foreign source. However, more states started to require export licenses gradually for their arms transfers to approve a sale as states re-emphasized their interest in asserting control over defense industrialization in the aftermath of World War II.[211]

The competition between two major powers, United States and the Soviet Union, dominated the global defense industrialization after World War II. The United States has considered Europe as its closest ally since European states together were capable enough to stand up against the Soviet Union in the region. However, United States had to help the states such as Britain, France, and West Germany re-build their defense industries since WWII devastated a significant portion of the European defense industry. United States pursued such assistance plans initially through licensed production of U.S. defense equipment and later through co-production, offset, and building up multinational corporations.[212] The U.S.'s primary aim to conduct collaboration projects with the European states in that period was to strengthen those states militarily to help them stand up on their own feet in case a threat comes from the Soviet Union. In addition to that, U.S. also aimed to reduce manufacturing costs through co-production, reaching new markets with the help of partner states, and

[209] Stohl and Grillot, *The International Arms Trade*, 17.

[210] Krause, *Arms and the State*, 81-4.

[211] Taylor, "Defence Industries in International Relations," 59.

[212] Ibid., 60-6.

learning different innovation techniques of the ally nations.[213] Sure enough, the 'self-sufficient' and independent character of the U.S. defense industry remained intact; however, European states developed a tendency to cooperate in defense industry production and trade at the expense of their national autarky. Furthermore, almost all European states have become a member of a defense alliance such as NATO to cope with global security issues collectively after the WWII ended. [214]

U.S. assistance to European states has continued during the 1950s and 1960s. The Soviet Union was providing defense equipment to the communist world and mainland China during the same period.[215] Although both powers were considered major suppliers, the Soviet Union was not considered a *global* supplier until it made an arms transfer deal with Egypt in 1955. Former sole global supplier U.S. boosted its aid and assistance programs to European and Third World countries through formal resolutions such as the Mutual Security Act of 1954, the Foreign Assistance Act of 1961, and the Foreign Military Sales Act of 1968 after the Soviet Union emerged as a global supplier against the United States. In the 1960s, United States started to give weight to sale activities and aid to third parties; consequently, Foreign Military Sales (FMS) has been its dominant sale method since 1968.[216]

Before the 1960s, arms production was mainly carried out by what Pierre names the "Big Four," consisting of the United States, USSR, France, and Britain, and the products were being transferred to the states within NATO or Warsaw Pact. Developing countries such as South Korea, India, and Israel had also joined both the producers and recipients' team as the years went by; however, those states were not in serious indigenous production and could not provide relevant political support for their national production, which eventually could displace the Big Four from their positions.

[213] Bitzinger, "The Globalization of the Arms Industry," 189-91.

[214] Diane L. Maye, "Autarky or Interdependence: U.S. vs. European Security and Defense Industries in a Globalized Market," *Journal of Strategic Security* 10, no. 2 (Summer 2017): 33-47, www.jstor.org/stable/26466841

[215] Bitzinger, "The Globalization of the Arms Industry," 176.

[216] Krause, *Arms and the State*, 83.

Therefore, South Korea, India, and Israel were not considered significant threats by other big players during the Cold War.[217]

By the 1970s, European states finally re-built their strength in terms of defense industrialization, and they have risen as major suppliers in the global arena. While states like France, Britain, Italy, and Spain pursued an aggressive export strategy addressing other states in that period, Japan, Canada, Sweden, and Switzerland adopted a neutral position in their arms transfers.[218] United States adopted a more R&D-oriented position from the 1970s onwards and allocated a large portion of its total spending to defense industry-related R&D projects.[219] The Soviet Union started to offer incentives such as credits with low-interest rates, discounted prices, and extended grace periods for its clients to stay in the competition against the United States and gain superiority. The Soviet Union had followed a more 'financial' road because, unlike the United States, it was not heavily investing in technology. Nevertheless, both U.S. and Soviet Union's efforts paid up, and they reached a new market: Middle East.[220] In addition to that, both parties achieved the desired market success thanks to the increased demand for weaponry from Middle Eastern states due to the profit derived from OPEC oil price increases and the Middle-Eastern states' need for such weaponry in the Arab-Israeli Wars.[221]

The 1970s also witnessed the further development of transatlantic defense industry cooperation due to NATO members' concerns regarding "standardization, rationalization and interoperability" of military equipment.[222] Such cooperation led to greater developments in military technology, and as a result, weapons dating from World War II-era were replaced by more sophisticated and up-to-date weapons.[223]

---

[217] Pierre, *The Global Politics,* 12-4.

[218] Krause, *Arms and the State*, 142.

[219] Vernon and Kapstein, "National Needs, Global Resources," 2.

[220] Krause, *Arms and the State*, 115-6.

[221] Ibid., 106.

[222] Andrew D. James, "The Prospects for a Transatlantic Defence Industry," *Chaillot Paper* 44 (January 2001): 95, https://www.iss.europa.eu/sites/default/files/EUISSFiles/cp044e.pdf.

[223] Pierre, *The Global Politics*, 8-10.

Many Third World countries also started to develop their own defense industrial bases after the 1970s, thanks to such early efforts for building a global defense industry.[224]

States started to change their old wartime weapons with new advanced weapons, and consequently volume of overall global defense trade has increased until the late 1980s. Minor suppliers such as Israel, Brazil, South Africa, and India continued their efforts to become major arms producers.[225] Co-production and co-development projects between major and minor powers of defense industrialization also gained speed along with licensed production as the dominant form of globalization in that period. States involved in cooperative projects developed high-quality and high-quantity complex defense equipment in the 1970s and 1980s.[226]

The United States had to maintain its major supplier status during the 1980s due to the arms race with the Soviet Union and against communism threat. As a result, the export of defense items provided U.S. economic benefits along with a strong major power status. Furthermore, its production volume and capability were fed by its domestic demand, which enabled the U.S. national defense industry to become more permanent.[227] Another significant characteristic of the 1980s was that major arms producer states increased their cooperation with other capable producers with developed national defense industries more than ever. This reduced production costs because decreased -if not stabilized- European arms exports to Third World countries reduced their profits remarkably.[228]

Since the 1990s, the dominant way of European cooperative defense production has been transatlantic and intra-European co-production and co-development arrangements.[229] European states created a European identity and collective European

[224] Bitzinger, "The Globalization of the Arms Industry," 186-7.

[225] Krause, *Arms and the State*, 154.

[226] Pierre, *The Global Politics*, 8-9; Bitzinger, "The Globalization of the Arms Industry," 170-98.

[227] Krause, *Arms and the State*, 99-112.

[228] Ibid., 136.

[229] Bitzinger, "The Globalization of the Arms Industry," 178.

production capability and reduced the production cost at the expense of losing national autarkies due to such defense industry collaboration arrangements. However, although Europeans started the process of collaboration in the 1970s, it was not until the 1990s that the United States took such activities seriously. Before the 1990s, the U.S. did not need to cooperate to survive and evolve in the competitive global defense industry.[230] The United States and similarly the Soviet Union pursued to exercise a certain level of control over their customers through arms transfers instead of engaging in multidimensional cooperation in the Cold War period. When the initial sale was completed, both United States and the Soviet Union started to act slower to respond to the client's further and subsequent needs. Both the U.S. and USSR did not see a point in being promptly responsive to such needs since the client has already been dependent after the completion of the sale. Furthermore, what the United States was doing differently than the Soviet Union in this period was that it was using the power of *pre-emptive sales*. The United States sold advanced weapons to the states before they wanted to buy any weapons. With that move, the U.S. aimed to build an arms trade relationship with the recipient states and consequently prevent their governments from making a future armament deal with the Soviet Union.[231]

From the 'positioning of superpowers in global defense industrialization' point of view, what has been the most significant feature of the Cold War period was that arms production and sales had been used as foreign policy tools by the United States and the Soviet Union in their fierce East-West competition. Even their military aid to the Third World aimed to create proxies that were capable of reaching strategic regions in the name of the U.S. or USSR.[232] In the East-West competition of the Cold War, Western states mainly focused on maintaining their autonomies in defense production in order to stay ahead of the Soviet Union and its allies.[233]

---

[230] Hayward, "The globalisation of defence industries," 116-7.

[231] Stanley and Pearton, *The International Trade in Arms,* 82.

[232] Pierre, *The Global Politics*, 3-5.

[233] Hayward, "The globalisation of defence industries," 116.

Cold War is the first period where this study's fundamental theories other than Neoliberal institutionalism and Neorealism can be tested. Firstly, states' export license requirements can be interpreted as evidence for Gilpin's Strategic Trade Theory (STT). The Cold War period was the first time that governments started to require export licenses for trade of military equipment in order to protect their national defense industries. Secondly, Gilpin's theory of New Economic Geography (NEG) and his regionalism were supported by the fact that the competition between the two superpowers of the time created room for extended cooperation *within* their respective alliances. Therefore, it can be argued that the world had two primary *regional* defense industries, both possessing a superpower at the core during the Cold War. Neorealist regionalism can be accepted as the dominant characteristic of the Cold War period's global defense industrialization process.

4.4. Post Cold War Period (1991-2000)

The period starting with the end of the Cold War and ending with the beginning of the twenty-first century is significant in terms of drawing attention to new non-state actors who have been challenging international security and order, which have long been secured by the legitimate governments. Although states tried to re-establish a stable order through placing 'peace' at the core after the collapse of the Soviet Union, the volume of weapons held by non-state actors such as terrorists or newly emerging former communist states was significantly high, and those weapons in the market were being used either for destructive purposes or trade-related goals. States focused on applying arms controls to preserve peace; however, such efforts did not reach the desired level of success in the end.[234]

Even though the 1990s witnessed a boom in global defense industrialization, it did not last long. In the early 1990s, the competition of defense industrialization speeded up due to the increased volume of inter-state wars like the Gulf War and the shift to conventional weapons as an expected result of those incidents. During this early period, major arms suppliers struggled against emerging suppliers since those new

[234] Pearson, *The Global Spread of Arms*, 1.

players started to export their *alternative* products to the markets under the dominance of major suppliers. However, the global arms trade started to lose its momentum again after the explosion of arms sales during the Gulf-War started to simmer down. Furthermore, states already possessed large quantities of weapons in their inventories after the Cold War, and governments had to avoid demanding new weapons due to the economic crises of the late 1990s; therefore, the nature of global competition has changed. States have imposed military budget cuts after the Cold War since a large national military budget was not vital in the post-Cold War's relatively safe environment. Therefore, defense companies have started to be concerned about economic gains rather than political ones gradually.[235] States concentrated on globalization through arms exports and cooperation because domestic demand was not strong enough for producer states to survive in the competitive global market. States and companies also could not carry out their R&D activities effectively because of similar reasons.[236]

For the Western powers, international trade was a valid option to survive in such a competitive market because the former Soviet states with their old Soviet weapons became a new market with large profit opportunities after the dissolution of the Soviet Union and the Warsaw Pact. Under such circumstances, United States has re-emerged as the most dominant power in the global arms trade.[237] At the same time, European states increased their existing inter-state cooperation and opened up to the U.S. market due to economic and strategic considerations. However, although intra-European integration was successfully implemented, integration of European defense industry to U.S. market was costly due to U.S.' strict regulations regarding defense industrialization.[238]

The United States has focused on developing dual-use technology for its national defense industry products in the post-Cold War period. According to the U.S.

[235] Stohl and Grillot, *The International Arms Trade*, 24-31.

[236] Hayward, “The globalisation of defence industries,” 116-7; Bitzinger, "The Globalization of the Arms Industry,” 178-9.

[237] Stohl and Grillot, *The International Arms Trade*, 26-9; Pearson, *The Global Spread of Arms*, 14-5.

[238] Maye, "Autarky or Interdependence,” 38-9.

government, a defense item with dual-use technology could be sold easier in the global market because those items are interchangeable between the military and commercial versions.[239] However, although the dual-use technology move was a step towards globalization of the U.S. defense industry, United States has not gone further to integrate itself into the global defense industry and engage in cooperation activities in this period. While European states focused on standardization in their defense industry equipment to appeal to larger markets, United States did not put a similar effort on global-scale standardization activities because it did not need to. Instead, it continued to produce defense equipment, which is integrable only with other U.S. defense equipment.[240]

In the post-war period, states gradually pulled away from the fierce competition of the Cold War and left the bigger room for private companies in terms of global defense industrialization activities. Cooperation was the only possibility for such companies in order to survive in the post-war environment due to the serious economic challenges they have faced. Therefore, it can be argued that the post-Cold War defense industrialization process needs to be interpreted by the eclectic approach of this study, only with a relatively more Liberal inclination and economic focus due to the decreased insecurity and competition of the period. Also, it can be argued that the European states' regional cooperation in the post-war period can be accepted as evidence for the beginning of the transition towards regionalism.

4.5. Globalization Period (2000-2019)

One of the most significant incidents of the twenty-first century for defense industrialization and security-related issues was the terrorist attacks of 11 September 2001. The terrorist attacks led the United States to announce a military policy named "Global War on Terror," which boosted the relatively passive global defense industrialization period of the former century.[241] Its allies all over the world joined the

[239] Ibid., 37.

[240] Ibid., 42.

[241] Ibid., 37-8; Stohl and Grillot, *The International Arms Trade*, 50.

United States' fight against terrorism, which eventually strengthened the dominant security provider position of the U.S. Furthermore, United States increased its defense budget, and European companies started to be more involved in the U.S. defense industrialization process through investments.[242] 9/11 attacks also caused the U.S. government to renounce its insistence about implementing dual-use technology in the production of defense equipment due to the removal of former military budget cuts and the consequent need for greater profits.[243]

Innovation has gradually become the most significant feature of U.S. defense industrialization in the globalization period. The U.S. owed an essential part of its primacy in the global competition to its arms industry's dominant characteristic. However, United States started to look for alternative ways to remain a global defense industry leader since maintaining high innovation by producing cutting-edge technology has been costly.[244] Hence, the U.S. opened up facilities for production overseas in order to bypass its national tax regulations, employed a high-skilled and low-paid workforce, and eventually materialized its low-cost production and R&D objectives.[245]

After the beginning of new millennia, foreign companies' efforts to stay in the U.S. defense market have begun to pay off. Many foreign countries such as Italian Finmeccanica, French Thales, or Israel Aerospace Industries could gain access to American technological knowledge and had the chance to close the gap in between by participating in collaborative projects by their subsidiaries in the United States. Although the gap did not close, especially European states could gain strength out of those collaborative actions.[246] Furthermore, even though European states could not compete with the U.S. in terms of innovation and R&D in their national and regional

---

[242] Jacques S. Gansler, *Democracy's Arsenal: Creating a Twenty-First-Century Defense Industry* (Cambridge: The MIT Press, 2011), 131.

[243] Stohl and Grillot, *The International Arms Trade*, 38.

[244] Andrew S. Erickson, "How Strong are China's Armed Forces?" in *The China Questions: Critical Insights into a Rising Power*, ed. Jennifer Rudolph and Michael Szonyi (Cambridge: Harvard University Press, 2018), 79*;* Gansler, *Democracy's Arsenal*, 135.

[245] Gansler, *Democracy's Arsenal*, 307-8

[246] Ibid., 145-6.

defense industrialization processes, they assembled their power to produce, export, and compete with the U.S. through adopting the sole-source supply policy and the division of labor between few designated European companies.[247]

In the early twenty-first century, Russia started to re-build its strength in terms of national defense industrialization. Putin's administration concentrated on allocating a large portion of the financial resources derived from the oil and gas trade to the national defense industry. In his term, the Russian government also built a production model similar to the European sole-source supply policy to re-boost national defense production and foreign sales. In the globalization period, the Russian defense industry was similar to its predecessor's industry due to a shared focus on high-performance and low-cost production aiming to be used domestically and globally.[248]

Even though in the previous decades the most dominant players of global defense industrialization were the United States and Russia, the twenty-first century witnessed the rise of another strong and challenging major player. China has been exclusively focusing on high technology making and reducing production costs in defense production with its economy-concerned and export-oriented policy. Chinese government emphasized the significance of R&D activities in order to be a competitor of the United States; hence China developed a national defense industry that is more involved in the production and export of advanced high-technology defense equipment against the U.S. since the early 2000s. Besides, China could reach a major supplier position in a short period since it had a distinct advantage on the cost side due to its large 'army' of relatively low-paid but high skilled workforce.[249]

The twenty-first century witnessed a far greater boom in global defense industrialization than the previous periods of history, mainly due to the speed and scope of the globalization period’s technological developments. Also, historical evidence demonstrated that, in the twenty-first century's newly developing competitive

[247] Ibid., 310.

[248] Ibid., 321-3.

[249] Erickson, “How Strong are China’s Armed Forces?” 79-80; Gansler, *Democracy’s Arsenal*, 327-31.

environment, most states agreed that the benefits of cooperation are far greater than its potential security risks.[250]

Beginning with the United States' Global War on Terror in 2001, the world entered into a new period of increased competition between states in terms of defense industrialization due to the heightened insecurity. However, the twenty-first century also witnessed an increased and expanded cooperation between states and non-state actors due to the period's accelerating globalization. States and non-state actors gradually started to emphasize the importance of cooperation in terms of global defense industrialization for political, economic, and technological gains while still protecting their national defense industries to a certain extent. The dual existence of modified state protectionism on national defense industries and extended defense industry collaboration projects supports Gilpin's STT and this study's eclectic approach.

Furthermore, the millennium era witnessed the emergence of different regional clusters where states collaborated in terms of their defense industrialization activities. The historical background demonstrated that the global defense industrialization process has been evolving for a long time. The evolution has started at a national level, continued with the global level, and is now headed towards the regional level. It can be argued that, as of 2020, the global defense industrialization process is somewhere between globalization and regionalization, and on both levels, cooperation and competition exist at the same time. Therefore, it is necessary to investigate the cooperative and competitive behaviors of powerful states towards each other with the help of Buzan and Wæver's RSCT along with Neorealist and Neoliberal institutionalist perceptions. It can be argued that the twenty-first century's global defense industrialization process is dominated by the states, which together with their allies or against their enemies, formed regional security clusters where cooperation along with competition for defense industrialization has been intensified due to the involving actors' political, economic and technological concerns.

[250] Gansler, *Democracy's Arsenal*, 146.

CHAPTER 5

GLOBALIZATION, DEFENSE INDUSTRIALIZATION AND MAJOR GLOBAL POWERS IN THE TWENTY-FIRST CENTURY: CASE STUDIES

One of the most important events of the twenty-first century was the globalization of defense industrialization. It is essential to evaluate few significant events as case studies in order to analyze the cooperative and competitive behaviors that major global powers demonstrate in their defense industrialization processes in the globalization era.

The first case study investigates the cooperative and competitive behaviors of the United States, Russia, and Turkey by referring to three distinct yet similar defense industrialization projects. The second case study focuses on the Asian defense industrialization process, which is highly affected by a global nuclear threat located in the region while placing South Korea at the center and evaluating the United States, China, South Korea, and Israel's cooperative behaviors towards each other. The third case study investigates a Western competition and cooperation project involving the United States and the European Union along with non-European defense industrializers as partners of the established defense collaboration project. The last case study deals with Australia's defense industrialization process concerning its cooperative behavior towards Japan and France under the United States' influence.

This chapter's overall structure comprises four sub-sections, all of which concentrate on different sets of actors engaging in different kinds of collaborative activities. This chapter provides case studies for a detailed investigation and understanding of the

aforementioned Liberal and Realist theories along with Buzan, Wæver, and Gilpin's frameworks.

5.1. Turkey's Three-Dimensional Stalemate: F-35 Program, S-400s, and T129 Atak Helicopters

In order to provide a comprehensive analysis of the trajectory of the early 21st-century Turkish defense industry stalemate, it would be necessary to have a brief explanation of the historical background of each program involved.

The first project to investigate is F-35 Joint Strike Fighter (JSF) program. The United States has been initiating fighter aircraft programs to develop advanced air-fighting capabilities and replace old aircraft in its inventory with such newly developed aircraft since the Cold War period's competition with the Soviet Union. However, those efforts have been carried out without reaching the desired objectives. One of the most well-known cases for such a condition was Tactical Fighter Experimental (TFX) program which was initiated in the early 1960s. Although the U.S. continued to pursue its goal of developing a multiservice aircraft that would serve the Air Force, Navy, and Marine Corps' needs at the same time and thereby increase cost-effectiveness; it could not initiate a fully effective project until the JSF program started. Furthermore, the immediacy of developing a successful joint aircraft increased by the 1990s due to the synchronized emergence of all three services' aircraft replacement needs. Clinton Administration initiated the Joint Advanced Strike Technology (JAST) program to cope with such immediacy in 1994, which later became JSF. [251] Although the JAST program aimed to develop advanced technology that can be adopted by tactical aircraft, in later stages, such aim transformed into developing a whole new tactical aircraft.[252]

In 1996, the American companies Lockheed Martin and Boeing were selected as primary contractors of the JAST program and proceeded with Concept Demonstration

[251] Christopher Preble, *Joint Strike Fighter Can a Multiservice Fighter Program Succeed?* (Washington: CATO Institute, 2002), 2-7, www.jstor.org/stable/resrep04908

[252] "History: JAST," F-35 Lightning II, F-35 Lightning II Joint Program Office, accessed June 02, 2020, https://www.jsf.mil/history/his_jast.htm.

Phase (CDP). During the CDP, the program's name was changed to JSF due to the increased possibility of aircraft production instead of technology development. In 2001, Lockheed Martin was awarded System Development and Demonstration (SDD) contract when the competition with Boeing came to an end with the victory of Lockheed Martin's X-35 against Boeing's X-32. The SDD phase, which started in late 2001, was projected to take ten years, and it involved both the design and manufacturing phases of the aircraft.[253]

Although initially, the project was a two-party collaboration between the United States and the United Kingdom, it became multinational with Canada's addition in 1997. The program's SDD phase consisted of six other members such as Italy, the Netherlands, Turkey, Australia, Denmark, and Norway as the Cooperative Program Partners (CPP). In addition to the main group of nine partners, Singapore and Israel have taken part in the project as Security Co-operation Participants (SCP), and Japan became the program's export partner.[254] The globalization level has increased gradually throughout the time, even to involve Chinese vendors and sub-contractors with their relatively cheaper products in the project. Such characteristics altogether indicate the *jointness* of the program.[255]

The multinational characteristic of the program has been emphasized especially by the U.S. contractor company Lockheed Martin on the ground that the program aimed to strengthen the security of all involving ally nations by "playing a critical role in joint domain operations, the fighter brings unprecedented situational awareness, information sharing and connectivity to the coalition."[256] JSF has been considered highly essential for NATO operations since the F-35s was projected to provide more

[253] "Program Overview," F-35 Lightning II, F-35 Lightning II Joint Program Office, accessed June 2, 2020, https://www.jsf.mil/program/; "F-35 Introduction," F-35 Lightning II, F-35 Lightning II Joint Program Office, accessed June 2, 2020, https://www.jsf.mil/f35/index.htm.

[254] Srdjan Vucetic and Kim Richard Nossal, "The International Politics of the F-35 Joint Strike Fighter." *International Journal* 68, no. 1 (Winter 2012-13): 4-5, www.jstor.org/stable/42704957; "History: JAST," F-35 Lightning II; "History: F-35 Acquisition," F-35 Lightning II, F-35 Lightning II Joint Program Office, accessed June 02, 2020, https://www.jsf.mil/history/his_f35.htm.

[255] Srdjan Vucetic, "The F-35 Joint Strike Fighter," in *Making Things International 2: Catalysts and Reactions*, ed. Mark B. Salter (Minnesota: University of Minnesota Press, 2016), 3, www.jstor.org/stable/10.5749/j.ctt1b9s0d9.4.

[256] "F-35, The Backbone of Next Generation NATO Operations," Joint Air Power Competence Centre, JAPCC, accessed August 03, 2020, https://www.japcc.org/f-35-the-backbone-of-next-generation-nato-operations/.

advanced military capabilities to the program partners that are mostly NATO members such as Canada, Denmark, Italy, Netherlands, Norway, Turkey, United Kingdom, and the United States.[257] Program partners Australia and Switzerland as non-NATO member primarily involved in the production of components of *all* F-35s;[258] others such as Finland, Israel, Japan, and the Republic of Korea participate in the program as customers with projections to have more significant shares in the design and production phases.[259]

United States Department of Defense's primary motivation behind initiating the JSF program was to develop an affordable advanced aircraft for its own forces' needs and the similar needs of its allies.[260] Such affordability was aimed to be maintained by all means during the lifetime of the aircraft. The JSF program also aimed to make co-production partners access U.S. technological know-how and develop similar capabilities to the United States' thanks to its multinational characteristic.[261] However, even though the JSF was a multinational program, United States has the upper hand in controlling the whole project,[262] and Turkey's problematic position in the story derives from such hierarchy. Although Turkey has been a program partner since 1999 and received its first F-35 in 2018 in the U.S. for pilot training, it was excluded from the program by Pentagon's politically motivated decision dated 17 July 2019.[263] In order

[257] Vucetic, "The F-35 Joint Strike Fighter," 3-8.

[258] "Australia: Industrial Partnerships," F-35 Lightning II, Lockheed Martin, accessed August 03, 2020, https://www.f35.com/global/participation/australia-ip; "Switzerland F-35: Your Mission is Ours," F-35 Lightning II, Lockheed Martin, accessed August 3, 2020, https://www.f35.com/global/participation/switzerland.

[259] "Finland: Lockheed Martin. Your Mission is Ours.," F-35 Lightning II, Lockheed Martin, accessed August 03, 2020, https://www.f35.com/global/participation/finland; "Israel: Israel's 5th Generation Fighter," F-35 Lightning II, Lockheed Martin, accessed August 03, 2020, https://www.f35.com/global/participation/israel; "Japan: JASDF's Next Generation Fighter," F-35 Lightning II, Lockheed Martin, accessed August 03, 2020, https://www.f35.com/global/participation/japan; "Republic of Korea: The F-35 Lightning II," F-35 Lightning II, Lockheed Martin, accessed August 03, 2020, https://www.f35.com/global/participation/republic-of-korea.

[260] "Program Overview," F-35 Lightning II

[261] "F-35 Background," F-35 Lightning II, F-35 Lightning II Joint Program Office, accessed June 02, 2020, https://www.jsf.mil/f35/f35_background.htm.

[262] Vucetic, "The F-35 Joint Strike Fighter," 6.

[263] "Turkey Received Delivery of Its First F-35 Aircraft," F-35 Lightning II, Lockheed Martin, accessed June 03, 2020, https://www.f35.com/news/detail/turkey-received-delivery-of-its-first-f-35-aircraft; "Turkey," F-35 Lightning II, Lockheed Martin, accessed June 03, 2020, https://www.f35.com/global/participation/turkey.

to understand such a political decision, the next step to consider is the Turkish-Russian S-400 case.

The second step to analyze the Turkish stalemate is making sense of its Russian-made S-400 Triumph missile systems procurement. Turkey has needed a reliable air defense system since the Gulf War of the 1990s. United States, Germany, and the Netherlands provided U.S.-made Patriot missile systems under the NATO flag during the war to protect Turkey from Saddam Hussein's attacks. However, although Turkey's air protection needs continued even after the Gulf War ended, NATO has provided alternative solutions to meet such needs instead of selling a fully operational defense system controlled solely by Turkey. Furthermore, Turkey constantly insisted on having its own operating system, claiming that NATO's "ballistic missile defense architecture" with limited range could not provide the necessary protection for Turkey's problematic eastern region. For that purpose, Turkey even initiated an indigenous air defense system project. However, Turkey returned to procurement options as the first choice since carrying out such a project timely was excessively costly for a country in an immediate need.[264]

Turkey's tender requirements included low price, co-production, and technology transfer, and such requirements have met by a Chinese contractor in 2013. However, the agreement has not been finalized due to the pressure of the Obama administration. Also, United States has removed the Patriot systems that were already deployed in Turkey at the time[265] and was reluctant to solve its ally's problem in the later stages. Therefore, Turkey started to look for alternatives since the immediacy of the need for an air defense due to heightened tension in Syria next to its southeastern border was increased. Turkey finally decided to buy Russian-made air defense systems against

[264] Gonul Tol and Nilsu Goren, *Turkey's Quest for Air Defense: Is the S-400 Deal a Pivot to Russia?* (Washington: Middle East Institute, 2017), 1-4, www.jstor.org/stable/resrep17605; Jim Townsend and Rachel Ellehuus, "The Tale of Turkey and the Patriots," War on the Rocks (blog), updated July 22, 2019, https://warontherocks.com/2019/07/the-tale-of-turkey-and-the-patriots/.

[265] Oded Eran and Gallia Lindenstrauss, *With a New World Order Taking Shape, Turkey Again Looks Eastward* (Tel Aviv: Institute for National Security Studies, 2019), 1-5, https://www.jstor.org/stable/resrep19421; Townsend and Ellehuus, "The Tale of Turkey."

such threats coming from Syria, Iran, and Iraq, and it received the first S-400s by 2019.[266]

The 'technical' reasons why Turkey purchased S-400s were two-folded. First, Turkey needed to protect its southeastern border against attacks from its neighbors. Second, the number of pilots working for the Turkish Armed Forces (TAF) was diminished due to their dismissal after the coup attempt of 2016; therefore, Turkey needed an interim solution until new pilots gained experience.[267] On the other hand, the political side of the story had deeper roots. In a narrower timeline, relations with the United States have been strained since U.S. started supporting Democratic Union Party (PYD) and its armed forces People's Protection Units (YPG) in the Syrian conflict, and Turkey considered both units as terrorist organizations due to their affiliation with Turkey's 'insider enemy' Kurdistan Workers' Party (PKK). In addition to that, Turkey has begun drifting away from its western ally towards Russia and the Russian air defense system offer in 2017 since the United States did not extradite Fethullah Gülen, who was accused of being the mastermind behind the coup attempt against the Turkish government in 2016.[268]

The decision to procure S-400s was significant for two reasons: first, Turkey hoped that Russian military existence in Syria would stop being a threat for its southeastern borders through building up closer relationships in between. Second, Turkey wanted its Western allies to be aware of its strategic importance for NATO by playing the Russia card.[269]

United States objected to Turkey's procurement of Russian S-400 air defense systems on the ground that the system needed to be integrated into Turkey's defense

---

[266] "Turkey: S-400 purchase 'not a preference but a necessity,'" *Aljazeera,* July 13, 2019, https://www.aljazeera.com/news/2019/07/turkey-400-purchase-preference-necessity-190713055039155.html; Verda Özer, "Understanding the S-400 crisis," *Aljazeera,* August 05, 2019. https://www.aljazeera.com/indepth/opinion/understanding-400-crisis-190801201222608.html.

[267] Can Kasapoglu, *Turkey's S-400 Dilemma* (İstanbul: Centre for Economics and Foreign Policy Studies, 2017), 10, www.jstor.org/stable/resrep14080; "Turkey: S-400 purchase,'" *Aljazeera*.

[268] Townsend and Ellehuus, "The Tale of Turkey."

[269] Tol and Goren, *Turkey's Quest*, 4; Eugene Rumer, *Russia and Turkey – It's Complicated* (Washington: Carnegie Endowment for International Peace, 2019) 23, https://www.jstor.org/stable/resrep21000.10.

infrastructure, which was built according to NATO standards and integrated into NATO infrastructure. According to the U.S., integrating S-400s into Turkey's military infrastructure could open the gates for Russians to reach NATO intelligence. Even though Turkey assured that the procured S-400s and its national defense systems would not be integrated and Turkey would have full control over the equipment, United States threatened Turkey to exclude it from the JSF Program unless it pulls back from the deal until the end of July 2019.[270] However, Turkey has lost its partner status in the F-35 Program,[271] and economic sanctions by the United States followed the exclusion since Turkey chose to proceed with the procurement of S-400s.[272]

Although Turkey's primary request for the procurement of an air defense system originally was technology transfer and co-production, the first batch of systems was delivered without such requests being realized. According to President of Defense Industries, İsmail Demir, the second batch would involve technology transfer and co-production. Also, against all allegations arguing that the S-400s would not be unboxed and they would not be used, the procurement has been conducted to possess an *existing* operational air defense system in Turkey; therefore, S-400s would definitely be unboxed, according to Demir.[273]

The diplomatic crisis between Turkey and the United States has a third dimension: the final part of the story relates to Turkey's first internationally co-produced attack helicopter program. Turkey's Turkish Aerospace (formerly known as Turkish Aerospace Industries – TAI) and Italia's Agusta Westland (subsidiary of Leonardo S.p.A.) initiated a co-production program in 2009 to design and manufacture NATO-interoperable T129 ATAK Reconnaissance and Tactical Attack Helicopter -which was an upgraded version of A129 of the Italian partner- in order to meet Turkish Land

[270] Özer, "Understanding the S-400 crisis"; "Turkey: S-400 purchase,'" *Aljazeera*.

[271] Townsend and Ellehuus, "The Tale of Turkey."

[272] "Turkey: S-400 purchase,'" *Aljazeera*.

[273] "Savunma Sanayii Başkanı İsmail Demir'den S-400 açıklaması," *NTV,* June 08, 2020, https://www.ntv.com.tr//turkiye/savunma-sanayii-baskani-ismail-demirden-s-400-aciklamasi,JDll7lZ1PUmKXy0rz-TWzg.

Forces Command's requirements.[274] Turkish Aerospace was also one of the Turkish defense industry companies which contributed to the JSF Program through production and design of strategic equipment.[275] Furthermore, the Turkish company carries out many other collaboration projects with U.S. and European defense companies.[276]

After Turkish Aerospace signed a contract with Pakistan to sell thirty T129 ATAK Helicopters in 2018, it immediately started to suffer from Turkey and the United States' diplomatic crisis. Each T129 ATAK helicopter uses two U.S. made LHTEC-CTS800-4AT turboshaft engine,[277] which is subject to United States' official approval for export. Although Pakistan agreed to give another year beginning from early 2019 for Turkish Aerospace to find a solution to the problem before terminating the contract, an approval from the U.S. in the middle of a crisis is interpreted as a low probability. Turkey's alternative solution to the dilemma is to develop an indigenous engine through Turkish Aerospace's sister company, Turkish Engine Industries (TEI); however, according to specialists, such development needs at least ten years to reach an observable success.[278]

Finally, according to Section 231 of Countering America's Adversaries Through Sanctions Act (CAATSA) of 2017, United States holds the right to impose sanctions on parties who "engages in a significant transaction with…the defense or intelligence sectors of the Government of the Russian Federation". According to that act, Turkey and all of its U.S.-supported defense industry products are under threat. After Turkey conducted the test-fire of its S-400s in late 2020, Houses of Congress have agreed to pass the FY2021 National Defense Authorization Act, which would open the gates for

[274] "ATAK Reconnaissance and Tactical Attack Helicopter," Presidency of the Republic of Turkey Presidency of Defence Industries, SSB, accessed June 05, 2020, https://www.ssb.gov.tr/WebSite/contentlist.aspx?PageID=363&LangID=2; Emre Kürşat Kaya, *European Defence Ecosystem, Third Countries' Participation and The Special Case of Turkey* (İstanbul: Centre for Economics and Foreign Policy Studies, 2019), 7, https://www.jstor.org/stable/resrep21054; "T129 ATAK," Turkish Aerospace, accessed June 05, 2020, https://www.tusas.com/en/product/t129-atak.

[275] "JSF/F-35 Program," Turkish Aerospace, accessed June 05, 2020, https://www.tusas.com/en/product/jsff-35-program.

[276] "Component Production," Turkish Aerospace, accessed June 05, 2020, https://www.tusas.com/en/products/component-production

[277] "T129 ATAK," Turkish Aerospace.

[278] Burak Ege Bekdil, "Pakistan extends Turkey's deadline to deliver T129 helos," *DefenseNews*, January 14, 2020, https://www.defensenews.com/global/europe/2020/01/14/pakistan-extends-turkeys-deadline-to-deliver-t129-helos/.

imposing the CAATSA sanctions on Turkey. Furthermore, other development programs conducted by Turkey and its European allies, such as Turkish Fighter – Experimental (TF-X) built by Turkish Aerospace and British BAE Systems, are also in danger since Europeans would not willingly jeopardize their relations with the United States because most of the European defense industry companies are deeply integrated to the U.S. defense network.[279]

The Turkish case is significant for this study since its subject states, designated according to Buzan and Wæver's framework, are a superpower, a great power, and a regional power which also happens to be an insulator state. This case study also demonstrates the regional patterns of enmity and the superpower United States' ability to affect states' cooperative and competitive behaviors in terms of global defense industrialization process. Although the multinational characteristic of the JSF program was promoted by the primary contractor of the project United States in order to strengthen integration and collaboration within NATO and also with other regional powers; firstly the exclusion of Turkey from the program even though it is a NATO member state, and secondly the problematic status of T129 ATAK Helicopters' sale to Pakistan demonstrated that cooperation in terms of global defense industrialization is still a highly political issue in the twenty-first century and it can quickly transform into a severe competition in a conflictual environment. On the other hand, such political characteristic was also reflected in the Turkish cooperative behavior addressing Russia and competitive behavior addressing the U.S. Turkey did not play the Russia card to get what it wanted in technological or military terms because the delivered S-400s did not match with the Turkish requirements such as technology transfer. Turkish motivation for cooperating with Russia was *to trigger* United States and other NATO member states to materialize its air defense procurement objective and make its allies realize its value. Therefore, it can be argued that Turkey's cooperation with Russia aims to balance the U.S.

[279] Kaya, *European Defence Ecosystem,* 8; Jim Zanotti and Clayton Thomas, *Turkey: U.S. Sanctions Under the Countering America's Adversaries Through Sanctions Act (CAATSA)*, IN11557 (Washington, DC: Congressional Research Service, 2020), https://crsreports.congress.gov/product/pdf/IN/IN11557.

When Buzan and Wæver's framework and theory are applied to such stalemate, one might expect to see each involving actor, especially Turkey and Russia, engage in cooperation within its respective RSC. However, both competition and cooperation, in this case, also have an inter-regional characteristic. Such an outcome can be attributed to three projections developed by Buzan and Wæver's RSCT. First, Turkey is an insulator state which does not belong to any RSC and is on the edge of three RSCs (European, post-Soviet, and Middle Eastern RSCs). Therefore, it is subject to significant regional security concerns of each region more than any regular regional power. Although Buzan and Wæver add Turkey to the European supercomplex, Turkey's cooperation with the U.S. and later with Russia can only be explained by power politics rather than regional security concerns of the states involved in the case. When Turkey felt insecure against the threats (enmity) coming from the Middle Eastern RSC since the 1990s, it immediately turned its Western allies U.S. and European Union, for protection and assistance. In this case, Gilpin's regionalism is more useful in explaining the three powers' behaviors regarding the defense industrialization dimension of the story even though RSCT is still applicable to the case due to its incorporation of the concept of insulator state. Second, as Buzan and Wæver suggested, great powers in a region are more inclined to engage in inter-regional relations with other powers through *penetration*, which can be accepted as an explanation for Russian behavior towards Turkey. Third, European states' cooperation with U.S.; and Russia's competition with U.S. can be accepted as evidence of power politics between great powers, as explained by Buzan and Wæver.

In addition to what has been discussed above, although European states and Russia belong to the same RSC according to Buzan and Wæver's theory and they are both considered as great powers, this case demonstrated that they do not act similar and in favor of the European supercomplex in a conflict regarding global defense industrialization. Russia behaves independently and aims to compete with the superpower through building a defense industry alliance with Turkey, while Europeans choose to cooperate with the superpower even though they are not the primary subjects of the conflict. European states act proactively when taking the superpower's side, considering their relative gains. Such positions of the two powers require a re-drawing

of the theory's borders when the global defense industrialization process of the twenty-first century has been taken into account in the scope of securitization.

Lastly, from the perspective of Buzan and Wæver's framework of 1+4+x, it can be argued that Turkey's strategic move to cooperate with Russia to compete with the United States and the undesired results demonstrate that power politics significantly influence the global defense industrialization process and any cooperation activity to be conducted under such process' roof. Although Turkey has considered Russia's power status as strong as to persuade the United States to agree to its terms, the reality did not match Turkey's expectations.

5.2. United States and Asia Pacific Deal for Balancing North Korea

The Asia-Pacific region in the 21st century has been a significant theater in terms of global defense industrialization due to its multipolar power structure involving super, great, and regional powers such as United States, China, Japan, and South Korea. Besides, North Korea's existence as a nuclear power in the region has been gradually perceived as a threat by South Korea and its principal ally United States. Therefore, the 2010s missile defense crisis between the two Koreas, China, and the U.S., and the consequences of such crisis provide a basis for evaluating the regional impacts of global defense industrialization.

Although North Korea has begun initiating ballistic missile programs in the 1960s, it was not until the 2010s, when President Kim Jong Un took power, that production and testing speeded up. Kim Jong Un's North Korea has been extensively focusing on developing and testing intercontinental ballistic missiles (ICBMs) along with medium and long-range missile production. North Korea has been conducting nuclear tests since 2006, and the year 2016 alone witnessed two separate tests initiated by North Korea.[280]

[280] Joshua H. Pollack, et al., *Options for a Verifiable Freeze on North Korea's Missile Programs* (Monterey: James Martin Center for Nonproliferation Studies, 2019), 4, https://www.jstor.org/stable/resrep19700.6; Edward Fishman, Peter Harrell and Elizabeth Rosenberg, *A Blueprint for New Sanctions on North Korea* (Washington: Center for a New American Security, 2017), 1-2, www.jstor.org/stable/resrep06213.

As a response to such aggression posed by its neighbor, South Korea announced its decision to deploy U.S.-made Theater High Altitude Area Defense (THAAD) anti-missile defense system in 2016. After the announcement, the Chinese government accused the South Korean move of a politically motivated decision taken under U.S. influence. Chinese accusation supported the idea that the U.S. influence on South Korea, which has been accelerating since 2010 due to the deployment of U.S. ground forces in South Korea and the increased military cooperation between the two states, affected the decision regarding deployment of THAADs.[281] Hence, the Chinese government immediately opposed the deployment decision, mainly due to two reasons. First, THAAD's protection would not be enough for South Korea since the North Korean missiles would fly at lower altitudes than its detection range thanks to the relatively short distance between the two Koreas' capitals.[282] Furthermore, such an inefficient deployment would also cause a regional arms race between the two Koreas and other states due to security dilemma. Second, China argued that the real motivation behind the deployment was to allow United States to gather intelligence through spying on such territories and thereby allow U.S. to increase its influence on the Korean peninsula against China since THAAD's radar covered some parts of Chinese and Russian territories.[283]

However, the security considerations of the Chinese government did not necessarily address real issues. According to Robert C. Watts (2018), China's first claim was not relevant because although THAAD systems would not work efficiently in the distance between two capital cities, its range could protect southern parts of South Korea. China's second claim was also irrelevant because United States did not need THAAD to gather intelligence about the Chinese military; it already had sensors for

[281] Robert S. Ross, "What Does the Rise of China Mean for the United States?" in *The China Questions: Critical Insights into a Rising* Power, ed. Jennifer Rudolph and Michael Szonyi (Cambridge, Harvard University Press, 2018), 83-4*;* Brianni Lee, "THAAD Deployment in South Korea: Militarism Leading to Political Regression," *Harvard International Review* 38, no. S1 (Winter 2017): 34-37. www.jstor.org/stable/26445597.

[282] "Decision to deploy THAAD in S. Korea triggers controversy over regional tension, effectiveness," *China Daily,* July 08, 2016, http://www.chinadaily.com.cn/world/2016-07/08/content_26020451_2.htm; Robert C. Watts, ""Rockets' Red Glare": Why Does China Oppose THAAD in South Korea, and What Does It Mean for U.S. Policy?" *Naval War College Review* 71, no. 2 (Spring 2018): 79-80, www.jstor.org/stable/26607047.

[283] Watts, ""Rockets' Red Glare"," 80-4; Lee, "THAAD Deployment in South Korea," 34-37; Ross, "What Does the Rise of China," 83-4.

surveillance.[284] Besides, United States assured that the THAADs were not technically capable of having a large effect on China; instead, the missiles were deployed solely against the nuclear threat posed by North Korea with pure defensive purposes. U.S. officials even commented on the issue and stated that if it cannot lead to North Korea's denuclearization, the deployment of THAADs in South Korea was not necessary at all. Obama administration also tried to discuss the issue more openly with Chinese officials; however, China did not provide a positive response to such efforts.[285]

Although there was no consensus in between, both United States and China were right in their considerations. United States perceived North Korea's enormous spending on ICBM development projects and its nuclear capability as a threat to itself and its allies in the Asia-Pacific region.[286] On the other hand, the three-dimensional conflict over the deployment of THAAD in South Korea has gradually accelerated since the only controller of the THAAD systems was the United States but not South Korea in terms of using technology and information. Any increase in the U.S. military existence in the region was a potential threat for China.[287]

After the impeachment of South Korea's former president Park Geun-hye in late 2016, Moon Jea-in was elected as the new president in May 2017. Although he consistently opposed the Park administration's decision to allow the deployment of U.S.-made THAAD missiles in South Korea during his electoral campaign and afterward, newly elected President Moon reversed his decision not to operationalize the deployed systems after North Korea's second successful ICBM test in July 2017. Chinese authorities criticized Moon's reversal arguing that South Korea would eventually regret such deployment decision. However, the South Korean leader had his legitimate reasons to proceed with the system's further installment. Firstly, Kim Jong Un has never assumed a positive attitude towards South Korean leader Moon's relatively open

[284] Watts, ““Rockets’ Red Glare”,” 84-98.

[285] Tony Bertuca, "State official: THAAD Deployment to Korea in Limbo amid Chinese Concerns." *Inside the Army* 28, no. 18 (May 9, 2016): 12, https://www.jstor.org/stable/10.2307/24840726; Lee, "THAAD Deployment in South Korea,” 34-37.

[286] Fishman, Peter Harrell and Elizabeth Rosenberg, *A Blueprint for New Sanctions*, 1-2; Lee, "THAAD Deployment in South Korea,” 34-37.

[287] Lee, "THAAD Deployment in South Korea,” 34-37.

policies against North Korean nuclearization and animosity. Secondly, North Korea continued its nuclear testings in the region even after Moon was elected as president and although he was open to communication with North Korea. Under such circumstances, South Korea also speeded up its ballistic missile system development project and the operationalization process of the THAADs.[288]

North Korea conducted another nuclear test four days after Moon was elected as the new president of South Korea. The tested missile was capable of hitting Guam, where U.S. deployed an operational THAAD to provide regional security and stability.[289] Therefore, the role played by the United States in the meantime also needs to be considered. Although the deployment was planned to start in summer 2017, batteries of the system had already arrived in South Korea by March of the same year. Such early delivery raised Chinese concerns that the THAADs would have been operationalized before the expected date. The United States decided to start the deployment before the scheduled time due to its concern over former president Park's impeachment, a supporter of American-made THAAD deployment in South Korea, and her replacement with an opponent, President Moon. Even though the U.S. concern over two opposite presidents was proved unnecessary throughout the time, the possibility of missing the deployment opportunity was powerful enough to speed up the delivery process.[290]

Aggressive responses from China followed the completed deployment of THAADs, and those responses changed the relationship between United States, South Korea and, China. Economic enforcements included the Chinese ban on tourism to South Korea and South Korean cultural products such as K-pop concerts.[291] China also refused to

[288] Ross, "What Does the Rise of China," 83-4; Kingston Reif, "Moon Reverses THAAD Decision," *Arms Control Today* 47, no. 7 (September 2017): 30, www.jstor.org/stable/90012871; Watts, ""Rockets' Red Glare","82-3; Kelsey Davenport, "North Korea's New Missile Tests South Korea," *Arms Control Today* 47, no. 5 (June 2017): 27-8, https://www.jstor.org/stable/10.2307/90009422.

[289] "THAAD Endo/Exoatmospheric Intercept Capability," Lockheed Martin Product Card, Lockheed Martin, accessed June 11, 2020, https://www.lockheedmartin.com/content/dam/lockheed-martin/mfc/pc/thaad/mfc-iamd-thaad-pc.pdf; Davenport, "North Korea's New Missile," 27-8.

[290] Kim Jiyoon, John J. Lee, and Kang Chungku, *Changing Tides: THAAD and Shifting Korean Public Opinion toward the United States and China* (Seoul: Asan Institute for Policy Studies, 2017), 1, www.jstor.org/stable/resrep08159; Watts, ""Rockets' Red Glare"," 82-94.

[291] Jiyoon, Lee, and Chungku, *Changing Tides: THAAD*, 1; Watts, ""Rockets' Red Glare"," 82.

cooperate with the U.S. to constrain the nuclear activities of North Korea.[292] According to some analysis, the conflict has served North Korea's interest since South Korea's relations with its most important security partner, the U.S., and trade partner, China, have been strained. It was also interpreted that South Korea needs the support of China and the United States at the same time in order to balance North Korea's nuclear capabilities in the region.[293]

After it was understood that THAAD deployment would likely bring negative political consequences, the South Korean government sped up the South Korean indigenous missile defense system development project named Korea Air and Missile Defense (KAMD) system. KAMD is a broad air defense system that includes U.S.-made sea-based missile defense system Aegis and Patriot missile systems.[294] Originally, the desire for a Korean-made air defense system has arisen during Iranian missile attacks in the Gulf War in the 1990s.[295] In the twenty-first century, KAMD was projected to operate independently from the United States in order not to offend or trigger any state in the Asia-Pacific region.[296] For that aim, KAMD and THAADs in South Korea would work in coordination without any integration in between. The deployment of THAADs aims to support the Korean air defense system instead of making South Korean defense infrastructure integrate into the U.S.-directed regional Ballistic Missile Defense (BMD) system.[297] However, according to U.S. officials, the regional security against North Korean missiles would only be achieved if the American and South

[292] Ross, "What Does the Rise of China," 83-4.

[293] Ross, "What Does the Rise of China," 83-4; Kim Jiyoon, John J. Lee, and Kang Chungku *A Shrimp Between Two Whales? Koreans' View of the US-China Rivalry and THAAD* (Seoul: Asan Institute for Policy Studies, 2017), 2, www.jstor.org/stable/resrep08165.

[294] Christy Lee, "Experts: Combine U.S., S. Korean Missile Systems to Boost Defense vs. North," *Voice of America*, May 26, 2019, https://www.voanews.com/east-asia-pacific/experts-combine-us-s-korean-missile-systems-boost-defense-vs-north.

[295] Hwee Rhak Park, "The Ballistic Missile Defense Construction Strategies of South Korea and Japan: Self-reliance versus Cooperation with the U.S.," *Journal of International and Area Studies* 25, no. 2 (December 2018): 88, https://www.jstor.org/stable/10.2307/26909945; Sukjoon Yoon, "Stopping North Korean Missiles: An Alternative to THAAD," *The Diplomat*, July 18, 2016, https://thediplomat.com/2016/07/stopping-north-korean-missiles-an-alternative-to-thaad/.

[296] Sebastien Roblin, "Meet South Korea's Very Own Killer S-300 Air Defense System," *The National Interest*, February 24, 2019, https://nationalinterest.org/blog/buzz/meet-south-koreas-very-own-killer-s-300-air-defense-system-45477.

[297] Yoon, "Stopping North Korean Missiles"; Lee, "Experts: Combine U.S., S. Korean".

Korean air defense systems are fully integrated. By doing so, the time required for data sharing and analysis would be significantly reduced.

The South Korean reluctance to fully cooperate with the United States in terms of defense industrialization has two main reasons. Firstly, South Korea does not root for an overall involvement in a regional security alliance that also includes Japan due to the two states' shared historical enmity. According to South Korean perception, full integration of KAMD to the U.S.-led regional missile defense alliance also means full integration with Japan.[298] Secondly, public opinion in South Korea supports the self-reliant status of South Korean defense industrialization, especially when it comes to developing air defense systems. South Korean activists protested against the deployment of U.S.-made THAADs during President Park's term and after. They also opposed any cooperation with the U.S. to develop KAMD on the ground that such cooperation would harm national independence by making KAMD a part of the American global BMD network. As a result, the South Korean government could not cooperate with the United States, which was seen as the "sole leader in modern BMD construction" in the development of KAMD to improve the system and speed up the development process.[299]

Even though South Korea cannot cooperate with the United States in the development of KAMDs, it uses certain U.S.-made defense products to improve its air defense systems' capabilities and also cooperates with the U.S. in other relevant areas. South Korea's government plans to receive new U.S.-made Patriot Advanced Capability-3 (PAC-3) Missile Segment Enhancements (MSE) to upgrade its already existing batteries of PAC-2, which were procured from Germany. Such PAC-3 MSEs will consist of the inner layer of KAMD. South Korea aims to create a multilayered defense capability by upgrading U.S.-made Patriot and Korean-made KM-SAM medium-range surface-to-air missile system (also known as Cheolmae II). The development of Korean long-range surface-to-air missile (L-SAM) also aims to contribute to the South Korean air defense system. L-SAMs are projected to be completed by 2022, and when

[298] Lee, "Experts: Combine U.S., S. Korean."

[299] Park, "The Ballistic Missile Defense Construction," 88.

fully operationalized, they will *complement* U.S.-made THAADs in South Korea instead of being fully integrated.[300]

A weak missile defense system would not be sufficient for South Korea's protection as long as North Korea remains a global nuclear threat that also feeds its historical enmity against its southern neighbor. Many U.S. officials argue that integration between U.S. and South Korean systems is necessary since KAMD is not technically capable of protecting the whole country. Also, bilateral cooperation for the development of an effective air defense system should be a priority for the South Korean government since the altitude ranges of different missile defense systems possessed by South Korea do not effectively cover the whole airspace of the country.[301]

In the earlier stages of the KAMD's development process, South Korea considered collaboration with several producer states, including Israel, the Netherlands, and even Russia, in addition to the United States. Defense companies of Israel, the United States, and the Netherlands submitted proposals for South Korea's missile warning radar system, which was planned to be integrated into South Korean indigenous Air and Missile Defense-Cell (AMD-Cell) that is to become an integral part of KAMD in 2009.[302] Later in the same year, Israel's bid won the tender with two EL/M-2080 Block B "Green Pine" radars.[303] Two additional Israeli Green Pine radars for the KAMD program to track missiles coming from China and North Korea were to be ordered by South Korea nine years after the initial procurement.[304] Furthermore, South Korea considered a defense industry collaboration with Russia under KAMD program in

[300] Jeff Jeong, "South Korea moves to kick its missile defense shield up a notch," *Defense News*, 2019, August 14, https://www.defensenews.com/global/asia-pacific/2019/08/14/south-korea-moves-to-kick-its-missile-defense-shield-up-a-notch/; Roblin, "Meet South Korea's Very Own Killer"; "Pining for Control: South Korea's KAMD National Ballistic Missile Defense System & M-SAM Surface to Air Missile," *Defense Industry Daily,* January 02, 2018, https://www.defenseindustrydaily.com/pining-for-control-south-korea-buying-abm-radars-amd-c2-05290/.

[301] Yoon, "Stopping North Korean Missiles"; Lee, "Experts: Combine U.S., S. Korean"; Park, "The Ballistic Missile Defense Construction," 102.

[302] Jung Sung-ki, "3-Way Race for Ballistic Missile Warning Radars," *The Korea Times*, May 19, 2009, http://www.koreatimes.co.kr/www/news/nation/2009/05/113_45215.html.

[303] "Pining for Control," *Defense Industry Daily*.

[304] "South Korea to Order Israeli Green Pine Radars worth US$292 million," *Defense World*, November 27, 2018, https://www.defenseworld.net/news/23753/South_Korea_to_Order_Israeli_Green_Pine_Radars_worth_US_292_million#.Xy6ZaRMzbdQ.

2014 to escape from the U.S.-led regional missile defense network, which also included Japan. The acquisition of Russian S-300 and S-400 missile systems and Russian transfer of technology for South Korean indigenous defense production was also being discussed during the negotiations about cooperation, even though the procurement was not concluded.[305]

The South Korean case demonstrates the United States and China's political power statuses with their effects on global cooperation activities in terms of defense industrialization. South Korean decision to speed up the development of its indigenous air defense system and alliance building with states other than the U.S. to not offend any state in the Asia-Pacific region -namely China- after the THAAD crisis demonstrates that China is a significant power both in regional and global terms. Furthermore, it would be a more rational decision for a regional power to cooperating with China instead of competing against it. The risks of competing against China, an ally of North Korea with advanced nuclear capabilities, would be highly severe for South Korea; hence it chooses domestic production with limited cooperation with states Israel and Russia. Therefore, one might argue that even though the U.S. is a superpower for global defense industrialization, the rise of China is significant enough to make regional powers with defense industry supplier statuses re-evaluate their alliances with the U.S.

The South Korean case is also significant for twenty-first century's defense industrialization according to Buzan and Wæver's theory. One might argue that China's efforts to exclude the United States from the South Korean security and defense industrialization process serves as an example for RSCT. China might be adopting an aggressive approach towards South Korea in order to maintain regional security by leaving out the United States, which it sees as a threat. According to the RSCT, each East Asian actor involved in this case belongs to the same RSC, namely East Asian RSC; therefore, one might expect to see a smooth cooperation between those states because of being in the same region. However, a more detailed evaluation of the case would demonstrate different results since China does not support restriction efforts for

[305] "Pining for Control," *Defense Industry Daily*.

North Korea’s ballistic missile testing activities. Therefore, one might also suggest that the primary motivation behind China's aggressive behavior towards South Korea regarding its security decision is not maintaining regional security but forcing the United States for a competition by using South Korea. Such position fits into the Neorealist explanation. However, it can also be argued that the patterns of historical enmity and amity re-enter the stage when one considers the South Korean reluctance to engage in a multinational defense industrialization program led by the United States, which also involves Japan.

It is also essential to evaluate the case with respect to Buzan and Wæver's framework. South Korea and the United States have been each other's ally for a long time; therefore, it can be expected to see another defense industrialization partnership for the production of a missile defense system between the two states, given the fact that the United States is also the superpower of global defense industrialization process with strong technological know-how. However, the case demonstrates that South Korea and the United States' perception regarding China's power status is so intense that the cooperation cannot stand as a valid option between the two states when China is involved in the case, thereby created a conflict. Lastly, one might also suggest that China's approach towards South Korean defense industrialization does not aim to prevent South Korea from cooperating with *any* producer since Israel has been an official production partner of the KAMD system, and Russia has been considered as one. The reason behind China’s aggression and South Korea’s hesitation regarding the foreign production partner can be accepted as the potential involvement of superpower United States in the process.

5.3. Western Competition in Space: Galileo Program

The cooperation and competition in global defense industrialization also include space-related activities. States have been increasingly investing in satellite programs since the Cold War period because the ability to detect a specific location is vital, especially during crises and times of high tension. The pioneers of satellite development programs were the United States and the Soviet Union, with their satellite systems named Global Positioning System (GPS) and Global Navigation Satellite

System (GLONASS). Both countries initiated their satellite projects to cope with the uncertainties of the Cold War.[306]

Having a higher acceptance rate by a larger group of users of the two systems due to its more precise timing, GPS was launched for the first time in 1978 by the U.S. Department of Defense.[307] The system is owned by the United States, fully controlled by the U.S. Air Force, and it provides precise positioning, navigation, and timing (PNT) services to its users free of charge. Although in its early phases the GPS has been used solely for military purposes, it was opened for commercial use such as "air, road, rail and marine navigation, precision agriculture and mining, oil exploration, telecommunications, electronic data transfer, construction, recreation and emergency response."[308] in 2000.[309]

The European dissatisfaction with the dependence on the U.S.-made GPS dates back to 1994. Europeans considered the widely accepted and U.S.-controlled GPS as a breach of sovereignty because the embeddedness of GPS in the world was significant to affect even ordinary people's daily lives. Furthermore, full control of the U.S. on the system and its practical ability to degrade or even shut down the system's signals in times of crisis was creating a security gap for the Europeans. As a result of those security concerns and after a brief discussion about building an independent Global Navigation Satellite System (GNSS), the Galileo program was officially initiated in December 2001 by the cooperation of the European Union (E.U.) and European Space Agency (ESA).[310]

---

[306] Roftiel Constantine, *GPS and Galileo: Friendly Foes?* (Montgomery: Air University Press, 2008), 25, www.jstor.org/stable/resrep13860.10.

[307] "GPS Satellite History," GPS III, Lockheed Martin, accessed June 13, 2020, https://www.lockheedmartin.com/en-us/products/gps.html; Amy Butler, "U.S. Officials Discuss Galileo Issues," *Inside the Air Force* 13, no. 16 (April 19, 2002): 6-7. www.jstor.org/stable/24789937.

[308] "Clinton Acts to Make GPS More Accurate," *The New York Times,* May 02, 2000, https://www.nytimes.com/2000/05/02/technology/clinton-acts-to-make-gps-more-accurate.html.

[309] "What is GPS?" GPS: The Global Positioning System, GPS, accessed June 13, 2020, https://www.gps.gov/systems/gps/; David Braunschvig, Richard L. Garwin, and Jeremy C. Marwell, "Space Diplomacy," *Foreign Affairs* 82, no. 4 (July – August 2003): 158, https://www.jstor.org/stable/20033655.

[310] Constantine, *GPS and Galileo*, 21-3; Daniel Clery, "Europe's Answer to GPS Could Be a Boon for Research," *Science* 310, no. 5756 (December 23, 2005): 1893, www.jstor.org/stable/3843086; Lt Col. Scott W. Beidleman, "GPS vs Galileo: Balancing for Position in Space," *Astropolitics* 3, no. 2 (2005): 117-9, https://doi.org/10.1080/14777620590964535.

Europeans wanted to initiate the Galileo program due to multiple technical and political reasons. Firstly, GPS's commercial features were not developed to meet European civilian requirements since it was built to meet military needs. Its focus has always been on developing better service for the military. Secondly, even though the United States has been Europe's reliable security provider during Cold War, the European desire to provide its own defense became apparent since the global environment has started to change from the 2000s onward. With an independent space program, Europeans aimed to have a free space to conduct their long-desired high-technology projects and contribute to overall European security. Lastly, Europeans aimed to take advantage of the expanding GNSS market against their American and Russian rivals by developing an independent European-led satellite program.[311]

The European claim about Galileo's superiority to GPS has been shaped around the former's commercial focus. Although Galileo could serve better for the public's requirements thanks to its commercial design, it could also be used in the military domain with improvements and design changes. Galileo also aimed to provide more precise data than GPS until planned GPS upgrades were realized. Furthermore, while challenging United States in the GNSS market as an independent design, Europeans aimed to benefit Galileo by improving their industrial capability and providing jobs. Although Galileo was not planned to be served free of charge to all users as GPS (users who wish to have more precision would be subject to a fee), Europeans considered Galileo's features as everything that everybody looked for in such a system to buy.[312]

Satellite navigation had become a hot topic for the United Nations Security Council (UNSC) when the European Commission officially approved the Galileo program in 2002. Globalization of the issue was also reflected in the United States' serious concerns over the interoperability of European Galileo with its GPS. In the initial phases of negotiation, United States demonstrated a medium-level resistance against Galileo's development by stating that Europe did not need an alternative system when the U.S. already provided GPS for free. The U.S. resistance was motivated by multiple

[311] Beidleman, "GPS vs Galileo," 119.

[312] Beidleman, "GPS vs Galileo," 119-35; Braunschvig, Garwin, and Marwell, "Space Diplomacy," 156-63; Butler, "U.S. Officials Discuss Galileo," 6-7.

technical and political reasons. First, the United States was concerned about possible signal interference and overlay between the two systems. Second, the global economic share of GPS could have shrunk if Galileo becomes widely used in the world due to Europe's large sphere of influence. Third, the Galileo could turn into a challenge for the U.S. in the event of conflicting interests of European states and the U.S.[313] However, United States accepted Galileo's autonomy and collaborated with the Europeans for interoperability of the systems after "the Agreement on the Promotion, Provision and Use of Galileo and GPS Satellite-Based Navigation Systems and Related Application" was signed between the two parties in 2004.[314]

The cooperation was beneficial for the United States and European Union due to multiple reasons. Firstly, Europeans needed to focus on technological collaboration activities that would enable the successful integration of the two systems since the future marketing success of Galileo depended on its interoperability with widely used GPS.[315] Secondly, the United States' increasing need for alliances in its war against global terrorism after the 9/11 attacks affected its cooperation decisions regarding space-related industrialization activities. Thirdly, the involvement of non-European states such as the United States in the project was beneficial in order to cope with possible budgetary shortages in funding the project.[316]

Along with the United States, many other states also demonstrated interest in being a Galileo satellite program partner. The primary aim of such global cooperation efforts was interpreted as European states' technical considerations to ensure the market penetration through interoperability of Galileo with other already-existing systems to spread European political and technological know-how. However, financial considerations about dealing with budgetary shortages also played a significant role in deciding global cooperation for the project. Therefore, even though the Galileo satellite system is completely developed by the E.U., Europeans considered

[313] Beidleman, "GPS vs Galileo," 120-41; Braunschvig, Garwin, and Marwell, "Space Diplomacy," 156-63; Butler, "U.S. Officials Discuss Galileo," 6-7.

[314] Sheng-Chih Wang, *Transatlantic Space Politics: Competition and cooperation above the clouds* (New York: Routledge, 2013), 128; Constantine, *GPS and Galileo*, 29; Beidleman, "GPS vs Galileo," 120.

[315] Beidleman, "GPS vs Galileo," 146; Braunschvig, Garwin, and Marwell, "Space Diplomacy," 161-3.

[316] Wang, *Transatlantic Space Politics*, 123-4.

cooperation with third countries such as United States, Russia, China, India, Israel, Canada, South Korea, Brazil, Ukraine, Morocco, Norway, Switzerland, Argentina, Saudi Arabia, Mexico, and Australia;[317] and they signed collaboration agreements with third parties such as Russia, China, India, Israel, Canada, South Korea, Ukraine, Morocco, Norway, and Switzerland at different phases of the program. Many of the collaboration agreements with such partner states were signed to pursue technological cooperation opportunities.[318]

Russian interest in Galileo, which was negotiated during the bilateral summit between European Commission and Russia on 29 May 2002, was mostly related to Russia's technical interoperability desire between GLONASS and its European rival in order to stay active in the competition.[319] On the other hand, Chinese involvement in the program was politically motivated. Europe initially decided to cooperate with China to strengthen the project by making it more international. The Chinese celebrated that decision on the ground that partnering in the Galileo space program would strengthen the Chinese position against the United States' dominance in space-related projects. However, United States supported a more global participation model involving other non-European U.S.-allies instead of China due to its security concern over the Chinese involvement. U.S. was concerned that Chinese involvement in the project would enable it to access the upgraded GPS frequency, and that would create a security gap for the U.S.[320] In the end, the Chinese government decided to process with its own

[317] Gustav Lindström and Giovanni Gasparini, "The Galileo Satellite System and its Security Implications," *Institute for Security Studies Occasional Paper* no. 44 (April 2003): 22, https://www.iss.europa.eu/sites/default/files/EUISSFiles/occ44.pdf; Beidleman, "GPS vs Galileo," 140; Constantine, *GPS and Galileo*, 39-40; "The European satellite positioning system Galileo," National Land Survey of Finland, accessed August 5, 2020, https://www.maanmittauslaitos.fi/en/research/interesting-topics/galileo; Geoffrey Van Orden, "U.K. still has the right to take part in Galileo," *Financial Times,* March 29, 2018, https://www.ft.com/content/b6a61ba8-30fb-11e8-b5bf-23cb17fd1498.

[318] "E.U. and Russia sign agreement on closer collaboration in space," The Community Research and Development Information Service, European Commission, accessed August 4, 2020, https://cordis.europa.eu/article/id/25334-eu-and-russia-sign-agreement-on-closer-collaboration-in-space; "China, E.U. jointly develop Galileo Project," *People's Daily Online,* accessed August 4, 2020, http://en.people.cn/200309/20/print20030920_124595.html; "India Signs Agreement to Take Part in Europe's Galileo Satellite Project," *Space Daily,* September 07, 2005, https://www.spacedaily.com/news/gps-euro-05w.html; "The Perils (and Pearls) of Galileo," *Inside GNSS,* accessed January 01, 2006, https://insidegnss.com/the-perils-and-pearls-of-galileo/; "Canada Participating in European Galileo Satellite Navigation Program," Government of Canada, accessed June 15, 2020, https://www.canada.ca/en/news/archive/2003/10/canada-participating-european-galileo-satellite-navigation-program.html; "South Korea Signs Galileo Cooperation Agreement," *Via Satellite,* accessed September 12, 2006, https://www.satellitetoday.com/uncategorized/2006/09/12/south-korea-signs-galileo-cooperation-agreement/; "E.U. space programmes: Galileo, EGNOS and Copernicus," Documents considered by the Committee on 18 April 2018, U.K. Parliament, accessed August 05, 2020, https://publications.parliament.uk/pa/cm201719/cmselect/cmeuleg/301-xxiii/30104.htm.

[319] Lindström and Gasparini, "The Galileo Satellite System," 29.

[320] Wang, *Transatlantic Space Politics*, 125-6.

national satellite system named Beidou instead of collaborating in a European satellite program.[321]

As another non-European participant state of the program, Canada has started negotiating cooperation terms in the early 2000s. The main concern of the Canadian government was related to intellectual property and security of the system,[322] and such cooperation was considered as a path full of new opportunities for the Canadian space industry. The agreement signed in October 2003 aimed to provide commercial benefits such as "air and sea traffic control, ground transportation, crime prevention, urban planning, agriculture and fisheries"[323] for Canadians. South Korea also joined the program in 2006 by signing a collaboration agreement. The South Korean participation in the Galileo space program aimed to provide R&D in scientific stages of the project.[324] Similarly, the Israeli participation in 2013 also aimed to provide software and hardware supply along with R&D contribution to the program, thereby strengthening the strategic, security, and economic cooperation of the two parties.[325] Lastly, Ukraine and Morocco's participation through collaboration agreements also aimed to materialize each party's cooperation desires in the fields of R&D, production, business development, trade, certification, and security.[326]

Norway and Switzerland's collaboration agreements dated 2010 and 2014 respectively, allowed two states to be extensively involved in the program. Norway is able to compete for the bids through its national defense industry companies, and additionally, it provides space for the Galileo satellite system's infrastructure.

---

[321] Craig Mellow, "Why Europe Wants its Own Satellite Navigation Program," *Air & Space Magazine*, April, 2012, https://www.airspacemag.com/space/the-galileo-project-4098287/.

[322] "E.U. and Canada agree to extend satellite navigation cooperation," The Community Research and Development Information Service, European Commission, accessed June 15, 2020, https://cordis.europa.eu/article/id/16043-eu-and-canada-agree-to-extend-satellite-navigation-cooperation.

[323] "Canada Participating in European Galileo," Government of Canada.

[324] "E.U. and Republic of Korea sign Galileo agreement," The Community Research and Development Information Service, European Commission, accessed June 15, 2020, https://cordis.europa.eu/article/id/26326-eu-and-republic-of-korea-sign-galileo-agreement.

[325] David Shamah, "Israel becomes major partner in E.U. satellite program," *The Times of Israel,* October 22, 2013, https://www.timesofisrael.com/israel-becomes-major-partner-in-eu-satellite-program/.

[326] "Cooperation Agreement on a Civil Global Navigation Satellite System (GNSS) between the European Community and its Member States and Ukraine," Treaties Office Database, European Union External Action Service, updated April 24, 2014, https://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=9224; "Morocco joins Galileo," The Community Research and Development Information Service, European Commission, accessed August 5, 2020, https://cordis.europa.eu/article/id/26813-morocco-joins-galileo.

Switzerland exercises her involvement by providing financial support and bid for contracts. Also, Switzerland is responsible for the manufacturing of certain parts of the satellites.[327]

On the other hand, the Indian case demonstrated the political side of collaboration in space-related activities as in China's case. Although the Indian participation has been a desired aspect for the Galileo program since 2004 considering India's high-technology capabilities, it could not make the final decision to be a program partner due to the fact that its problematic neighbor China also planned to be involved in the development phase. Since the cooperation in the development phase involved sharing strategic location data with other partners, including China, India did not become the official partner until China was excluded from the project on the ground that data sharing would cause serious national security threats.[328]

While enjoying its leadership in the Galileo space program, European Union has been attaching great importance to the control of the project to prevent unauthorized third-party access to strategic data as the number of partner states increased over the years.[329] Even though the program faced with financial and schedule related difficulties such as unexpected budget exceedings and delays; and it could not use the time between the development of Galileo and the launch of GPS III (upgraded and more advanced version of GPS) efficiently to market Galileo globally as the best-available-GNSS; the interoperable system Galileo has been in use since the end of 2016.[330]

Galileo satellite program as an independent European initiative is significant for this study because it demonstrates the patterns of cooperation between superpower United

---

[327] "E.U. space programmes: Galileo, EGNOS and Copernicus," Documents considered by the Committee on 18 April 2018.

[328] Ciaran McGrath, "E.U. Snub: India to join European satellite Project Galileo which Britain is Locked Out Of," *Express*, April 27, 2019, https://www.express.co.uk/news/world/1119329/india-galileo-space-sector-brexit-news-theresa-may-eu; Rajeev Deshpande, "India may quit EU-led GPS Project," *The Times of India*, October 16, 2006, https://timesofindia.indiatimes.com/india/India-may-quit-EU-led-GPS-project/articleshow/2172710.cms; "Galileo family expands as E.U. ad India sign agreement," The Community Research and Development Information Service, European Commission, accessed June 15, 2020, https://cordis.europa.eu/article/id/24384-galileo-family-expands-as-eu-and-india-sign-agreement.

[329] Constantine, *GPS and Galileo*, 39-40; Lindström and Gasparini, "The Galileo Satellite System," 22.

[330] "Frequently Asked Questions," European GNSS Galileo FAQ, European Global Navigation Satellite Systems Agency, accessed June 13, 2020, https://www.gsa.europa.eu/european-gnss/galileo/faq#GAL; "GPS III: The Future of Global Positioning Systems," GPS III, Lockheed Martin, accessed June 13, 2020, https://www.lockheedmartin.com/en-us/products/gps.html; Commission of the European Communities, *Progress report on the GALILEO research program as at the beginning of 2004* (Brussels: COM, 2004), 2-19, http://aei.pitt.edu/95585/1/galileo.pdf; Constantine, *GPS and Galileo*, 40; Beidleman, "GPS vs Galileo," 135; Butler, "U.S. Officials Discuss Galileo," 6-7.

States, great power European Union and other involving regional powers. European states' regional cooperation against the threat of U.S. dominance can also be accepted as an example for the application of Buzan and Wæver's RSCT. Even though European states largely benefitted American assistance and support to re-build their defense industries during the Cold War period, they gradually developed a tendency to value their regional European integration and security more than they valued their cooperative relationships with the United States as Europe improved in terms of defense industrialization and moved to the top in the major arms suppliers list. However, U.S. and E.U. eventually came to terms on cooperation since their bilateral collaboration in terms of defense industrialization in space promised more benefits than the possible risks. For both parties, the risks associated with relative gains would have been more severe if they had not cooperated.

In addition to what has been discussed above, Europeans' cooperation with the United States can be analyzed from two different perspectives. First, United States might have decided to cooperate with Europeans out of technological and economical concerns regarding either more extensive R&D opportunities or greater profits. Second, United States might have *penetrated* to the European RSC out of its securitization concerns against a new threat coming from the neighboring RSC: China. Such interpretation can also be applicable in the Chinese case since China as a great power, tried to penetrate to the European RSC through cooperation in the Galileo program. Therefore, it can be interpreted as an indication of the inter-regional characteristic of major powers' cooperation due to the penetration principle for defense industrialization activities.

Galileo satellite program was also significant to demonstrate the cooperative behaviors of great powers and regional powers. While Canada, South Korea, Israel, Ukraine, Morocco, Norway, and Switzerland as third-party regional powers, mainly concentrated on the technical opportunities of cooperation in a European initiated satellite program; Russia and China as great powers and India as a regional power were mostly concerned about possible political outcomes of such collaboration. Therefore, by looking at the two alignments above, one might argue that even in the high technology defense industrialization processes with full of political, economic, and technological opportunities and where cooperation promises significant advantages, states are affected by the power politics and balance of power.

5.4. Cooperation Under the Water: Australia's Future Submarine Program

As the power balance shifted throughout the time, Asia-Pacific theatre witnessed multiple events that affected regional and global defense industrialization politically, economically, and technologically. The Australian submarine deal with its complex history demonstrated all three dimensions in the 21st century.

Australia initiated an indigenous submarine program in 1985 by establishing ASC Pity Ltd. (formerly known as Australian Submarine Corporation) to design and manufacture a fleet for the use of the Royal Australian Navy (RAN). Six Collins-class submarines that were produced were delivered to the RAN between 1996 and 2003. Although they have been used extensively in the RAN maritime operations, the need for a larger fleet consisting of twelve submarines has been emphasized by the Australian government since 2009 because the size of the fleet was not sufficient to conduct concurrent operations.[331] In addition to that, an increased number of submarines was necessary for Australia to maintain national defense, regional stability and international order.[332] Understanding the significance of the contribution of submarines to Australian deterrence and regional defense strategy, the Australian government initiated the future submarine program (FSM) aiming to build a regionally dominant conventional submarine capability while being cost-effective in production and affordable in sales.[333]

One of the options discussed for the future of FSM was off-the-shelf procurement due to its relatively promising position on delivery times and reduced unit cost. However, such an option required buying additional submarines to forward position for fueling purposes since ready-to-be-sold submarines typically could not travel long distances

[331] About us: Timeline(website), Australian Submarine Corporation, accessed June 17, 2020, https://www.asc.com.au/about-us/timeline/; Harry White, "Asia's Submarine Capability," in *The Submarine Choice: Perspectives on Australia's Most Complex Defence Project* (Canberra: Australian Strategic Policy Institute, 2014), 50, www.jstor.org/stable/resrep04207.8; Andrew Davies, *Keeping our heads below water: Australia's future submarine* (Canberra: Australian Strategic Policy Institute, 2008), 1-2, www.jstor.org/stable/resrep03882.

[332] Tatsumi, *US-Japan-Australia Security Cooperation*, 83-4.

[333] Australian Strategic Policy Institute, *The Submarine Choice: Perspectives on Australia's Most Complex Defence Project* (Canberra: Australian Strategic Policy Institute, 2014) 10-1, www.jstor.org/stable/resrep04207.5; Benjamin Schreer, "Alliance Considerations," in *The Submarine Choice: Perspectives on Australia's Most Complex Defence Project* (Canberra: Australian Strategic Policy Institute, 2014), 47, www.jstor.org/stable/resrep04207.7.

as Collins-class submarines.[334] Furthermore, unique Australian requirements such as high endurance and range made it almost impossible to proceed with an off-the-shelf procurement option since any existing submarines could not meet such requirements.[335]

Another option was indigenous production of the new generation submarines, as in the former Collins-class experience. The proponents argued that the indigenous production would not cost as high as expected because cost expectations of other favored options were not realistic. Additionally, coordination of an indigenous project would have been easier due to the non-existent different standards or language barriers. Another motivation behind supporting indigenous production was not to leave the control of a significant national capability, which was planned to be carried on almost for fifty years, to a foreign government.[336]

Since Australia has never indigenously designed a submarine and such production would have required high numbers of skilled workforce and a consequent increase in costs;[337] collaboration as the third option was considered between the Australian government and Japan, Germany, and France based on their proposals. In the initial phases of the FSM program, the Australian government favored Japan due to multiple reasons. Firstly, Japan has been launching new boats every year since 1989, which enabled its defense industry to maintain and improve conventional submarine building capabilities.[338] Secondly, although collaboration with Europeans could increase Australia's technological capabilities through the transfer of know-how, cooperating with the Japanese could also help maintain stability against power shifts in the Asia-Pacific region. Lastly, even if Japan could not meet Australia's unique requirements in

[334] Davies, *Keeping our heads below water*, 3.

[335] Australian Strategic Policy Institute, *The Submarine Choice*, 20; Davies, *Keeping our heads below water*, 3.

[336] Peter Briggs, *Why Australia Should Build its own Submarines* (Canberra: Australian Strategic Policy Institute, 2015), 2-6, www.jstor.org/stable/resrep04071.

[337] Australian Strategic Policy Institute, *The Submarine Choice*, 24.

[338] Andrew Davies and Benjamin Schreer, *The Strategic Dimension of 'Option J' Australia's Submarine Choice and its Security Relations with Japan* (Canberra: Australian Strategic Policy Institute, 2015), 1-2, www.jstor.org/stable/resrep04075; Davies, *Keeping our heads below water*, 4.

the first place, modification of existing Japanese submarines could serve as an alternative midway.[339]

Opponents of what is known as the *J-Option* argued that collaboration with Japan should not have been a valid option since Japan did not have the experience of exporting military technology due to its isolation period, which allowed Japan to sign defense industry collaboration contracts only with the United States.[340] Additionally, Japanese submarines had "less payload, endurance and mobility" than the Australian Collins-class submarines.[341] Possible language barriers to be faced in cooperation with Japanese manufacturers were also reasons why there was an opposition to J-option.[342]

Alongside being closer allies since the beginning of the new century, Japan and Australia have gradually increased their cooperation, especially in security-related issues regarding the Asia-Pacific region since 2007.[343] Australia saw Japan as the right partner for maintaining regional security and stability because cooperation with like-minded nations gained importance as the American power in the region declined. The other alliance options were also not as powerful as Japan or were extensively distracted by other threats.[344] However, it is essential to explain the surrounding conditions of the region at this stage, which led Australia to primarily consider regional stability and security.

Asia-Pacific region has been increasingly complex and uncertain due to the explosion of Chinese economic and military power in the twenty-first century. After China has risen as a great power against the United States, the two states' power competition has been intensified. Such infuriating competition created the danger of disturbing the

[339] Briggs, *Why Australia Should Build*, 2.

[340] Davies, *Keeping our heads below water*, 4; Hayley Channer, Andrew Davies, and Peter Jennings, *Something New Under the Rising Sun: Expanding Australia-Japan Defence Cooperation* (Canberra: Australian Strategic Policy Institute, 2013), 1-2, www.jstor.org/stable/resrep04030; Davies and Schreer, *The Strategic Dimension*,2.

[341] Briggs, *Why Australia Should Build its own Submarines,* 2.

[342] Davies, *Keeping our heads below water*, 4.

[343] Amy King, "Japan in Australia's 2016 Defence White Paper," *Security Challenges* 12, no. 1 (2016): 177, www.jstor.org/stable/26465727; Davies and Schreer, *The Strategic Dimension*, 2-3.

[344] Davies and Schreer, *The Strategic Dimension*, 3-8; Channer, Davies, and Jennings, *Something New Under*, 3.

regional status-quo.[345] The significance of building closer alliances has been increased as the regional power status has started to shift in favor of China; therefore, United States started to focus on strengthening its allies in the region through cooperating on security-related areas, such as defense industrialization. Even though the United States was already operating militarily in the region, strong bilateral cooperations between its Asia-Pacific allies were essential for *China's re-balancing*. For that purpose, U.S. supported Australia and Japan to cooperate in defense industry-related activities such as Australia's next-generation submarine program against improved submarine development capabilities of the Chinese.[346]

From the U.S. perspective, a trilateral submarine development project to be conducted by Australia, Japan, and the United States was significant since such collaboration also would have guaranteed that the end product was interoperable and compatible with U.S. military standards and equipment.[347] Such a multi-partnered project could provide cost-benefits to the participants since each country has been facing defense budget cuts and dealing with increased maintenance costs.[348]

For the Japanese defense industry, the collaboration was a great opportunity because their constitution has prohibited Japanese arm transfers in the 1970s. However, even though Japan could not sell the defense products it has been producing over the years, it could preserve its defense production capabilities while gaining more Western technological know-how since Japan was conducting licensed production of the United States. Furthermore, the Japanese prime minister Shinzo Abe has been emphasizing the necessity of easing the constitutional prohibition[349] on the Japanese

[345] White, "Asia's Submarine Capability," 50-2; Channer, Davies, and Jennings, *Something New Under*, 1.

[346] Kym Bergmann, et al., *Japan Versus Europe The Quest to Build Australia's Future Submarine* (Canberra: Australian Strategic Policy Institute, 2016), 11, www.jstor.org/stable/resrep04096; Davies and Schreer, *The Strategic Dimension*, 3; Tomohiko Satake, "Japan-Australia Relations: Toward Regional Order-Building," in *Japan's Global Diplomacy: Views from the Next Generation* (Washington: Stimson Center, 2015), 22-6, www.jstor.org/stable/resrep10937.7; Australian Strategic Policy Institute, *The Submarine Choice*, 21; Schreer, "Alliance Considerations," 46-8; Channer, Davies, and Jennings, *Something New Under*, 3-4.

[347] Channer, Davies, and Jennings, *Something New Under*, 6

[348] Tatsumi, *US-Japan-Australia Security Cooperation*, 79.

[349] Article 9 of the Japanese Constitution prohibited maintaining Japanese land, sea, and air forces since such possession had war potential.

defense industry since he was elected in order to open the way for exports of defense items. Even though his intentions have been criticized and objected by the domestic environment, the Abe administration could convince the Japanese to resort to a minimum level of self-defense when there is no alternative way to protect Japan's survival. Such relaxation enabled Japan to build greater cooperation with Australia since it attached greater confidence to the Japanese defense industry with the ability to export its products.[350]

Australia, being in close security partnership with Japan since the Joint Declaration on Security Cooperation was announced in 2007, favored Japan for an extended period before making the final decision regarding the biggest procurement of its history.[351] Even though Australia had a more moderate attitude towards Chinese leadership in the region due to their intensive trade relationships compared to Japan, it still valued Japanese partnership in sustaining regional stability in Asia-Pacific.[352]

Along with their technical considerations, opponents of J-Option also argued that signing the FSM deal with Japan could harm the Chinese-Australian political and economic relationships, and it may lead China to *retaliate* Australia for engaging in such collaboration. Besides, the agreement could lead to *re-militarization* of Japan, which conflicted with the peaceful orientation of Australians. However, the former argument was rejected due to the lack of Chinese response to such agreement possibility while the latter was supported to a certain extent.[353]

The Australian government announced its final decision to cooperate with the French and Swedish partners in 2018 even though Japan has been putting great effort into the FSM selection process.[354] The collaboration agreement to produce twelve attack-class

[350] Tatsumi, *US-Japan-Australia Security Cooperation*, 80; Davies and Schreer, *The Strategic Dimension*, 8; White, "Asia's Submarine Capability," 51; Channer, Davies, and Jennings, *Something New Under*, 1-2.

[351] Tatsumi, *US-Japan-Australia Security Cooperation*, 83-5.

[352] Satake, "Japan-Australia Relations," 24; King, "Japan in Australia's 2016," 178-9.

[353] Davies and Schreer, *The Strategic Dimension*, 3-5; Bergmann, et al., *Japan Versus Europe*, 4-5.

[354] About us: Timeline(website), Australian Submarine Corporation.

Barracuda Block 1A submarines[355] was signed with France in February 2019.[356] The reason for Australia's rejection of the offer by Japanese Mitsubishi Heavy Industries was two-folded. From the technological point of view, Japanese Soryu-class submarines' lifespan was shorter, their accommodation size was smaller and transit speed was lower compared to French Barracuda submarines. Also, Australians were concerned about the submarines' integration into U.S. weaponry, which was seen as problematic in the J-Option.[357] On the other hand, political reasons for such decision which supported the idea that submarines are highly political defense equipment[358] were multiple. Firstly, since it was the former prime minister of Australia, Tony Abbott, who supported Japan in the first place, Japan has lost its advantage over other bidders after he was replaced with the new president. Secondly, unlike Japan, the new president used the fact that France agreed to conduct the major work in Australia, thereby helping to create jobs for the Australians as a political argument against the Japanese offer. Thirdly, as stated before, Japanese inexperience in foreign sales largely affected the Australian decision. Lastly, the United States' support for Japan has not continued until the end of the partner selection process.[359] In the initial phases, United States was supporting Japan since it did not want to see U.S.-made defense equipment to be integrated into a European-made submarine. However, as time progressed, the U.S. administration has dropped such attitude and declared that the decision was a sovereign concern of Australia; therefore U.S.-Australian alliance would not be affected by Australia's decision regarding its production partner selection.[360]

At the beginning of the selection process, the Australian government requested the bidders to provide "options for designing and building the boats overseas, in Australia,

[355] Diesel-electric derivative of Barracuda nuclear attack submarines.

[356] Franz-Stefan Gady, "Australia, France Sign $35.5 Billion Submarine Contract," *The Diplomat,* February 11, 2019, https://thediplomat.com/2019/02/australia-france-sign-35-5-billion-submarine-contract/.

[357] Franz-Stefan Gady, "Why Japan Lost the Bid to Build Australia's New Subs," *The Diplomat,* April 27, 2016, https://thediplomat.com/2016/04/why-japan-lost-the-bid-to-build-australias-new-subs/.

[358] Australian Strategic Policy Institute, *The Submarine Choice*, 16.

[359] Gady, "Why Japan Lost the Bid."

[360] Franz-Stefan Gady, "Did Japan Just Lose the Bid to Build Australia's New Subs?" *The Diplomat*, April 21, 2016, https://thediplomat.com/2016/04/did-japan-just-lose-the-bid-to-build-australias-new-subs/.

or through a ‘hybrid approach” along with cost predictions, expectations about legal procedures and information regarding their “willingness to share technical data."[361] However, although Japan agreed to share technical data with Australia,[362] it did not agree to transfer “sensitive military technology” to Australia when cooperating in the production of the submarines.[363] On the other hand, France offered to build a big portion of the submarines in Australia while conducting initial design both in Australia and France through a hybrid approach.[364]

Although there were multiple political reasons behind Australia's final decision regarding the FSM program, technological concerns seem to outweigh with respect to the context. One of Australia's major considerations as a regional power in the partner selection process was to maintain regional stability and not disturb it because of such partnership building. As a regional power, Australia could focus on its technological considerations and requirements to further improve its national defense industrialization since China, as a great power in the region, which has an excellent capability to affect regional security, did not approach the process with a negative attitude.

From the regional perspective, it can be argued that the cooperation was achieved smoothly since there was not a security threat posed by a significant power such as China, although it was one of the main concerns of Australia in the initial phases of the bidding process. Without the interference and aggression of a great power located in the same RSC, namely East Asian RSC, Australia had the opportunity to assess the political, economic, and technological benefits projected to be delivered by the possible partners. In addition to that, United States was not involved in the process more than it would have if China interfered in the decision. Therefore, one might argue

[361] Franz-Stefan Gady, “3 Countries Asked to Bid for Largest-Ever Australian Defense Contract,” *The Diplomat*, February 24, 2015, https://thediplomat.com/2015/02/3-countries-asked-to-bid-for-largest-ever-australian-defense-contract/.

[362] Claire Corbett, “Australia’s $60 billion submarine dilemma,” *The Monthly*, August 2014, https://www.themonthly.com.au/issue/2014/august/1406815200/claire-corbett/australia’s-60-billion-submarine-dilemma#mtr.

[363] Franz-Stefan Gady, “Will Japanese Subs Be Built in Australia?” *The Diplomat*, March 31, 2015, https://thediplomat.com/2015/03/will-japanese-subs-be-built-in-australia/.

[364] Franz-Stefan Gady, “Australia, France Close to Finalizing Agreement for $36 Billion Submarine Fleet,” *The Diplomat*, December 13, 2018, https://thediplomat.com/2018/12/australia-france-close-to-finalizing-agreement-for-36-billion-submarine-fleet/.

that the Australian submarine decision was rationally motivated compared to many other decisions made in the scope of global defense industrialization activities of the twenty-first century.

The Australian submarine case serves as an example for both cooperation and competition in terms of global defense industrialization activities, although the result appears to be peaceful cooperation. The superpower United States' support for Japan against the two European states in the early stages of selection process can be accepted as a form of competition influenced by problems of relative power and relative gains. Similarly, United States' silent approval for the European option and the final partnership decision are examples of defense industry cooperation between major powers.

Lastly, the Australian submarine production partner decision also demonstrates that defense industrialization also has an inter-regional characteristic; if not, it is not bound by regional borders due to the possibility of penetration, especially when there is more than one great power on the stage. The regions are not shaped geographically for super and great powers, when it comes to global defense industrialization.

CHAPTER 6

CONCLUSION

This study has argued that states' power statuses influence their cooperative behaviors towards other states in terms of the twenty-first century's global defense industrialization activities, which have been shaped according to the regionalism principle.

Both Liberal and Realist theories accept that the world is an anarchical environment where survival is not supplied by an overarching authority above states and non-state actors. However, the two theories' interpretation of the system's self-help characteristic affects their perception of global defense industrialization. Liberal understanding of global defense industrialization is more actor-oriented. It refers to cooperation as the most rational behavior for states to survive in the self-help anarchical world order. Especially the Neoliberal institutionalist support for cooperation in defense industrialization activities derives from its exclusive focus on the economic dimension of the defense industrialization process. Realist understanding is more system-oriented than its Liberal opponent. It only foresees circumstantial cooperation and argues that competition is the dominant behavior of states in the same anarchical environment. Furthermore, Neorealism adds the political dimension to the equation. As a result, Neorealists argue that states tend to compete with each other in terms of global defense industrialization activities, and they only cooperate under certain circumstances. Lastly, according to Neorealist understanding, relative powers, possible relative gains of states, and the possibility of cheating are the factors that states consider before engaging in cooperation activities.

Throughout history, the primary controlling actor has been *the state* most of the time, although there have been times when private enterprises had the upper hand in the processes of global and national defense industrialization. States cooperated in the process of global defense industrialization to materialize their political, economic, and technological objectives. Cooperation in the process of global defense industrialization has been growing on the basis of 'learning the hard way.' States used to be inclined to apply sharper measures against possible threats and uncertainties of cooperation in defense industry activities, such as withdrawing from collaborations in the early stages of global defense industrialization. However, as time progressed, they continued to be involved in collaboration activities while being on the safe side by pursuing alternative protection methods such as requiring export licenses or having the arms embargo card ready in hand. Therefore, states managed to preserve their national securities while also improving global cooperation in terms of defense industrialization.

Cooperation and interdependence reciprocally improved as the world slowly entered into the globalization era after the Cold War. Eventually, those two features have become the characteristics of globalization. Such characteristics were also reflected in the process of global defense industrialization; however, neither cooperation nor interdependence between states was solely affected by the economic desires of states as Neoliberal institutionalist understanding would claim. Instead, states extensively cooperated in global defense industrialization projects. They gradually became interdependent to materialize their political objectives such as alliance building while still pursuing their economic objectives such as cost reduction. The globalization period also encouraged states to engage in collaboration activities in terms of defense industrialization to improve their technical skills and gain technical superiority over their opponents. Cooperation is what states and non-state actors should choose as their main behavioral pattern according to Neoliberal institutionalist ideology due to the integrated and interdependent characteristics of the anarchical world order. On the other hand, Neorealist understanding argues that cooperation is a valid option even under anarchy only when pursued to balance a threat and develop more outstanding technological capabilities. Both ideologies accept the need for cooperation, at least to

a certain extent; however, neither understanding is sufficient to explain the process of defense industrialization.

Although the early periods of defense industrialization process can be explained by a pure Realist perspective due to few factors such as high state protectionism and control over the production, non-existent inter-state trade, and lacking non-state actors; the historical background demonstrates that a pure Realist or Neorealist explanation fails to satisfy political, economic and technological developments that occurred throughout the time. A need for a more economy-oriented and inclusive understanding became visible since states, and non-state actors have started to conduct inter-state defense industrialization activities, especially from the beginning of the twentieth century. However, Liberal understanding also fails to fully explain global defense industrialization since it values economic features of the system more than the political ones. Therefore, this study used an eclectic approach involving political and power-related explanations of Realist ideology with technological and economy-related explanations of Liberal understanding to investigate the cooperative behaviors of states in terms of the global defense industrialization process.

The dominant leader of the global defense industrialization process has been the United States with a strong industrial and technological know-how; therefore, it has been the most desired cooperation partner in defense industry collaboration projects for many states. The defense industry partnership with the U.S. was considered highly promising to provide political, economic, and technological benefits to both sides of the partnership due to its leadership position in the global defense industrialization process. United States' partner states, which seek to collaborate with it in defense industrialization projects, mostly enjoyed their political alliances with the U.S. in the twenty-first century’s competitive global environment where the balance of power has been re-shaped. Therefore, the United States' superpower status, which is based on Buzan and Wæver's framework, is also valid for the process of global defense industrialization as of the end of the twenty-first century's second decade.

Historical developments demonstrated that the global defense industrialization process has been transitioning for a long time. It started at a national phase and progressed

through the globalization phase. As of 2020, it is in the global-regional phase, as Gilpin suggested with his regionalist theory of New Economic Geography (NEG). Therefore, adopting a regionalist approach to analyze the twenty-first century's global defense industrialization process is necessary. That is why Buzan and Wæver's framework and theory with three simple modification are also incorporated in this study to support the eclectic approach for analyzing the global defense industrialization process in the twenty-first century. Nevertheless, it is necessary to explain the contribution of Buzan and Wæver's theory and framework to this study before presenting the modifications.

First, Neoliberal institutionalism and Neorealism as genres of Liberalism and Realism are useful theories for explaining the concepts of security and defense industrialization due to their focus on economic, political and military features of the anarchical world order. However, there is still a need for one more dimension. The twenty-first century's defense industrialization process has been transforming into a regional version. Although Neorealists such as Gilpin accept the significance of regions to a certain extent; Neorealism's extensive focus on state actor (similarly, Liberalism's extensive focus on globalization) requires the incorporation of another perspective to this study in order to better analyze the defense industrialization process. Also, regionalism associated with Neorealism remains incapable of explaining regional amity and enmity patterns that affect the global defense industrialization process since Neorealists such as Gilpin are inclined to attribute regionalism to historical coincidence and interpret the relations within those regions according to simplistic core-periphery models. Similarly, Neoliberal institutionalist theory is more useful in demonstrating *regionalization* of defense industrialization activities derived from economic concerns instead of explaining regional defense industry cooperation and competition activities that are being carried out due to enmity and amity patterns. Hence, this study incorporated Buzan and Wæver's Regional Security Complex Theory and their framework of 1+4+x plus Neorealist and Neoliberal institutionalist explanations to investigate the cooperative behaviors of major powers in terms of their defense industrialization activities, which is accepted as a sub-title of securitization.

Second, Buzan and Wæver's framework of 1+4+x, which is reflected on their RSCT, is explanatory for analyzing the effects of power statuses of major defense industrializers on their cooperative behaviors addressing other actors of the anarchical world order. The classification of powers developed by Buzan and Wæver's framework also applies to the twenty-first century's global defense industrialization process, including superpower, great power, regional power statuses, and insulator states. The insulator state concept is one of the factors that makes RSCT uniquely useful for explaining cooperative state behavior in the globalization period's defense industrialization process.

When Buzan and Wæver's Regional Security Complex Theory (RSCT) is applied to the process of global defense industrialization, one would not be mistaken to argue that global defense industrialization process' all four main regions include the United States as the superpower at the core due to the scope of its ability to influence other actors through penetration. In addition to that, all the peripheral states in the form of great powers or regional powers are located around the core. The United States at the core is a default setting of global defense industrialization's regions based on its power status and its primacy in the global defense industrialization process; however, in the regions where there is one or more great power, the U.S. shares the core with that great power, such as Asian supercomplex and European RSC. All four main regions include regional powers, which happen to be strong allies of the U.S. in terms of defense industrialization activities. On the regional level, when the superpower is added to their regional defense industrialization processes because of the cooperation projects conducted in between, those regional powers move to the peripheral position around the United States. Regional enmities or amities of those powers influence the relationship patterns each region possesses.

The first modification to Buzan and Wæver's framework and RSCT to analyze the global defense industrialization process in the twenty-first century would be classifying Russia as a member of the Asian supercomplex instead of a member of the European supercomplex. Russia has been developing stronger amity patterns addressing major powers that belong to the former region, such as China and India.

The second modification can be made concerning the framework's great powers. Considering Japan's current position and power status compared to other states in the great powers group, it should be classified as a *regional power* instead of a great power in terms of the global defense industrialization process in the twenty-first century.

In the Turkish case of F-35 and S-400, it was demonstrated that Turkey wanted to use its regional power status by combining it with Russia's great power status through defense industrialization collaboration to change the United States' course of action regarding its political decisions. Turkey aimed to balance the United States by cooperating with a great power located in a close region when its initial cooperative move addressing its Western allies for protection against a severe threat and enmity from the neighboring region was not reciprocated. Furthermore, Turkey even faced serious retaliation and sanctions from the superpower's side due to the political climate. Such difficulties that Turkey has been experiencing in all three defense industrialization projects can be attributed to its insulator status as well. It can be argued that Turkey *had to* seek options to balance the United States since its regional allies in the European supercomplex did not support it because Turkey does not belong to a region. Therefore, it can be argued that Turkey became more concerned about the political dimension of its defense industry collaboration activities both in the F-35 and S-400 cases by the time and as it could not get what it wanted from its Western allies. Once Turkey played the Russian card on the United States, it could not easily return being solely concerned about the cooperation's economic or technological gains. In both cases, the partner states were significant powers of the anarchical world order, both possessing significant resources in terms of their national defense industrialization processes, which happened to be holding a historical grudge and enmity towards each other.

The last modification of Buzan and Wæver's framework and theory concerns China. Although Buzan and Wæver categorize China as a great power, the case studies in the globalization period demonstrated that China is *more than* a great power due to the scope of its sphere of influence and balancing behavior of the United States.

United States' retaliating move addressing Turkey for collaborating with Russia can be interpreted as U.S.' perception of Russia as a security threat in terms of global security concerns and defense industrialization process since Russia has re-built its national defense industrialization strength after the dissolution of the Soviet Union and re-claimed its global great power status if not superpower status. It can be interpreted that the U.S., as the superpower of global defense industrialization, continues to support the idea of a strong and unified European RSC along with the insulator Turkey next to the region against Russian enmity and any possibility of Russian penetration to the region. However, as the consequence of power politics between the superpower and great power Russia, Turkey appears to be the only one who ended up with the biggest damage that severely affected its national defense industrialization process.

The European hesitation to continue defense industry cooperation with Turkey in the Turkish indigenous defense industrialization programs is also a demonstration of the U.S.'s political, economic, and technological superpower status in the global defense industrialization process and the historical amity between U.S. and USSR which was strengthened during the Cold War years. Russia's existence can explain why European states prefer jeopardizing their defense industry cooperation with Turkey instead of disturbing their alliance with the United States. European states choose to bandwagon with the United States against Turkey because balancing the U.S. or staying neutral would have served the Russian interest in this case. That would be a significant risk to be handled by Europeans when the U.S.' power position, the patterns of amity between the two poles, and Europe's regional securitization and global defense industrialization process are considered.

The Russian dimension of the story makes the conflict even more complicated for the Europeans since Russia positions itself as a security challenge and defense industry competitor against the European ally United States. It can be argued that Europeans were not forced to decide to preserve their alliance either with the United States or with Turkey; instead, Europeans needed to decide between 'U.S.' and 'Russia plus Turkey.' The sharp difference in the polarization of the powers involved in this case

can be accepted as evidence for the statement that Russia does not belong to the same region as the European states due to their regional securitization behaviors.

The two Koreas' case about possession of a missile defense system in the Asia-Pacific region is briefly about the regional power South Korea's excessive effort to avoid cooperation with the superpower United States to eventually not upset China, which is a great power and a serious security threat in the region. Even though South Korea possesses defense industrialization capabilities highly sophisticated for a regional power, and it has been enjoying the defense industry collaboration activities with the United States for many years; China has made South Korea hesitate to continue large scale defense industry cooperation with the U.S. through presenting the possibility of a regional conflict and its consequences to the powers involved in the case.

The Korean case is similar to the Turkish case on the ground that the power of superpower has been challenged by great powers in both cases. However, the Korean case's distinction derives from the fact that the Chinese challenge *succeeded* in making the U.S. take a step backward. According to Buzan and Wæver's theory and framework, the analysis of the Korean case demonstrates that the reasons for such success are two-folded.

First, the regional power South Korea is not an insulator state, and it *belongs* to a RSC, unlike Turkey. Therefore, South Korea can be expected to have more specific and rigid regional security concerns since the RSC it belongs also has China, North Korea, and Japan, which do not demonstrate patterns of amity but patterns of enmity towards South Korea.

Second, unlike Turkey, South Korea is located in a region that also involves the most prominent challenger of the U.S. in the twenty-first century; hence for the United States, the risks of jeopardizing its alliance with Turkey are not as great as South Korea. In addition to that, United States has been considering China as a more serious threat and challenge than Russia in the globalization age; therefore, the U.S. sees the risks of losing a regional power and ally to China far greater than losing it to Russia. The U.S.' perceptions about the two great powers are related to the relative powers of

Russia and China. Similarly, the difference between United States' behavior towards two regional powers - retaliation in the Turkish case and agreeing not to insist in the South Korean case- can be attributed to the power statuses of the two great powers in hand. From the perspectives of great powers in both cases, it can be argued that both Russia and China have been enjoying the damaged U.S. influence on the regional powers Turkey and South Korea because of their political moves. However, the results are significantly different according to the case in hand. Turkish cooperation with Russia created a U.S. enmity towards Turkey, which was reflected in the U.S. government's consecutive restrictive applications on the Turkish defense industrialization process. However, the South Korean decision to continue with other production partners did not cause a U.S. enmity towards South Korea. It can also be argued that such difference was caused by the fact that the Turkish move was a competitive behavior against the U.S. and the South Korean move was a cooperative decision to find a midway between China and the U.S.

Although Buzan and Wæver's RSCT categorizes China as a great power for security-related considerations and arguably in terms of the global defense industrialization process, this study takes a step further and suggests that China is less than a superpower yet more than a great power due to its ability to influence other great powers and regional powers *as well as the superpower* compared to other actors in the category of 'great powers.' Therefore, it is necessary to identify China as a transitioning power between the 'great' and 'super' statuses. Such identification is also supported by the superpower United States' responses in the following two cases of this study.

The last two global defense industrialization cases of this study focused on the effects of great and regional power statuses in defense industry collaboration activities. The European decision to initiate an independent satellite program was motivated by the excessive control and power that the United States possessed in global satellite systems, which were interpreted as a breach of sovereignty by the Europeans. Alongside the political motivation to prevent Americans from further breaching their sovereignty, Europeans also wanted to materialize their economic objectives by having a share in the newly emerging satellite navigation market.

Even though the United States has been the most dominant actor in the world of satellite navigation systems since the 1970s, mostly due to the fact that it has been providing the U.S.-made GPS free of charge, the European insistence and confidence to build a similar yet independent system were based on European Union's perception about itself as a great power which is politically, economically and technologically capable of being a serious competitor to the superpower. Historically, European states -and European Union since the 1990s- have been United States' greatest ally in the European continent to step up against Russia since the end of World War II; hence Europe's strategic value for the U.S. has been too high. As the Soviet Union of the Cold War period and the Russian Federation of the twenty-first century, Russia has been a security threat for the United States, which cannot be easily controlled by international legal restrictions or sanctions. The Russian unmanageableness can be attributed to its specific indigenous skills, such as an advanced defense industry capable of meeting domestic demands and influencing other states by exporting indigenously produced defense items. Furthermore, although the relations of Europeans and the United States has been dominated by historical amity and there was an intense U.S. penetration to the European region in terms of Europe's securitization and defense industrialization, the U.S. dominance on satellite systems demonstrated a serious potential to damage such amity and shift it towards enmity, especially since the Cold War period. Therefore, it would not have been a rational decision for the U.S. to turn its disagreement on building an independent European satellite system into a great conflict because a strong alliance with the Europeans is needed as long as Russia continues to pose a security threat for the U.S.

In addition to that, the United States needs more and powerful allies with great defense industrialization capabilities to maintain its leadership and superpower status both in terms of global security and defense industrialization since China has risen as an even more serious threat compared to Russia in the Asian supercomplex. The consequences of a Chinese penetration to the European region can damage the superpower status of the U.S. by making its sphere of influence smaller without the European RSC. Therefore, the case demonstrated that neither U.S. nor the Europeans did not take such risks and continued with a cooperation decision due to their political concerns as well

as economic and technological ones. However, the case also demonstrated that even though Europeans and the U.S. eventually cooperated in the development of Galileo satellites, Europeans valued their regional integration and security more than their alliance with the U.S. The European insistence on creating and maintaining regional identity can be attributed to the patterns of regional amity among European states; even that means positioning itself against the superpower.

The Galileo case is also significant for demonstrating China's increased power and influence as a great power against the United States. The possibility of a Chinese partnership in the independent European satellite development project against the United States' GPS had a triggering effect on the U.S. to express its disapproval for such collaboration. Even though Galileo is a global project with a wide range of partner states, any state's involvement possibility other than China, not even Russia, had the United States worried about possible security threats. That can be interpreted as another indication that China is a more serious threat to the United States than its historical opponent Russia due to China's increasing relative power in the globalization era.

Europeans played the 'independency' card when initiating the Galileo satellite program without worrying about the possible political, economic, or technological sanctions and restrictions from the U.S. because Europeans were aware of their historical value for the United States. Furthermore, the U.S. objection eventually simmered down since the European move was not an aggression towards the U.S. In addition to that, European Union was not aiming to *retaliate* the United States by building its own satellite system as in the Turkish case. In terms of defense industrialization, the European Union's Galileo case is similar to South Korea's KAMD development case. In both cases, sovereign states with certain defense industrialization capabilities choose to process with indigenous development projects instead of continuing their extensive cooperation projects with the United States. In the South Korean case, the number of possible cooperation partners is limited, and they have to be chosen wisely not to trigger any political conflict in the region; however, European states had more opportunities when selecting their production partners. Such difference between South

Korean and European defense industrialization processes can be explained by referring to those actors' regional and great power statuses thereby their relative powers. It can be suggested that the importance of a great power is higher than the importance of a regional power for a superpower in the globalization period since Buzan and Wæver's framework suggests that great powers have a larger sphere of influence compared to regional powers. Therefore, United States would be more careful when interfering with European states' decisions regarding defense industrialization cooperation projects in comparison to South Korea's, because upsetting relations with the Europeans has a greater potential of triggering a chain reaction against the U.S. Hence, it can be argued that the relative power of European states is far greater than South Korea, and that is one reason why European states have the opportunity of acting more freely in their defense industry collaboration decisions.

When the Galileo case is analyzed from the regional cooperation perspective, it can be argued that there are two *imaginary* groups in Europe's cooperation partners. One group consists of strong-U.S.-allies such as Canada, South Korea, Israel, Ukraine, Morocco, Norway, and Switzerland, and the other group consists of non-U.S.-allies such as Russia and China or not-*primary*-U.S.-allies such as India. While the first group of states was more inclined and motivated to cooperate with the Europeans in a satellite project, which also includes the U.S. as a partner, the second group of states demonstrated a more competitive behavior in the same project. The Russian involvement in the project aimed to protect its satellite system against the newly developed European system, thereby acting proactively and building an alliance with the Europeans before the U.S. builds the same alliance. Similarly, the planned Chinese involvement in the project was also motivated by a possible Chinese superiority against the U.S. in the satellite navigation market through cooperation with the Europeans. The Indian case is different in terms of the actor who has been addressed by the project member's discomfort. In the Indian case, a regional power risks a defense collaboration opportunity with a great power to avoid possible security threats and enmity posed by another great power in its own region. The most distinctive difference between the imaginary groupings of strong-U.S.-allies and others is that, while members of the first group can extensively focus on economic and technological

benefits of their partnership because the political benefits are *default* advantages of defense industry collaborations with the U.S.; the members of the second group are primarily concerned about their political gains when engaging in defense industry collaboration projects. Members of the second group usually consider other possible economic and technological benefits once the aforementioned political gains are guaranteed and/or disappeared. This is also a result of the U.S.' relative power position in the global defense industrialization process perceived by its allies and others.

The 'superpower effect' on the process of global defense industrialization in the last case study is relatively low compared to the previous cases. According to Buzan and Wæver's framework combined with its modified version, it can be stated that the Australian FSM program is a defense industrialization case where a regional power selects its production partner between a great power and a regional power. Australia's final decision to proceed with France instead of Japan in the Australian submarine development project can be interpreted as evidence that Japan is not a great power in the globalization period's securitization concerns and defense industrialization process due to two main reasons. First, France could outrun Japan in the partner selection process of the Australian FSM program because Japan is not integrated into the *global* defense industrialization process due to the constitutional restrictions, although it is a global high-technology giant and capable of demonstrating those high-tech skills in its national defense industrialization process. Therefore, it can be argued that Australia's cooperation decision was affected by France's relative power as opposed to Japan's, concerning their global defense industrialization capabilities. Second, the possibility of cooperation between China's good neighbor Australia and Japan does not trigger China to retaliate, although an intense enmity characterizes the historical relationship patterns of Japan and China. Therefore, it can be argued that either China does not accept Japan as a great power, or China sees itself as more than a great power regionally strong enough not to worry about cooperation between Japan and Australia.

States which are able to demonstrate a certain level of interdependency and interconnectedness are awarded more excellent political, economic, and technological opportunities in the twenty-first century since globalization requires the adaptation of

such features. Therefore, Japan is not considered global-spirited by the other states that are well integrated into globalization, even though it could maintain and improve its high-technology-making skills during the isolation period from the global defense industrialization process. Japan's problematic position derives from its inability to provide the required level of interdependency or interconnectedness with its national defense industrialization process.

Unlike the Turkish and Korean cases, any of the parties involved in the Australian case do not demonstrate aggression towards each other to turn their defense industrialization collaboration into a regional or global conflict. Even though the opponents of J-Option initially expected to face Chinese aggression or at least a certain level of opposition as a response to a possible Australian-Japanese defense industry collaboration project, the Chinese non-responsiveness to the collaboration possibility helped to maintain the regional security by not triggering a U.S. response to such aggression that would otherwise result in a broader penetration to the region. As an outcome of maintaining such a non-conflictual and competition-free environment, Australia could focus on its economic and technological considerations in the FSM program. Similar to the imaginary grouping of strong-U.S.-allies in the case of Europe's Galileo collaboration program, Australian authorities were free to choose the most optimal option which serves greatest to their economic considerations and technological requirements once the political considerations were taken out of the equation. For Australians, that option was France.

The regional power Australia is a significant ally for the superpower United States especially in a region that also includes China as a great power and a newly emerging serious threat for the U.S. However, one might argue that the United States feels more comfortable about Australia's future in the region than South Korea's since Australia has good political and economic relations with China; hence, it is not a subject of random Chinese aggression or enmity. In addition to that, even though North Korean enmity in the form of global nuclear threat covers the whole Asian supercomplex, South Korea would more easily be subject to a possible North Korean missile strike before Australia due to their problematic history and patterns of enmity. Therefore, it

can be argued that Australia as a regional power in the Asia-Pacific region is not in serious danger as South Korea, and that is why the United States is more worried about South Korea than Australia. Finally, Australia's neutral and rather constructive position in regional and global security issues can be considered one reason why China, as a rising great power of the globalization period, did not respond aggressively to its plans to cooperate with Japan in a global defense industrialization project.

Each case study demonstrates that states' global power statuses influence their cooperative behaviors in terms of global defense industrialization activities. Globalization as the dominant feature of the twenty-first century has made cooperation an inevitable way of interaction for states and non-state actors. In the global interdependent and interconnected environment, states feel the urgent need to cooperate with each other even in their defense industrialization activities, which is expected to be subject to a comprehensive state protection due to its connection with states' national security considerations, as suggested by Gilpin's Strategic Trade Theory. Furthermore, states that already possess certain defense industrialization capabilities cooperate to maintain and improve such capabilities with relatively less resources such as money and time. In the globalization age, those 'capable' states also build defense industry alliances to improve their political positions, even when the cooperation is taking place in a rather conflictual and uncertain environment.

Both historical background and case studies demonstrated that the twenty-first century's defense industrialization process has been in a transition phase from the global to regional levels. Cooperation and competition in terms of global defense industrialization occur within the regions of the world, which are shaped according to the patterns of amity or enmity between the neighbors. In addition to that, cooperation *and* competition occur between those regions by penetration of the superpower or a great power. States and regional alliances formed by states conduct cooperative or competitive inter-*state* defense industrialization activities; however, they often prefer to involve in multilateral and regional projects to increase their political, economic, and technological advantages. Even when they prefer not to be involved in such multilateral structures, their cooperative and competitive behaviors and the responses

they receive from the global environment are affected by the characteristics of the regions they belong to.

This study described the regions mentioned above and their members by modifying Buzan and Wæver's RSCT and 1+4+x framework and combining it with Gilpin's regionalist theory of NEG along with a Neoliberal Institutionalist background. It is suggested that the world consists of four main regions and each region has the superpower United States at the core. Those regions also consist of great powers and regional powers around the core as peripheral states.

In the Asian supercomplex, there is a 'transitioning' great power, China, between the core and periphery, and the Asian supercomplex's peripheral actors are great power Russia, regional powers Japan, South Korea, Australia, and India. The Middle East and Africa RSCs' only major peripheral actor concerning its defense industrialization capabilities is the regional power Israel. European supercomplex is *not* a supercomplex but an RSC only consisting of the Western European RSC of Buzan and Wæver's RSCT. Therefore, the only peripheral actor of the new European RSC is the great power European Union itself. Turkey remains an insulator state between the new European RSC and the RSCs in the Middle East and Africa without involving in neither of the regions. Lastly, one periphery included in this study as a member of RSCs of America is the regional power Canada.

To sum up, it can be argued that the most distinctive cooperation and competition patterns in the process of global defense industrialization have been observed between certain major powers of the anarchical world order. Those major powers created a group that is a customized and modified version of Buzan and Wæver's framework. This new and customized framework can be numerically modeled as *'1+1+2+7'*: one superpower United States; one 'great-to-super' transitioning power China; two great powers European Union and Russia; and seven regional powers, Japan, India, South Korea, Turkey, Australia, Israel, and Canada. Those eleven major actors' power statuses, affected by the regions they belong to or do not belong to, have been influential in their cooperative behaviors in the scope of global defense industrialization since the end of the Cold War period. It appears that such an influence

is likely to be an even more growing concern of those states in their future defense industrialization collaboration activities.

REFERENCES

Aljazeera. “Turkey: S-400 purchase ‘not a preference but a necessity.’” July 13, 2019. https://www.aljazeera.com/news/2019/07/turkey-400-purchase-preference-necessity-190713055039155.html.

American Academy of Arts & Sciences. “Limiting European Arms Exports.” *Bulletin of the American Academy of Arts and Sciences* 45, no.3 (December 1991): 9-12. doi:10.2307/3824336.

Anderson, Philip W., Kenneth J. Arrow and David Pines. *The Economy as an Evolving Complex System*. Florida: Westview Press. 1988.

Australian Strategic Policy Institute. *The Submarine Choice: Perspectives on Australia’s Most Complex Defence Project*. Canberra: Australian Strategic Policy Institute, 2014. 7-31. www.jstor.org/stable/resrep04207.5.

Australian Submarine Corporation. About us: Timeline (website). Accessed June 17, 2020. https://www.asc.com.au/about-us/timeline/.

"Back Matter." *Foreign Affairs* 57, no. 5 (1979): A-29. www.jstor.org/stable/20040332.

Bağcı, Hüseyin and Çağlar Kurç. “Turkey’s strategic choice: buy or make weapons?” *Defence Studies* 17, no.1 (2017): 38-62. http://dx.doi.org/10.1080/14702436.2016.1262742

Battistelli, Fabrizio. "Arms Production in Europe: The Sociology of the Arms Race." *Bulletin of Peace Proposals* 13, no. 4 (1982): 323-27. www.jstor.org/stable/44480967.

Becker-Jakob, Una, Gregor Hofmann, Harald Müller and Carmen Wunderlich. "Good International Citizens: Canada, Germany, and Sweden." In *Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice*, edited by Müller Harald and Wunderlich Carmen, 207-45. Athens: University of Georgia Press, 2013. www.jstor.org/stable/j.ctt46n7ks.12.

Bekdil, Burak Ege. “Pakistan extends Turkey’s deadline to deliver T129 helos.” *DefenseNews*, January 14, 2020. https://www.defensenews.com/global/europe/2020/01/14/pakistan-extends-turkeys-deadline-to-deliver-t129-helos/.

Beidleman, Lt Col. Scott W. “GPS vs Galileo: Balancing for Position in Space.” *Astropolitics* 3, no. 2 (2005): 117-161. https://doi.org/10.1080/14777620590964535.

Bergmann, Kym, Peter Briggs, Andrew Davies, Julian Kerr, Chris Mather, Hans J Ohff, Terence Roach, Benjamin Schreer, Tony Shepherd, Geoff Slocombe, Mark Thomson, and Hugh White. *Japan Versus Europe The Quest to Build Australia's Future Submarine*. Canberra: Australian Strategic Policy Institute, 2016. www.jstor.org/stable/resrep04096.

Bertuca, Tony. "State official: THAAD Deployment to Korea in Limbo amid Chinese Concerns." *Inside the Army* 28, no. 18 (May 9, 2016): 12. https://www.jstor.org/stable/10.2307/24840726.

Bitzinger, Richard A. *New Ways of Thinking About the Global Arms Industry: Dealing with 'Limited Autarky'*. Canberra: Australian Strategic Policy Institute. 2015. 2-12. https://www.jstor.org/stable/resrep04093.

Bitzinger, Richard A. *Russian Arms Transfers and Asian Military Modernisation*. Singapore: S. Rajaratnam School of International Studies, 2015. www.jstor.org/stable/resrep05879.

Bitzinger, Richard A. "The Globalization of the Arms Industry: The Next Proliferation Challenge." *International Security* 19, no. 2 (Fall 1994): 170-98. https://doi.org/10.2307/2539199.

Brattberg, Erik and Tomáš Valášek. *Drivers of EU Defense Cooperation*. Washington: Carnegie Endowment for International Peace, 2019. 6-10. https://www.jstor.org/stable/resrep20973.6.

Braunschvig, David, Richard L. Garwin, and Jeremy C. Marwell. "Space Diplomacy." *Foreign Affairs* 82, no. 4 (July – August 2003): 156-64. https://www.jstor.org/stable/20033655.

Briggs, Peter. *Why Australia Should Build its own Submarines*. Canberra: Australian Strategic Policy Institute, 2015. www.jstor.org/stable/resrep04071.

Burnham, James. *Managerial Revolution or What is Happening in the World Now.* London: Putnam and Company Limited. 1942.

Butler, Amy. " U.S. Officials Discuss Galileo Issues." *Inside the Air Force* 13, no. 16 (April 19, 2002): 6-7. www.jstor.org/stable/24789937.

Buzan, Barry, and Ole Wæver. *Regions and Powers: The Structure of International Security*. New York: Cambridge University Press. 2003.

Caverley, Jonathan and Ethan B. Kapstein. "Arms Away: How Washington Squandered Its Monopoly on Weapons Sales." *Foreign Affairs* 91, no. 5 (September/October 2012): 125-32. www.jstor.org/stable/41720866.

Channer, Hayley, Andrew Davies, and Peter Jennings. *Something New Under the Rising Sun: Expanding Australia-Japan Defence Cooperation.* Canberra: Australian Strategic Policy Institute, 2013. www.jstor.org/stable/resrep04030.

China Daily. “Decision to deploy THAAD in S. Korea triggers controversy over regional tension, effectiveness.” July 08, 2016. http://www.chinadaily.com.cn/world/2016-07/08/content_26020451_2.htm.

Chung-in, Moon. "The Political Economy of Defense Industrialization In South Korea: Constraints, Opportunities, and Prospects." *The Journal of East Asian Affairs* 5, no. 2 (1991): 438-65. www.jstor.org/stable/23253549.

Clery, Daniel. "Europe's Answer to GPS Could Be a Boon for Research." *Science* 310, no. 5756 (December 23, 2005): 1893. www.jstor.org/stable/3843086.

Commission of the European Communities. *Progress report on the GALILEO research programme as at the beginning of 2004.* Brussels: COM, 2004. http://aei.pitt.edu/95585/1/galileo.pdf.

Constantine, Roftiel. *GPS and Galileo: Friendly Foes?* Montgomery: Air University Press, 2008. 21-42. www.jstor.org/stable/resrep13860.10.

Corbett, Claire. “Australia’s $60 billion submarine dilemma.” *The Monthly*. August 2014. https://www.themonthly.com.au/issue/2014/august/1406815200/claire-corbett/australia’s-60-billion-submarine-dilemma#mtr.

Creveld, Martin van. *Technology and War: From 2000 B.C. to the Present.* New York: The Free Press. 1991.

Davenport, Kelsey. "North Korea’s New Missile Tests South Korea." *Arms Control Today* 47, no. 5 (June 2017): 27-8. https://www.jstor.org/stable/10.2307/90009422.

Davies, Andrew. *Keeping our heads below water: Australia’s future submarine.* Canberra: Australian Strategic Policy Institute, 2008. www.jstor.org/stable/resrep03882.

Davies, Andrew, and Benjamin Schreer. *The Strategic Dimension of ‘Option J’ Australia’s Submarine Choice and its Security Relations with Japan*. Canberra: Australian Strategic Policy Institute, 2015. www.jstor.org/stable/resrep04075.

Defense Industry Daily. “Pining for Control: South Korea’s KAMD National Ballistic Missile Defense System & M-SAM Surface to Air Missile.” January 02, 2018. https://www.defenseindustrydaily.com/pining-for-control-south-korea-buying-abm-radars-amd-c2-05290/.

Defense World. “South Korea to Order Israeli Green Pine Radars worth US$292 million.” November 27, 2018. https://www.defenseworld.net/news/23753/South_Korea_to_Order_Israeli_Green_Pine_Radars_worth_US_292_million#.Xy6ZaRMzbdQ.

Denisentsev, Sergey. *Russia in the Global Arms Market: Stagnation in a Changing Market Landscape.* Washington: Center for Strategic and International Studies, 2017. 8-25. https://www.jstor.org/stable/resrep23180.6.

Deshpande, Rajeev. "India may quit EU-led GPS Project." *The Times of India*. October 16, 2006. https://timesofindia.indiatimes.com/india/India-may-quit-EU-led-GPS-project/articleshow/2172710.cms.

Eran, Oded and Gallia Lindenstrauss, *With a New World Order Taking Shape, Turkey Again Looks Eastward* (Tel Aviv: Institute for National Security Studies, 2019), 1-5, https://www.jstor.org/stable/resrep19421.

Erickson, Andrew S. "How Strong are China's Armed Forces?" In *The China Questions: Critical Insighs into a Rising Power*, edited by Jennifer Rudolph and Michael Szonyi, 73-80. Cambridge: Harvard University Press, 2018.

European Commission. "EU and Canada agree to extend satellite navigation cooperation." The Community Research and Development Information Service. Accessed June 15, 2020. https://cordis.europa.eu/article/id/16043-eu-and-canada-agree-to-extend-satellite-navigation-cooperation

European Commission. "EU and Republic of Korea sign Galileo agreement." The Community Research and Development Information Service. Accessed June 15, 2020. https://cordis.europa.eu/article/id/26326-eu-and-republic-of-korea-sign-galileo-agreement.

European Commission. "EU and Russia sign agreement on closer collaboration in space." The Community Research and Development Information Service. Accessed August 4, 2020. https://cordis.europa.eu/article/id/25334-eu-and-russia-sign-agreement-on-closer-collaboration-in-space.

European Commission. "Galileo family expands as EU ad India sign agreement." The Community Research and Development Information Service. Accessed June 15, 2020. https://cordis.europa.eu/article/id/24384-galileo-family-expands-as-eu-and-india-sign-agreement.

European Commission. "Morocco joins Galileo." The Community Research and Development Information Service. Accessed August 5, 2020. https://cordis.europa.eu/article/id/26813-morocco-joins-galileo.

European Global Navigation Satellite Systems Agency. "Frequently Asked Questions." European GNSS Galileo FAQ. Accessed June 13, 2020. https://www.gsa.europa.eu/european-gnss/galileo/faq#GAL.

European Union External Action Service. "Cooperation Agreement on a Civil Global Navigation Satellite System (GNSS) between the European Community and its Member States and Ukraine." Treaties Office Database. Updated April 24, 2014.

https://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=9224.

F-35 Lightning II Joint Program Office. “F-35 Background.” F-35 Lightning II. Accessed June 02, 2020. https://www.jsf.mil/f35/f35_background.htm.

F-35 Lightning II Joint Program Office. “F-35 Introduction.” F-35 Lightning II. Accessed June 02, 2020. https://www.jsf.mil/f35/index.htm.

F-35 Lightning II Joint Program Office. “History: JAST.” F-35 Lightning II. Accessed June 02, 2020. https://www.jsf.mil/history/his_jast.htm.

F-35 Lightning II Joint Program Office. “History: F-35 Acquisition.” F-35 Lightning II. Accessed June 02, 2020. https://www.jsf.mil/history/his_f35.htm.

F-35 Lightning II Joint Program Office. “Program Overview.” F-35 Lightning II. Accessed June 02, 2020. https://www.jsf.mil/program/.

Fishman, Edward, Peter Harrell, and Elizabeth Rosenberg. *A Blueprint for New Sanctions on North Korea*. Washington: Center for a New American Security, 2017. www.jstor.org/stable/resrep06213.

Gady, Franz-Stefan. “3 Countries Asked to Bid for Largest-Ever Australian Defense Contract.” *The Diplomat*. February 24, 2015. https://thediplomat.com/2015/02/3-countries-asked-to-bid-for-largest-ever-australian-defense-contract/.

Gady, Franz-Stefan. “Australia, France Close to Finalizing Agreement for $36 Billion Submarine Fleet.” *The Diplomat*. December 13, 2018. https://thediplomat.com/2018/12/australia-france-close-to-finalizing-agreement-for-36-billion-submarine-fleet/.

Gady, Franz-Stefan. “Australia, France Sign $35.5 Billion Submarine Contract.” *The Diplomat.* February 11, 2019. https://thediplomat.com/2019/02/australia-france-sign-35-5-billion-submarine-contract/.

Gady, Franz-Stefan. “Did Japan Just Lose the Bid to Build Australia’s New Subs?” *The Diplomat*. April 21, 2016. https://thediplomat.com/2016/04/did-japan-just-lose-the-bid-to-build-australias-new-subs/.

Gady, Franz-Stefan. “Will Japanese Subs Be Built in Australia?” *The Diplomat*. March 31, 2015. https://thediplomat.com/2015/03/will-japanese-subs-be-built-in-australia/.

Gady, Franz-Stefan. “Why Japan Lost the Bid to Build Australia’s New Subs.” *The Diplomat.* April 27, 2016. https://thediplomat.com/2016/04/why-japan-lost-the-bid-to-build-australias-new-subs/.

Gansler, Jacques S. *Democracy's Arsenal: Creating a Twenty-First-Century Defense Industry.* Cambridge: The MIT Press. 2011.

Gilpin, Robert. *Global Political Economy: Understanding the International Economic Order*. New Jersey: Princeton University Press. 2001.

Glaser, Charles L. "Realists as Optimists: Cooperation as Self-Help." *International Security* 19, no. 3 (Winter 1994-1995): 50-90. doi:10.2307/2539079.

Glaser, Charles L. "The Security Dilemma Revisited." *World Politics* 50, no. 1 (October 1997): 171-201. www.jstor.org/stable/25054031.

Government of Canada. "Canada Participating in European Galileo Satellite Navigation Program." Accessed June 15, 2020. https://www.canada.ca/en/news/archive/2003/10/canada-participating-european-galileo-satellite-navigation-program.html.

GPS. "What is GPS?" GPS: The Global Positioning System. Accessed June 13, 2020. https://www.gps.gov/systems/gps/

Grieco, Joseph M. "Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism." *International Organization* 42, no. 3 (Summer 1988): 485-507. www.jstor.org/stable/2706787.

Guay, Terrence R. *Emerging Powers and Future Threats: Implications for the U.S. and Global Defense Industry.* Pennsylvania: Strategic Studies Institute, US Army War College. 2017. https://www.jstor.org/stable/resrep11372.

Harkavy, Robert E. "The Changing International System and the Arms Trade." *The Annals of the American Academy of Political and Social Science* 535 (September 1994): 11-28, https://www.jstor.org/stable/1048122.

Hartung, William D. "Nixon's Children: Bill Clinton and the Permanent Arms Bazaar." *World Policy Journal* 12, no. 2 (Summer 1995): 25-35. www.jstor.org/stable/40209410.

Hayward, Keith. "The globalisation of defence industries." *Survival* 43, no.2 (2001): 115-132. https://doi.org/10.1093/survival/43.2.115

Hilary, John, Maria LaHood, Josh Ruebner, Shir Hever, Paul Troop, Chris Osmond, and Ben Hayes. *Corporate Complicity in Israel's Occupation: Evidence from the London Session of the Russell Tribunal on Palestine*. London: Pluto Press, 2011. https://www.jstor.org/stable/j.ctt183p4xd.11.

Hunter, Andrew P., Kristina Obecny and Gregory Sanders. *U.S.-Canadian Defense Industrial Cooperation*. Washington: Center for Strategic and International Studies. 2017. 7-8. https://www.jstor.org/stable/resrep23170.6.

Huntington, Samuel P. "Why International Primacy Matters." *International Security* 17, no. 4 (Spring 1993): 68-83. http://www.jstor.com/stable/2539022.

Hyer, Eric. "China's Arms Merchants: Profits in Command." *The China Quarterly*, no. 132 (December 1992): 1101-118. www.jstor.org/stable/654195.

Inside GNSS. "The Perils (and Pearls) of Galileo." January 01, 2006. https://insidegnss.com/the-perils-and-pearls-of-galileo/

James, Andrew D. "The Prospects for a Transatlantic Defense Industry." *Chaillot Paper* 44 (January 2001): 93-122. https://www.iss.europa.eu/sites/default/files/EUISSFiles/cp044e.pdf.

JAPCC. "F-35, The Backbone of Next Generation NATO Operations." Joint Air Power Competence Centre. Accessed August 03, 2020. https://www.japcc.org/f-35-the-backbone-of-next-generation-nato-operations/.

Jeong, Jeff. "South Korea moves to kick its missile defense shield up a notch." *Defense News*, 2019, August 14. https://www.defensenews.com/global/asia-pacific/2019/08/14/south-korea-moves-to-kick-its-missile-defense-shield-up-a-notch/.

Jervis, Robert. "Cooperation Under the Security Dilemma." *World Politics* 30, no. 2 (1978): 167-214. www.jstor.org/stable/2009958.

Jiyoon, Kim, John J. Lee, and Kang Chungku. *A Shrimp Between Two Whales? Koreans' View of the US-China Rivalry and THAAD.* Seoul: Asan Institute for Policy Studies, 2017. www.jstor.org/stable/resrep08165.

Jiyoon, Kim, John J. Lee, and Kang Chungku. *Changing Tides: THAAD and Shifting Korean Public Opinion toward the United States and China.* Seoul: Asan Institute for Policy Studies, 2017. www.jstor.org/stable/resrep08159.

Kapstein, Ethan B. "Losing Control: National Security and the Global Economy." *The National Interest*, no. 18 (Winter 1989/90): 85-90. www.jstor.org/stable/42894648.

Kasapoglu, Can. *Turkey's S-400 Dilemma*. İstanbul: Centre for Economics and Foreign Policy Studies, 2017. www.jstor.org/stable/resrep14080.

Kaya, Emre Kürşat. *European Defence Ecosystem, Third Countries' Participation and The Special Case of Turkey*. İstanbul: Centre for Economics and Foreign Policy Studies, 2019. https://www.jstor.org/stable/resrep21054.

Kenwood, A.G., and Lougheed, A.L. *Technological Diffusion and Industrialization before 1914.* New York: St Martin's Press. 1982.

Keohane, Robert O. *After Hegemony: Cooperation and Discord in the World Political Economy*. New Jersey: Princeton University Press. 1984.

King, Amy. "Japan in Australia's 2016 Defence White Paper." *Security Challenges* 12, no. 1 (2016): 177-80. www.jstor.org/stable/26465727.

Krause, Keith. *Arms and the State: Patterns of Military Production and Trade.* Cambridge: Cambridge University Press. 1992.

Lebl, Leslie S. *European Union Defense Policy an American Perspective*. Washington: Cato Institute, 2004. www.jstor.org/stable/resrep04890.

Lee, Brianni. "THAAD Deployment in South Korea: Militarism Leading to Political Regression." *Harvard International Review* 38, no. S1 (Winter 2017): 34-37. www.jstor.org/stable/26445597.

Lee, Christy. "Experts: Combine US, S. Korean Missile Systems to Boost Defense vs. North." *Voice of America*, May 26, 2019. https://www.voanews.com/east-asia-pacific/experts-combine-us-s-korean-missile-systems-boost-defense-vs-north.

Lindström Gustav and Giovanni Gasparini. "The Galileo Satellite System and its Security Implications." *Institute for Security Studies Occasional Paper* no. 44 (April 2003). https://www.iss.europa.eu/sites/default/files/EUISSFiles/occ44.pdf.

Lockheed Martin. "Australia: Industrial Partnerships." F-35 Lightning II. Accessed August 03, 2020. https://www.f35.com/global/participation/australia-ip.

Lockheed Martin. "Finland: Lockheed Martin. Your Mission is Ours." F-35 Lightning II. Accessed August 03, 2020. https://www.f35.com/global/participation/finland.

Lockheed Martin. "GPS Satellite History." GPS III. Accessed June 13, 2020. https://www.lockheedmartin.com/en-us/products/gps.html.

Lockheed Martin. "GPS III: The Future of Global Positioning Systems." GPS III. Accessed June 13, 2020. https://www.lockheedmartin.com/en-us/products/gps.html.

Lockheed Martin. "Israel: Israel's 5th Generation Fighter." F-35 Lightning II. Accessed August 03, 2020. https://www.f35.com/global/participation/israel

Lockheed Martin. "Japan: JASDF's Next Generation Fighter." F-35 Lightning II. Accessed August 03, 2020. https://www.f35.com/global/participation/japan.

Lockheed Martin. "Republic of Korea: The F-35 Lightning II." F-35 Lightning II. Accessed August 03, 2020. https://www.f35.com/global/participation/republic-of-korea.

Lockheed Martin. “Switzerland F-35: Your Mission is Ours.” F-35 Lightning II. Accessed August 3, 2020. https://www.f35.com/global/participation/switzerland.

Lockheed Martin. “Turkey.” F-35 Lightning II. Accessed June 03, 2020. https://www.f35.com/global/participation/turkey.

Lockheed Martin. “Turkey Received Delivery of Its First F-35 Aircraft.” F-35 Lightning II. Accessed June 03, 2020. https://www.f35.com/news/detail/turkey-received-delivery-of-its-first-f-35-aircraft.

Lockheed Martin. “THAAD Endo/Exoatmospheric Intercept Capability.” Lockheed Martin Product Card. Accessed June 11, 2020. https://www.lockheedmartin.com/content/dam/lockheed-martin/mfc/pc/thaad/mfc-iamd-thaad-pc.pdf.

Looney, Robert. *Third-World Military Expenditure and Arms Production*. London: Macmillan Press. 1988.

Maye, Diane L. "Autarky or Interdependence: U.S. vs. European Security and Defense Industries in a Globalized Market." *Journal of Strategic Security* 10, no. 2 (Sumer 2017): 33-47. www.jstor.org/stable/26466841.

McGrath, Ciaran. “EU Snub: India to join European satellite Project Galileo which Britain is Locked out of.” *Express*, April 27, 2019. https://www.express.co.uk/news/world/1119329/india-galileo-space-sector-brexit-news-theresa-may-eu.

Mearsheimer, John J. "Back to the Future: Instability in Europe after the Cold War." *International Security* 15, no. 1 (Summer 1990): 5-56. https://doi.org/10.2307/2538981.

Mearsheimer, John J. "The False Promise of International Institutions." *International Security* 19, no. 3 (Winter 1994-1995): 5-49. https://doi.org/10.2307/2539078.

Medeiros, Evan S. "The New Security Drama in East Asia: The Responses of U.S. Allies and Security Partners to China’s Rise." *Naval War College Review* 62, no. 4 (Autumn 2009): 37-52. www.jstor.org/stable/26397053

Mellow, Craig. “Why Europe Wants its Own Satellite Navigation Program.” *Air & Space Magazine*, April, 2012. https://www.airspacemag.com/space/the-galileo-project-4098287/.

Milner, Helen. "The Assumption of Anarchy in International Relations Theory: A Critique." *Review of International Studies* 17, no. 1 (January 1991): 67-85. www.jstor.org/stable/20097244.

National Land Survey of Finland. “The European satellite positioning system Galileo.” Accessed August 5, 2020. https://www.maanmittauslaitos.fi/en/research/interesting-topics/galileo.

Nelson, Richard R. *National Innovative Systems: A Comperative Analysis.* New York: Oxford University Press. 1993.

NTV. “Savunma Sanayii Başkanı İsmail Demir’den S-400 açıklaması.” June 98, 2020. https://www.ntv.com.tr//turkiye/savunma-sanayii-baskani-ismail-demirden-s-400-aciklamasi,JDll7lZ1PUmKXy0rz-TWzg.

Nye, Joseph S. “Multinational Corporations in World Politics.” *Foreign Affairs* 53, no.1 (October 1974): 153-75. https://doi.org/10.2307/20039497

Nye, Joseph S. and David A. Welch. *Understanding Global Conflict and Cooperation: An Introduction to Theory and History*. Boston, London: Pearson. 2017.

Nye, Joseph S. and Robert O. Keohane. "Power and Interdependence Revisited." *International Organization* 41, no. 4 (Autumn 1987): 725-53. www.jstor.org/stable/2706764.

Özer, Verda. “Understanding the S-400 crisis.” *Aljazeera,* August 05, 2019. https://www.aljazeera.com/indepth/opinion/understanding-400-crisis-190801201222608.html.

Park, Hwee Rhak. "The Ballistic Missile Defense Construction Strategies of South Korea and Japan: Self-reliance versus Cooperation with the US." *Journal of International and Area Studies* 25, no. 2 (December 2018): 87-106. https://www.jstor.org/stable/10.2307/26909945.

Parker, Geoffrey. *The Military Revolution: Military Innovation and the Rise of the West 1500-1800*. Cambridge: Cambridge University Press. 1996.

Pearson, Frederic S. *The Global Spread of Arms: Political Economy of International Security*. Colorado: Westvire Press. 1994.

People’s Daily Online. “China, EU jointly develop Galileo Project.” Accessed August 4, 2020. http://en.people.cn/200309/20/print20030920_124595.html

Pierre, Andrew J. *The Global Politics of Arms Sales*. New Jersey: Princeton University Press. 1982.

Pollack, Joshua H., Miles Pomper, Ferenc Dalnoki-Veress, Joy Nasr, and Dave Schmerler. *Options for a Verifiable Freeze on North Korea’s Missile Programs*. Monterey: James Martin Center for Nonproliferation Studies, 2019. https://www.jstor.org/stable/resrep19700.6.

Posen, Barry R. *The Sources of Military Doctrine: France, Britain, and Germany between the World War*. New York: Cornell University Press. 1984.

Preble, Christopher. *Joint Strike Fighter Can a Multiservice Fighter Program Succeed?* Washington: Cato Institute, 2002. www.jstor.org/stable/resrep04908.

Raska, Michael, and Richard A. Bitzinger. "Strategic Contours of China's Arms Transfers." *Strategic Studies Quarterly* 14, no. 1 (Spring 2020): 91-116. https://www.jstor.org/stable/10.2307/26891885.

Reif, Kingston. "Moon Reverses THAAD Decision." *Arms Control Today* 47, no. 7 (September 2017): 30-31. www.jstor.org/stable/90012871.

Roblin, Sebastien. "Meet South Korea's Very Own Killer S-300 Air Defense System." *The National Interest*, February 24, 2019. https://nationalinterest.org/blog/buzz/meet-south-koreas-very-own-killer-s-300-air-defense-system-45477.

Ross, Andrew L. "Arms Acquisition And National Security In The Third World." *ACDIS Occasional Paper*, (1986): 1-49. https://www.ideals.illinois.edu/handle/2142/104107.

Ross, Robert S. "What Does the Rise of China Mean for the United States?" In *The China Questions: Critical Insights into a Rising Power*, edited by Jennifer Rudolph and Michael Szonyi, 81-89. Cambridge: Harvard University Press, 2018.

Rumer, Eugene. *Russia and Turkey – It's Complicated.* Washington: Carnegie Endowment for International Peace, 2019. https://www.jstor.org/stable/resrep21000.10.

Tomohiko Satake "Japan-Australia Relations: Toward Regional Order-Building." in *Japan's Global Diplomacy: Views from the Next Generation.* Washington: Stimson Center, 2015. www.jstor.org/stable/resrep10937.7.

Schreer, Benjamin. "Alliance Considerations," in *The Submarine Choice: Perspectives on Australia's Most Complex Defence Project*. Canberra: Australian Strategic Policy Institute, 2014. 45-49. www.jstor.org/stable/resrep04207.7.

Schweller, Randall L. "Bandwagoning for Profit: Bringing the Revisionist State Back In." *International Security* 19, no. 1 (Summer 1994): 72-107. https://doi.org/10.2307/2539149.

Shamah, David. "Israel becomes major partner in EU satellite program." *The Times of Israel,* October 22, 2013. https://www.timesofisrael.com/israel-becomes-major-partner-in-eu-satellite-program/.

Shapiro, Andrew J. “A New Era for U.S. Security Assistance.” *Washington Quarterly* 35, no.4 (Fall 2012): 23-35. http://dx.doi.org/10.1080/0163660X.2012.725021

Snyder, Scott A. *South Korea at the Crossroads: Autonomy and Alliance in an Era of Rival Powers*. New York: Columbia University Press. 2018. https://www.jstor.org/stable/10.7312/snyd18548.12.

Space Daily. “India Signs Agreement to Take Part in Europe’s Galileo Satellite Project.” September 07, 2005. https://www.spacedaily.com/news/gps-euro-05w.html

SSB. “ATAK Reconnaissance and Tactical Attack Helicopter.” Presidency of the Republic of Turkey Presidency of Defence Industries. Accessed June 05, 2020. https://www.ssb.gov.tr/WebSite/contentlist.aspx?PageID=363&LangID=2.

Surry, Eamon. *Transparency in the Arms Industry*. Stockholm: Stockholm International Peace Research Institute, 2006. www.jstor.org/stable/resrep19212.7.

Stanley, John and Maurice Pearton. *The International Trade in Arms*. New York: Praeger Publishers. 1972.

Stohl, Rachel, and Suzette Grillot. *The International Arms Trade.* Oxford: Wiley. 2009.

Sung-ki, Jung. “3-Way Race for Ballistic Missile Warning Radars.” *The Korea Times*, May 19, 2009. http://www.koreatimes.co.kr/www/news/nation/2009/05/113_45215.html.

Takahashi, Sugio. "Transformation of Japan’s Defence Industry? Assessing the Impact of the Revolution in Military Affairs." *Security Challenges* 4, no. 4 (Summer 2008): 101-15. www.jstor.org/stable/26459811.

Tatsumi, Yuki, *US-Japan-Australia Security Cooperation: Prospects and Challenges*. Washington: Stimson Center, 2015. 77-90. www.jstor.org/stable/resrep11008.11.

Taylor, Trevor. "Defence Industries in International Relations." *Review of International Studies* 16, no. 1 (January 1990): 59-73. www.jstor.org/stable/20097208.

The New York Times. “Clinton Acts to Make GPS More Accurate.” May 02, 2000. https://www.nytimes.com/2000/05/02/technology/clinton-acts-to-make-gps-more-accurate.html

Thrall, A. Trevor, and Caroline Dorminey. *Risky Business: The Role of Arms Sales in T.S. Foreign Policy*. Washington: Cato Institute, 2018. https://www.jstor.org/stable/resrep23043.

Thucydides. *History of the Peloponnesian War.* Translated by Rex Warner. Harmondsworth: Penguin Books. 1972.

Tocci, Nathalie. *Turkeys European Future: Behind the Scenes of Americas Influence on EU-Turkey Relations*. New York: NYU Press. 2011. www.jstor.org/stable/j.ctt9qg9c4.11.

Tol, Gonul, and Nilsu Goren. *Turkey's Quest for Air Defense: Is the S-400 Deal a Pivot to Russia?* Washington: Middle East Institute, 2017. www.jstor.org/stable/resrep17605.

Townsend, Jim, and Rachel Ellehuus. "The Tale of Turkey and the Patriots." War on the Rocks (blog). Updated July 22, 2019. https://warontherocks.com/2019/07/the-tale-of-turkey-and-the-patriots/.

"Trend Indicator Values of Arms Exports: 50 Major Arms Suppliers, 1990-2019." Stockholm International Peace Research Institute (SIPRI). Accessed April 22, 2020. http://armstrade.sipri.org/armstrade/page/toplist.php

"Trend Indicator Values (TIV) of Arms Exports to Australia 1990-2019." Stockholm International Peace Research Institute (SIPRI). Accessed April 22, 2020. http://armstrade.sipri.org/armstrade/page/values.php.

"Trend Indicator Values (TIV) of Arms Exports to India 1990-2019." Stockholm International Peace Research Institute (SIPRI). Accessed April 22, 2020. http://armstrade.sipri.org/armstrade/page/values.php

"Trend Indicator Values of Arms Imports: 75 Major Arms Recipients, 1990-2019." Stockholm International Peace Research Institute (SIPRI). Accessed April 22, 2020. http://armstrade.sipri.org/armstrade/page/toplist.php

"Trend Indicator Values of Arms Exports from United States, 1990-2019." Stockholm International Peace Research Institute (SIPRI). Accessed April 22, 2020. http://armstrade.sipri.org/armstrade/page/values.php

Turkish Aerospace. "Component Production." Accessed June 05, 2020. https://www.tusas.com/en/products/component-production.

Turkish Aerospace. "JSF/F-35 Program." Accessed June 05, 2020. https://www.tusas.com/en/product/jsff-35-program.

Turkish Aerospace. "T129 ATAK." Accessed June 05, 2020. https://www.tusas.com/en/product/t129-atak.

UK Parliament. "EU space programmes: Galileo, EGNOS and Copernicus." Documents considered by the Committee on 18 April 2018. Accessed August 05, 2020. https://publications.parliament.uk/pa/cm201719/cmselect/cmeuleg/301-xxiii/30104.htm.

Van Orden, Geoffrey. “UK still has the right to take part in Galileo.” *Financial Times,* March 29, 2018. https://www.ft.com/content/b6a61ba8-30fb-11e8-b5bf-23cb17fd1498.

Van Orden, Geoffrey. *European Arms Export Controls*. Paris: European Union Institute for Security Studies, 1996. https://www.jstor.org/stable/resrep06980.9.

Vernon, Raymond, and Ethan B. Kapstein. "National Needs, Global Resources." *Daedalus* 120, no. 4 (1991): 1-22. www.jstor.org/stable/20025401.

Via Satellite. “South Korea Signs Galileo Cooperation Agreement.” September 12, 2006. https://www.satellitetoday.com/uncategorized/2006/09/12/south-korea-signs-galileo-cooperation-agreement/

Vucetic, Srdjan. "The F-35 Joint Strike Fighter." In *Making Things International 2: Catalysts and Reactions*, edited by Mark B. Salter, 3-19. Minnesota: University of Minnesota Press, 2016. www.jstor.org/stable/10.5749/j.ctt1b9s0d9.4.

Vucetic, Srdjan, and Kim Richard Nossal. "The International Politics of the F-35 Joint Strike Fighter." *International Journal* 68, no. 1 (Winter 2012-13): 3-12. www.jstor.org/stable/42704957.

Walt, Stephen M. "Alliance Formation and the Balance of World Power." *International Security* 9, no. 4 (Spring 1985): 3-43. https://doi.org/10.2307/2538540.

Walt, Stephen M. *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars*. New York: Cornell University Press. 1987.

Waltz, Kenneth N. *Theory of International Politics*. Philippines: Addison-Wesley Publishing Company. 1984.

Wang, Sheng-Chih. *Transatlantic Space Politics: Competition and cooperation above the clouds.* New York: Routledge. 2013.

Watts, Robert C. ““Rockets’ Red Glare”: Why Does China Oppose THAAD in South Korea, and What Does It Mean for U.S. Policy?" *Naval War College Review* 71, no. 2 (Spring 2018): 79-108. www.jstor.org/stable/26607047.

White, Harry. “Asia’s Submarine Capability.” In *The Submarine Choice: Perspectives on Australia’s Most Complex Defence Project*. Canberra: Australian Strategic Policy Institute, 2014. www.jstor.org/stable/resrep04207.8.

Yoon, Sukjoon. “Stopping North Korean Missiles: An Alternative to THAAD.” *The Diplomat*, July 18, 2016. https://thediplomat.com/2016/07/stopping-north-korean-missiles-an-alternative-to-thaad/.

Zanotti, Jim and Clayton Thomas. *Turkey: U.S. Sanctions Under the Countering America's Adversaries Through Sanctions Act (CAATSA)* . IN11557. Washington DC: Congressional Research Service, 2020. https://crsreports.congress.gov/product/pdf/IN/IN11557.

Øberg, Jan. "Third World Armament: Domestic Arms Production in Israel, South Africa, Brazil, Argentina and India 1950 - 75." *Instant Research on Peace and Violence* 5, no. 4 (1975): 222-39. www.jstor.org/stable/40724787.

APPENDICES

A. SIPRI DATA

All figures are SIPRI Trend Indicator Values (TIVs) expressed in millions.

A '0' indicates that the value of deliveries is less than 0.5m

Table-1: SIPRI TIV of Arms Exports: 50 Major Arms Suppliers, 1990-2019

Rank 1990-2019	**Supplier**	**1990-2019**
1	United States	289310
2	*European Union*	*209352*
3	Russia	145717
4	Germany	53071
5	France	52926
6	United Kingdom	38878
7	China	29777
8	Soviet Union	15535
9	Netherlands	15431
10	Italy	14865
11	Israel	14171
12	Spain	13498
13	Ukraine	12064
14	Sweden	9903
15	Switzerland	7917
16	South Korea	6001
17	Canada	5630
18	Belarus	3008
19	Norway	2557
20	Turkey	2301
21	South Africa	2153
22	Czechia	1962
23	Poland	1848
24	Australia	1666
25	Belgium	1602

26	Brazil	1362
27	Finland	1262
28	North Korea	1261
29	Czechoslovakia	1253
30	Uzbekistan	1111
31	UAE	961
32	Japan	961
33	Denmark	841
34	Bulgaria	839
35	Slovakia	828
36	Austria	750
37	Jordan	663
38	Yugoslavia	626
39	India	549
40	Unknown supplier(s)	546
41	Singapore	493
42	Moldova	487
43	Iran	434
44	Indonesia	434
45	Libya	421
46	Portugal	405
47	Romania	403
48	Kazakhstan	261
49	Serbia	247
50	Ireland	227
51	Hungary	216

Table-2: SIPRI TIV of Arms Exports: 75 Major Arms Recipients, 1990-2019

Rank 1990-	Recipient	1990-2019
1	India	64318
2	Saudi Arabia	46824
3	China	46527
4	South Korea	34202
5	Turkey	32259
6	Egypt	27882
7	Japan	26052
8	UAE	25026
9	Taiwan	23551
10	Pakistan	22703
11	Australia	22372
12	Greece	22181
13	United States	19825
14	Algeria	17877
15	Israel	16759
16	United	16278
17	Singapore	14697
18	Iraq	9863
19	Canada	9362
20	Indonesia	9261
21	Viet Nam	8857
22	Iran	8591
23	Italy	8373
24	Thailand	8129
25	Spain	8019
26	Kuwait	7501
27	Malaysia	7340
28	Norway	7309
29	Afghanistan	7268
30	Germany	7135
31	Brazil	6993
32	Qatar	6910
33	Chile	6601
34	Finland	6452
35	Venezuela	6309
36	Netherlands	5879
37	Morocco	5876
38	Poland	5859
39	Myanmar	5561
40	Bangladesh	5186
41	Oman	5010
42	Syria	4803
43	Portugal	4266

44	Switzerland	4264
45	South Africa	4227
46	Azerbaijan	4072
47	Jordan	3989
48	Mexico	3784
49	France	3663
50	Colombia	3310
51	Romania	3012
52	Sweden	2976
53	Peru	2947
54	Kazakhstan	2770
55	Denmark	2646
56	Yemen	2456
57	Angola	2330
58	Sudan	2300
59	Hungary	2010
60	Sri Lanka	1977
61	Belgium	1771
62	Bulgaria	1767
63	Argentina	1736
64	Bahrain	1731
65	Ethiopia	1697
66	Austria	1607
67	Philippines	1603
68	New Zealand	1521
69	Nigeria	1413
70	Belarus	1354
71	Turkmenistan	1293
72	North Korea	1281
73	Czechia	1060
74	Russia	1057
75	Ecuador	1041

Table-3: SIPRI TIV of Arms Exports from United States, 1990-2019

Rank 1990-	Country	Total
1	Saudi Arabia	30689
2	South Korea	24908
3	Japan	24536
4	Taiwan	18553
5	Turkey	17635
6	Egypt	16471
7	Israel	14409
8	Australia	12706
9	United Kingdom	12522
10	UAE	11747
11	Greece	10423
12	Singapore	7307
13	Germany	5320
14	Canada	5298
15	Kuwait	5051
16	Italy	4735
17	Iraq	4699
18	India	3970
19	Pakistan	3900
20	Spain	3846
21	Netherlands	3635
22	Qatar	3166
23	Finland	3140
24	Afghanistan	2913
25	Thailand	2628
26	Morocco	2559
27	Norway	2534
28	Poland	2362
29	France	2150
30	Switzerland	2099
31	Mexico	1920
32	Colombia	1791
33	Portugal	1425
34	Oman	1414
35	Bahrain	1397
36	Jordan	1384
37	Sweden	1217
38	Indonesia	1128
39	Brazil	1080
40	Chile	1073
41	Denmark	981
42	Argentina	813

43	Malaysia	741
44	Belgium	733
45	Philippines	586
46	NATO**	498
47	Tunisia	434
48	New Zealand	424
49	Lebanon	372
50	Romania	337
51	Peru	239
52	Algeria	234
53	Bangladesh	224
54	Nigeria	170
55	Sri Lanka	161
56	Czechia	141
57	Austria	136
58	Ecuador	132
59	Venezuela	132
60	South Africa	130
61	Brunei	118
62	Croatia	108
63	Latvia	89
64	Bosnia-Herzegovina	87
65	Hungary	83
66	Bolivia	76
67	Slovakia	71
68	El Salvador	66
69	Dominican Republic	60
70	Slovenia	59
71	Ethiopia	56
72	Viet Nam	54
73	Botswana	51
74	Unknown recipient(s)	48
75	Uruguay	46
76	Kazakhstan	43
77	Bahamas	42
78	China	39
79	Kenya	39
80	Panama	39
81	Jamaica	37
82	Uzbekistan	37
83	Yemen	36
84	Trinidad and Tobago	35
85	Lithuania	31
86	Georgia	29
87	DR Congo	28
88	Guatemala	24

89	Cameroon	23
90	Estonia	23
91	Malta	23
92	Uganda	22
93	Ukraine	20
94	Bulgaria	18
95	Equatorial Guinea	18
96	Ghana	18
97	Chad	15
98	Montenegro	15
99	Djibouti	14
100	Regional Security	14
101	Cyprus	13
102	Mali	13
103	Macedonia	12
104	Niger	12
105	Albania	9
106	Angola	9
107	Central African Republic	9
108	Ireland	9
109	Malawi	9
110	United Nations**	9
111	Namibia	8
112	Luxembourg	6
113	Mauritania	6
114	Senegal	6
115	Togo	6
116	Zambia	6
117	Lesotho	5
118	Azerbaijan	4
119	Honduras	4
120	Libya	4
121	Papua New Guinea	4
122	Burkina Faso	3
123	Burundi	3
124	Gabon	3
125	Libya HoR	3
126	Nepal	3
127	Seychelles	3
128	Suriname	3
129	African Union**	2
130	Costa Rica	2
131	Libya GNC	2
132	Micronesia	2
133	Palau	2
134	Paraguay	2

135	South Sudan	2
136	Congo	1
137	Mauritius	1
138	Somalia	1
139	Syria rebels*	1
140	Belize	0
141	Cote d'Ivoire	0
142	Serbia	0
143	Tonga	0
144	Zimbabwe	0

Table-4: SIPRI TIV of Arms Exports to/from India, 1990-2019

EXPORTS TO INDIA			EXPORTS FROM INDIA		
Ranking	**Countries**	**Total**	**Ranking**	**Countries**	**Total**
1	Russia	40831	1	Myanmar	166
2	Israel	3997	2	Sri Lanka	132
3	United States	3970	3	Mauritius	76
4	Soviet Union	3260	4	Nepal	43
5	United	2864	5	Seychelles	37
6	France	2733	6	Ecuador	27
7	Netherlands	1344	7	Maldives	25
8	Germany	1320	8	Afghanistan	15
9	Uzbekistan	1005	9	Mozambique	15
10	Ukraine	672	10	Namibia	6
11	Poland	514	11	Guinea-	5
12	Italy	449	12	Suriname	3
13	South Korea	432	13	Bhutan	0
14	Slovakia	191			
15	Kyrgyzstan	180			
16	South Africa	137			
17	Canada	125			
18	Australia	108			
19	Switzerland	75			
20	Sweden	55			
21	Brazil	21			
22	Singapore	19			
23	Kazakhstan	17			

Table-5: SIPRI TIV of Arms Exports to/from South Korea, 1990-2019

EXPORTS TO SOUTH KOREA			EXPORTS FROM SOUTH		
Ranking	**Countries**	**Total**	**Ranking**	**Countries**	**Total**
1	United States	24908	1	Turkey	1397
2	Germany	4850	2	Indonesia	1221
3	France	1536	3	United Kingdom	532
4	United Kingdom	818	4	India	432
5	Russia	492	5	Iraq	430
6	Spain	490	6	Philippines	368
7	Netherlands	430	7	Thailand	363
8	Israel	325	8	Peru	267
9	Italy	116	9	Bangladesh	214
10	Sweden	109	10	Viet Nam	120
11	Indonesia	66	11	Norway	118
12	Canada	63	12	Malaysia	107
			13	Myanmar	90
			14	Colombia	80
			15	Egypt	60
			16	Poland	60
			17	Venezuela	45
			18	Australia	30
			19	Finland	18
			20	Kazakhstan	14
			21	Timor-Leste	14
			22	Chile	10
			23	Ghana	5
			24	Jordan	3
			25	Saudi Arabia	3

Table-6: SIPRI TIV of Arms Exports to/from Turkey, 1990-2019

EXPORTS TO TURKEY			EXPORTS FROM TURKEY		
Ranking	**Countries**	**Total**	**Ranking**	**Countries**	**Total**
1	United States	17635	1	Turkmenistan	407
2	Germany	5629	2	Saudi Arabia	384
3	South Korea	1397	3	Pakistan	259
4	Spain	1301	4	Malaysia	253
5	Italy	1208	5	UAE	241
6	France	1201	6	Oman	143
7	United Kingdom	1132	7	Azerbaijan	96
8	Israel	854	8	Qatar	95
9	Netherlands	627	9	Iraq	69
10	Russia	480	10	Bahrain	63
11	Switzerland	335	11	Georgia	62
12	China	298	12	Nigeria	31
13	Saudi Arabia	62	13	Tunisia	29
14	Norway	53	14	Jordan	20
15	Canada	37	15	Bangladesh	17
16	Denmark	9	16	Libya GNC	17
			17	Russia	16
			18	Kazakhstan	14
			19	Egypt	13
			20	Kuwait	11
			21	Rwanda	11
			22	Burkina Faso	9
			23	Ukraine	8
			24	Afghanistan	5
			25	Ghana	5
			26	Colombia	4
			27	Senegal	4
			28	Uzbekistan	4
			29	Chad	3
			30	Mauritania	3
			31	Philippines	2
			32	Slovenia	2
			33	Kosovo	1
			34	Syria rebels*	1
			35	Macedonia	0
			36	Maldives	0
			37	Montenegro	0

Table-7: SIPRI TIV of Arms Exports to/from Australia, 1990-2019

EXPORTS TO AUSTRALIA			EXPORTS FROM AUSTRALIA		
Ranking	**Countries**	**Total**	**Ranking**	**Countries**	**Total**
1	United States	12706	1	United States	572
2	Spain	2445	2	Pakistan	202
3	Germany	2240	3	Indonesia	153
4	Sweden	1583	4	New Zealand	116
5	France	986	5	India	108
6	United	816	6	Canada	90
7	Italy	518	7	Singapore	81
8	Switzerland	299	8	Yemen	49
9	Ireland	221	9	Oman	40
10	Canada	210	10	Kuwait	34
11	Israel	192	11	Tonga	24
12	Norway	92	12	Trinidad and	24
13	New Zealand	34	13	Netherlands	22
14	South Korea	30	14	Fiji	19
15	Austria	2	15	Micronesia	18
			16	Philippines	18
			17	Papua New Guinea	14
			18	Solomon Islands	13
			19	Tuvalu	13
			20	Brunei	10
			21	Samoa	7
			22	Kiribati	6
			23	Marshall Islands	6
			24	Palau	6
			25	Sweden	6
			26	Sri Lanka	5
			27	United Kingdom	5
			28	Jamaica	3
			29	Japan	2
			30	Jordan	1
			31	Malaysia	1
			32	Ghana	0
			33	Iraq	0
			34	Lesotho	0

Table-8: SIPRI TIV of Arms Exports to/from Israel, 1990-2019

EXPORTS TO ISRAEL			EXPORTS FROM ISRAEL		
Ranking	**Countries**	**Total**	**Ranking**	**Countries**	**Total**
1	United States	14409	1	India	3997
2	Germany	1992	2	United States	1177
3	Italy	255	3	Turkey	854
4	France	67	4	Azerbaijan	825
5	Canada	19	5	Singapore	732
6	Aruba	18	6	South Africa	641
			7	Sri Lanka	466
			8	Viet Nam	428
			9	Chile	404
			10	Colombia	382
			11	China	350
			12	Italy	331
			13	South Korea	325
			14	Brazil	300
			15	Romania	253
			16	Mexico	247
			17	United Kingdom	241
			18	Australia	192
			19	Spain	144
			20	Canada	137
			21	Germany	132
			22	Netherlands	119
			23	Philippines	96
			24	Poland	86
			25	Thailand	84
			26	Taiwan	78
			27	Ecuador	76
			28	Venezuela	71
			29	Equatorial Guinea	57
			30	Unknown	52
			31	Finland	51
			32	Myanmar	51
			33	Georgia	50
			34	Jordan	48
			35	Kazakhstan	43
			36	Morocco	40
			37	Honduras	36
			38	Belgium	35
			39	Portugal	34
			40	Angola	33
			41	Dominican Republic	33

			42	Uganda	29
			43	Peru	28
			44	Slovenia	26
			45	Nigeria	25
			46	Cyprus	24
			47	Cameroon	23
			48	Czechia	23
			49	Eritrea	21
			50	France	18
			51	Rwanda	18
			52	Argentina	15
			53	Greece	15
			54	Lithuania	15
			55	New Zealand	15
			56	Sweden	14
			57	Uruguay	14
			58	Paraguay	12
			59	Denmark	11
			60	Ethiopia	11
			61	Croatia	9
			62	Switzerland	9
			63	United Nations**	9
			64	Austria	8
			65	Senegal	7
			66	Chad	6
			67	Hungary	5
			68	Mauritius	5
			69	SLA (Lebanon)*	5
			70	Bulgaria	4
			71	El Salvador	4
			72	Russia	4
			73	Zambia	4
			74	Seychelles	3
			75	Botswana	1
			76	Estonia	1
			77	Guinea	1
			78	Indonesia	1
			79	Lesotho	1
			80	African Union**	0
			81	Cote d'Ivoire	0
			82	Turkmenistan	0

Table-9: SIPRI TIV of Arms Exports to/from Canada, 1990-2019

EXPORTS TO CANADA			EXPORTS FROM CANADA		
Ranking	**Countries**	**Total**	**Ranking**	**Countries**	**Total**
1	United States	5298	1	United States	2112
2	United Kingdom	1552	2	Saudi Arabia	911
3	Switzerland	797	3	Australia	210
4	Netherlands	594	4	United Kingdom	131
5	Germany	258	5	UAE	129
6	Italy	198	6	Brazil	128
7	Sweden	155	7	India	125
8	Israel	137	8	France	118
9	France	128	9	Botswana	102
10	Australia	90	10	Mexico	96
11	Finland	36	11	Sweden	80
12	Greece	30	12	Taiwan	68
13	Norway	29	13	Greece	67
14	Unknown	20	14	Ireland	67
15	Kyrgyzstan	14	15	Portugal	66
16	South Africa	14	16	South Korea	63
17	Spain	12	17	Egypt	58
18	Denmark	1	18	Colombia	57
			19	Peru	56
			20	Denmark	54
			21	Netherlands	52
			22	Poland	41
			23	Indonesia	40
			24	South Africa	40
			25	Spain	40
			26	New Zealand	39
			27	Thailand	38
			28	Turkey	37
			29	Germany	34
			30	Chile	33
			31	Singapore	29
			32	Kenya	27
			33	Oman	27
			34	Viet Nam	27
			35	Uruguay	21
			36	Ecuador	19
			37	Israel	19
			38	Qatar	19
			39	Belgium	18
			40	Pakistan	18
			41	Afghanistan	16

			42	Angola	16
			43	Kazakhstan	16
			44	Argentina	15
			45	Iran	14
			46	Jordan	14
			47	Malaysia	14
			48	Morocco	14
			49	Philippines	14
			50	African Union**	13
			51	Iraq	13
			52	Algeria	12
			53	Ghana	11
			54	Romania	10
			55	Czechia	8
			56	Italy	8
			57	Laos	8
			58	Uzbekistan	8
			59	Dominican	7
			60	Finland	6
			61	Ukraine	6
			62	Lebanon	5
			63	Panama	5
			64	Slovenia	5
			65	Switzerland	5
			66	Bahrain	4
			67	Bulgaria	4
			68	Cambodia	4
			69	Cameroon	4
			70	Mali	4
			71	Venezuela	4
			72	Zambia	4
			73	Guatemala	3
			74	Nigeria	3
			75	Bangladesh	2
			76	Brunei	2
			77	Burkina Faso	2
			78	Cote d'Ivoire	2
			79	Croatia	2
			80	Djibouti	2
			81	Myanmar	2
			82	Benin	1
			83	Chad	1
			84	Cyprus	1
			85	Mauritania	1

B. TURKISH SUMMARY / TÜRKÇE ÖZET

Büyük güçlerin savunma endüstrileri, küresel güvenlik meselelerinde önemli bir rol oynamaktadır. Bunun yanı sıra, askeri teçhizatın üretimi ve transferinde tam bağımsızlık hedefine ulaşmayı amaçlayan bir süreç olarak savunma sanayileşmesi, devletlerin ulusal güvenlikle ilgili kaygılarının önemli bir ürünüdür. Savunma sanayileşme süreci ve bunun devletler ve devlet dışı aktörlerin hem ulusal hem de küresel düzeyde güvenlik kaygıları üzerindeki etkileri, özellikle yirminci yüzyılın başından beri, ileri askeri teknolojinin neden olduğu daha büyük yıkıcılığa sahip ve artan sayıdaki çatışma ve savaş nedeniyle, akademik araştırmalar için temel konular olmuştur. Yirminci yüzyılın sonlarından itibaren dünya küreselleşme çağına girerken, savunma sanayileşmesi kavramının yeni yüzyılın gereklerine göre detaylı olarak analiz edilmesi ihtiyacı artmıştır. Bu nedenle, yirmi birinci yüzyılın savunma sanayileşmesi, ilgili Uluslararası İlişkiler teorileri perspektifinden ve yeni çağın gelişen olayları göz önünde bulundurularak analiz edilmelidir, çünkü devletler ve devlet dışı aktörler, kooperatif savunma sanayileşme projelerine gün geçtikçe daha fazla dahil edilmektedir.

Güvenlik konusunda geniş çeşitlilikte çalışmalar yürütülmüş olup, bunların önemli bir kısmı savunma sanayileriyle ilgilidir. Önceki çalışmalar, anarşik dünya düzenine ilişkin benzer anlayışları nedeniyle savunma sanayisi ile güvenlik arasındaki ilişkiyi çoğunlukla Realist veya Liberal perspektiflerden incelemiştir. Bununla birlikte, literatür, *savunma sanayileşmesi* kavramıyla kapsamlı bir şekilde ilgilenmemiştir çünkü bu kavram, savaş veya güvenlik kavramlarına kıyasla nispeten yeni bir kavramdır. Dünya küreselleşme sürecine girdikçe, '*sanayileşme*'nin anlamı ve önemi, anarşi altında hayatta kalmanın gerekleriyle eş zamanlı olarak değişikliğe uğramıştır. Küreselleşme, devletler arası endüstriyel iş birliğini, belirsiz ve anarşik ortamda hayatta kalmalarını sağlamak için geçerli bir seçenek haline getirmiştir.

Bu çalışma, Bölgeselcilik ilkesine göre şekillenen 21. yüzyılın küresel savunma sanayileşme faaliyetleri açısından, devletlerin güç statülerinin diğer devletlere karşı işbirlikçi davranışlarını etkilediğini ileri sürmüştür. Bu tez, bir vaka çalışması tasarımını takip eder ve araştırmaya dahil edilmiş olan her bir devletinin savunma sanayileşme süreçlerine dair analizler içerir. Bu çalışmada dört vaka incelenecektir: her vaka yirmi birinci yüzyılda meydana gelmektedir ve aynı zamanda her biri önemli savunma sanayileşme geçmişine sahip silah tedarikçisi devletler olan büyük güçleri içerir. Bu çalışmanın verileri, gözlem ve görüşme gibi nitel yöntemler ile gazete, web sitesi, makale gibi diğer ortamlar da kullanılarak toplanmıştır.

Çalışmanın genel yapısı, altı bölüm şeklindedir. Tezin ikinci bölümü, başlangıçta en az 1979'dan beri bir terim olarak kullanılan savunma sanayileşme kavramını açıklamaktadır. Popüler tanıma göre savunma sanayileşmesi, devletlerin askeri teçhizat açısından dış arz konusunda bağımlılıklarını azaltmak için kendi iç teknik yeteneklerine yatırım yaptığı bir süreçtir. Tanım, bağımsız bir savunma sanayine sahip olma ile ulusal güvenliği sağlama arasındaki güçlü ilişki nedeniyle devletlerin savunma sanayileşme süreçlerine büyük önem verme eğiliminde olduklarını göstermektedir. Bu bölüm, Liberal ve Realist güvenlik ve savunma sanayileşme anlayışlarının karşılaştırılmasıyla devam etmektedir.

Hem Liberal hem de Realist teoriler, dünyanın, hayatta kalmanın devletler ve devlet dışı aktörlerin üzerindeki kapsayıcı bir otorite tarafından sağlanmadığı *anarşik* yapısını kabul eder. Bununla birlikte, iki teorinin *kendi kendine yardım* kavramına ilişkin yorumu, küresel savunma sanayileşme algılarını etkiler. Küresel savunma sanayileşmesinin liberal anlayışı daha aktör odaklıdır ve devletlerin anarşi düzeninde hayatta kalmaları için en rasyonel davranış olarak iş birliğine başvurması gerektiğini savunur. Özellikle Neoliberal kurumsalcı görüşün savunma sanayileşme faaliyetlerinde iş birliği gereksinimine ilişkin desteği, sürecin ekonomik boyutuna odaklanmasından kaynaklanmaktadır. Öte yandan Realist anlayış, Liberal rakibine göre daha sistem odaklıdır. Realizm yalnızca koşullu iş birliğini öngörür ve rekabetin aynı anarşik ortamda devletlerin baskın davranışı olduğunu savunur. Dahası, Neorealizm denkleme politik bir boyut ekleyerek, devletlerin küresel savunma

sanayileşme faaliyetleri açısından birbirleriyle rekabet etme eğiliminde olduklarını ve yalnızca belirli koşullar altında iş birliği yaptıklarını iddia eder. Son olarak, Neorealist anlayışa göre, göreceli güç, olası göreli kazanımlar ve hile olasılığı, devletlerin iş birliği faaliyetlerine girmeden önce dikkate aldıkları faktörlerdir.

Üçüncü bölüm, başlangıçta, bu çalışmaya konu olan devletlerin savunma sanayileşme süreçlerinin kısa bir özetini vermekte ve yirmi birinci yüzyılın savunma sanayileşme sürecinin eklektik bir yaklaşımla incelenmesi gerektiğini savunmaktadır. Üçüncü bölüm ayrıca sürecin analizi için Neorealist ve Neoliberal bir kurumsal arka plan ile birlikte Barry Buzan ve Ole Wæver'in Bölgesel Güvenlik Kompleksi Teorisini (BGKT), Robert Gilpin'in Bölgeselcilik ve Yeni Ekonomik Coğrafya (NEG) teorilerini seçmenin nedenlerini açıklamaktadır. Bu çalışma, her bir devletin savunma sanayileşme sürecine ilişkin kısa bir tarihsel arka plan sağladıktan sonra, savunma sanayileşmesinin siyasi boyutunu ekonomik ve teknolojik boyutlarıyla açıklamaya devam etmektedir.

Dördüncü bölüm, sürece dahil olan devletlerin farklı düzeylerde iş birliğine dayalı ve rekabetçi davranışlarını araştırmak için küresel savunma sanayileşmesinin tarihsel arka planını gözden geçirmektedir. Zaman çizelgesinin başlangıç noktası MÖ 399'da mancınık icadı olarak seçilmiş olsa da bu bölümün büyük bir kısmı, küresel çağ savunma sanayileşmesinin büyük ölçüde o dönemin gelişmelerinden etkilendiği yirminci yüzyıla odaklanmaktadır. Tarihsel arka plan incelemesi 2019'un sonuna kadar ilgili gelişmeleri takip etmektedir.

Tarih boyunca, küresel ve ulusal savunma sanayileşme süreçlerinde özel teşebbüslerin üstünlük sağladıkları zamanlar olmasına rağmen, birincil denetleyici aktör çoğu zaman devlet olmuştur. Devletler, siyasi, ekonomik ve teknolojik hedeflerini gerçekleştirmek için küresel savunma sanayileşme sürecinde iş birliği yapar. Küresel savunma sanayileşme sürecinde iş birliğinin, 'zor yoldan öğrenme' prensibine göre ilerlediği söylenebilir. Devletler, küresel savunma sanayileşmesinin ilk aşamalarında iş birliğinin olası tehditlerine ve belirsizliklerine karşı daha keskin önlemler uygulama eğiliminde olmalarına rağmen, zaman geçtikçe, ihracat lisansı alınmasını zorunlu kılma veya ambargolar gibi alternatif koruma yöntemlerini uygulayarak hem güvenli

tarafta kalıp hem de iş birliği faaliyetlerine devam ettiler. Sonuç olarak devletler ulusal teminatlarını korumayı ve savunma sanayileşmesi açısından küresel iş birliğini geliştirmeyi başardılar.

Soğuk Savaş'tan sonra dünya yavaş yavaş küreselleşme dönemine girerken iş birliği ve karşılıklı bağımlılık karşılıklı olarak gelişti. Sonunda, bu iki özellik küreselleşmenin karakteristiği haline geldi. Bu özellikler, küresel savunma sanayileşme sürecine de yansıdı; ancak, Neoliberal kurumsal anlayışın iddia edeceği gibi, devletler arasındaki ne iş birliğinin ne de karşılıklı bağımlılığın yalnızca devletlerin ekonomik isteklerinden etkilendiği söylenebilir. Küresel savunma sanayi iş birliklerinde devletler maliyet azaltma gibi ekonomik hedeflerinin yanı sıra, ittifak kurma gibi siyasi hedeflerini gerçekleştirmek için de birbirlerine bağımlı hale geldiler. Küreselleşme dönemi aynı zamanda devletleri, teknik becerilerini geliştirmek ve rakiplerine karşı teknik üstünlük kazanmak için savunma sanayileşmesi konusunda iş birliği faaliyetlerine girişmeye teşvik etti. Neoliberal kurumsal ideolojiye göre, anarşik dünya düzeninin bütünleşik ve birbirine bağımlı özelliklerinden dolayı devletler ve devlet dışı aktörler iş birliğine sıklıkla başvurmalıdır. Öte yandan Neorealist anlayış, iş birliğinin anarşi altında bile, yalnızca bir tehdidi dengelemeye ve daha üstün teknolojik yetenekler geliştirmeye çalışıldığında geçerli bir seçenek olduğunu savunmaktadır. Her iki ideoloji de iş birliği ihtiyacını, en azından bir dereceye kadar kabul eder; ancak her iki anlayış da savunma sanayileşme sürecini açıklamak için yeterli değildir.

Küresel savunma sanayileşmesinin erken dönemleri, devletlerin korumacılığı ve üretim üzerindeki kontrolü, var olmayan devletler arası ticaret ve devlet dışı aktörlerin bulunmaması gibi birkaç faktörden dolayı saf Realist bakış açısıyla açıklanabilse de tarihsel arka plan, saf bir Realist veya Neorealist açıklamanın zaman içinde meydana gelen politik, ekonomik ve teknolojik gelişmeleri açıklamada başarısız olduğunu gösterir. Daha ekonomi odaklı ve kapsayıcı bir anlayışa duyulan ihtiyaç, özellikle yirminci yüzyılın başından itibaren devletler ve devlet dışı aktörler savunma sanayileşme faaliyetleri yürütmeye başladıkça görünür hale gelmiştir. Ancak liberal anlayış, sistemin ekonomik özelliklerine politik özelliklerden daha fazla değer verdiği

için küresel savunma sanayileşmesini de tam olarak açıklayamamaktadır. Bu nedenle bu çalışmada, küresel savunma sanayileşme süreci içerisinde devletlerin işbirlikçi davranışlarını araştırmak için Realist ideolojinin siyasal ve iktidarla ilgili açıklamalarını ve Liberal anlayışın teknolojik ve ekonomiye ilişkin açıklamalarını içeren eklektik bir yaklaşım kullanılmıştır.

Küresel savunma sanayileşme sürecinin baskın lideri, güçlü bir endüstriyel ve teknolojik bilgi birikimine sahip Amerika Birleşik Devletleri (ABD) olduğundan, birçok devlet için savunma sanayi iş birliği projelerinde en çok arzu edilen iş birliği ortağı olmuştur. ABD ile savunma sanayi ortaklığı, küresel savunma sanayileşme sürecindeki lider konumu nedeniyle ortaklığın her iki tarafına da siyasi, ekonomik ve teknolojik faydalar sağlama konusunda son derece umut verici görülmekteydi. ABD ile savunma sanayileşme projelerinde iş birliği yapan diğer devletler, güç dengesinin yeniden şekillendiği yirmi birinci yüzyılın rekabetçi küresel ortamında bu iş birliğinin siyasi boyutlarından çoğunlukla yararlanmıştır. Bu nedenle, ABD'nin Buzan ve Wæver'in geliştirdiği modele dayanan *süper güç* statüsü, yirmi birinci yüzyılın ikinci on yılının sonu itibariyle küresel savunma sanayileşme süreci için de geçerlidir.

Tarihsel gelişmeler, küresel savunma sanayileşme sürecinin uzun süredir değişmekte olduğunu göstermiştir. Süreç ulusal bir kavram olarak doğmuş, küreselleşerek gelişmiş ve Gilpin'in Bölgeselci Yeni Ekonomik Coğrafya (NEG) teorisiyle önerdiği gibi, 2020 itibarıyla Küresel-Bölgesel bir konuma gelmiştir. Bu nedenle, yirmi birinci yüzyılın küresel savunma sanayileşme sürecini analiz etmek için Bölgeselci bir yaklaşım benimsemek gereklidir; dolayısıyla, Buzan ve Wæver'in geliştirmiş olduğu model ve Bölgesel Güvenlik Kompleksi Teorisi (BGKT), üç küçük değişiklik ile, yirmi birinci yüzyılda küresel savunma sanayileşme sürecini analiz etmek ve eklektik yaklaşımı desteklemek için bu çalışmaya dahil edilmiştir. Değişiklikleri sunmadan önce Buzan ve Wæver'in teorisinin ve modelinin bu çalışmaya katkısını açıklamak gerekir.

Birincisi, Liberalizm ve Realizm türleri olarak Neoliberal kurumsallaşma ve Neorealizm, anarşik dünya düzeninin ekonomik, politik ve askeri özelliklerine odaklanmaları nedeniyle güvenlik ve savunma sanayileşmesi kavramlarını açıklamak için yararlı teorilerdir. Ancak yine de yirmi birinci yüzyılın savunma sanayileşme

süreci bölgesel bir konuma ulaştığından, ek bir boyuta daha ihtiyaç vardır. Gilpin gibi Neorealistler bölgelerin önemini bir ölçüde kabul etseler de Neorealizmin devlet aktörüne kapsamlı odaklanması (benzer şekilde, Liberalizmin küreselleşmeye kapsamlı odaklanması), savunma sanayileşme sürecini daha iyi analiz etmek için bu çalışmaya başka bir bakış açısının dahil edilmesini gerektirmektedir. Ayrıca, Gilpin gibi Neorealistler bölgeselliği tarihsel tesadüflere atfetmeye ve bu bölgelerdeki ilişkileri basit *çekirdek-çevre* modellerine göre yorumlamaya meyilli olduğundan, Neorealizm'in bölgeciliği, küresel savunma sanayileşme sürecini etkileyen bölgesel *dostluk* ve *düşmanlık* kalıplarını açıklamakta yetersiz kalmaktadır. Benzer şekilde, Neoliberal kurumsalcı teori, bölgesel savunma sanayi iş birliği ve düşmanlık ve dostluk kalıpları nedeniyle yürütülen rekabet faaliyetlerini açıklamak yerine, ekonomik kaygılardan kaynaklanan savunma sanayileşme faaliyetlerinin bölgeselleşmesini göstermede daha yararlıdır. Nitekim bu çalışma, Buzan ve Wæver'in BGKT'si ve 1 + 4 + x modeli ile Neorealist ve Neoliberal kurumsalcı açıklamaları birleştirerek, *güvenlikleştirme* kavramının kapsamında gördüğü, büyük güçlerin savunma sanayileşme faaliyetleri açısından işbirlikçi davranışlarını araştırmıştır.

İkinci olarak, Buzan ve Wæver'in teorisine yansıyan 1 + 4 + x modeli, büyük savunma sanayicilerinin güç durumlarının iş birlikçi davranışları üzerindeki etkilerini analiz etmek için açıklayıcıdır. Buzan ve Wæver'in güç sınıflandırmasının açıkladığı *süper güç, büyük güç, bölgesel güç* statüleri ve *yalıtkan* ülkeler, yirmi birinci yüzyılın küresel savunma sanayileşme sürecinde de yer almaktadır. Yalıtkan ülke kavramı, küreselleşme döneminin savunma sanayileşme sürecindeki işbirlikçi devlet davranışını açıklamada BGKT'yi yararlı kılan faktörlerden biridir.

Bölgesel Güvenlik Kompleksi Teorisi küresel savunma sanayileşme sürecine uygulandığında, teorinin tanımladığı dört ana bölgenin hepsinin, süper güç ABD'yi çekirdek olarak içerdiğini iddia etmek yanlış olmayacaktır, çünkü ABD'nin tesir etme (penetration) yoluyla diğer aktörleri etkileme kabiliyeti yüksektir. Ek olarak, büyük güçler veya bölgesel güçler şeklindeki tüm çevre devletler, çekirdek etrafında konumlanmıştır. Çekirdekteki ABD, küresel savunma sanayileşmesinin bölgelerinin varsayılan şeklini oluşturur; ancak, bir veya daha fazla büyük gücün olduğu

bölgelerde, ABD çekirdeği bir büyük güçle paylaşmaktadır. Dört ana bölgenin tamamı, savunma sanayileşme faaliyetleri açısından ABD'nin güçlü müttefikleri olan bölgesel güçleri içerir. Bölgesel düzeyde, aralarında yürütülen iş birliği projeleri düşünüldüğünde, bu bölgesel güçler ABD çevresinde *çevresel* (peripheral) konuma geçmektedir. Güçlerin bölgesel düşmanlıkları veya dostlukları, her bölgenin sahip olduğu ilişki modelini etkiler.

Yirmi birinci yüzyılda küresel savunma sanayileşme sürecini analiz etmek için Buzan ve Wæver'in teorisi ve modelinde yapılan ilk değişiklik, Rusya'yı Avrupa süper kompleksinin bir üyesi yerine Asya süper kompleksinin bir üyesi olarak sınıflandırmak olacaktır, çünkü Rusya, Çin ve Hindistan Asya süper kompleksine ait büyük güçlerle daha güçlü dostluklar geliştirmektedir.

İkinci değişiklik, modelin büyük güçleriyle ilgili olabilir. Japonya'nın büyük güçler grubundaki diğer devletlere kıyasla mevcut konumu ve güç durumu göz önüne alındığında, yirmi birinci yüzyıl küresel savunma sanayileşme süreci açısından büyük bir güç yerine bölgesel bir güç olarak sınıflandırılması daha anlamlıdır.

Buzan ve Wæver'in model ve teorisinin son değişikliği Çin ile ilgilidir. Buzan ve Wæver, Çin'i büyük bir güç olarak sınıflandırsa da küreselleşme dönemindeki vaka çalışmaları, Çin'in etki alanı ve Amerika Birleşik Devletleri'nin dengeleyici davranışı nedeniyle büyük bir güçten daha fazlası olduğunu göstermektedir.

Beşinci bölüm, dört ayrı vaka çalışmasına odaklanan toplanan verileri sunmaktadır. Her vaka çalışması, süper, büyük veya bölgesel güç durumlarına sahip birden fazla konu devletini içermektedir. Bu çalışmanın bulgularına göre, incelenen tüm devletler, bölgelerinin içinde veya dışında diğer devlet veya devlet dışı aktörlerle savunma sanayileşme ilişkilerinde bulunurken rekabetçi veya iş birliğine dayalı davranışlar sergilemektedir.

Bu tezin ilk vaka çalışmasının incelediği ülkeler süper güç ABD, büyük güç Rusya ve bir bölgesel güç ve aynı zamanda yalıtkan devlet olan Türkiye'den oluşmaktadır. Beşinci bölümün ilk alt bölümünde, başlangıçta Amerikan F-35 Joint Strike Fighter (JSF) programı, programa Türk katılımı, Rus yapımı S-400 füze sistemlerinin Türkiye

tarafından tedariki ve Türk T129 ATAK helikopterlerinin Pakistan'a satışı, ABD, Rusya ve Türkiye'nin siyasi, ekonomik ve teknolojik yeteneklerine atıfta bulunularak detaylı bir şekilde sunulmuştur. Bu çalışmada, Türkiye'nin Rusya'ya yönelik iş birliği hamlesine yanıt olarak, Türk savunma sanayileşme sürecinde ABD'nin 'süper' gücünü nasıl kullandığı incelenmiştir. Bu bölümde, Rusya'nın konuya müdahil olmasının ve Türkiye'nin yalıtkan statüsünün, ilgili devletlerin rekabetçi davranışlarını anlamak için en önemli belirleyiciler olduğu da tartışılmıştır.

İkinci vaka, savunma sanayileşme süreci açısından süper güç ABD, büyük güç Çin ve bölgesel güç Güney Kore'nin işbirlikçi davranışlarını araştırmaktadır. Güney Kore, bölgesel güvenlik kaygıları nedeniyle ABD yapımı füze savunma sistemlerini ülkesinde konuşlandırdıktan sonra, bu tür bir işlemin bölgesel dengeyi ve güvenliği bozacağı gerekçesiyle Çin tarafından ciddi itiraz ve yaptırımlarla karşı karşıya kalmış ve çatışma, Güney Kore'nin bölgesel güvenlik endişeleri nedeniyle yeniden bir yerli kalkınma projesine devam etme kararıyla sonuçlanmıştır. Kore vakası, Çin'in Asya-Pasifik bölgesinde süper güç ABD karşısında önemli bir büyük güç olarak yükseldiğini, aynı zamanda önemli bir bölgesel güç olan Güney Kore'yi olası siyasi, ekonomik, ekonomik ve politikalar ve ABD ile daha fazla iş birliği ile vaat edilen teknolojik fırsatlar pahasına ılımlı politikalar benimsemeye zorladığını göstermektedir.

Üçüncü vaka çalışması, ABD'yi bir süper güç olarak ele almakta; Avrupa Birliği, Rusya ve Çin büyük güçler olarak; Hindistan, İsrail, Kanada ve Güney Kore ise bölgesel güçler olarak incelenmektedir. Vaka çalışmalarına ayrılmış son bölümün üçüncü alt bölümü, ABD kontrollü bir uydu sistemi ile Avrupa Birliği'ne üye devletlerin memnuniyetsizliğinin tarihsel arka planını sunduktan sonra, Avrupa Birliği yapımı uydu sistemi Galileo'nun evrimini kısaca Avrupa bölgesel iş birliği ve süper güç ile nüfuz etme sonucu entegrasyona atıfta bulunarak açıklamaktadır. Bölüm ayrıca bu çalışmada yer alan teorilere atıfta bulunarak projeye dahil olan büyük güçlerin iş birliği davranışlarını da araştırmaktadır.

Bu tezin son vaka çalışması, Avustralya denizaltı programının geliştirilmesine odaklanmaktadır. Önceki vakalarda olduğu gibi hem Buzan hem de Wæver'in

geliştirdiği ülkelerin güçlerini açıklayan model ve SIPRI verilerine göre, son vaka süper güç olarak ABD'yi, büyük güçler olarak Fransa ve Japonya'yı ve bölgesel güç olarak Avustralya'yı kapsamaktadır. Vaka, Avustralya'nın yeni bir denizaltı geliştirme programı başlatma kararını ve bunu izleyen program ortağı seçme aşamasını araştırmaktadır. Avustralya'nın savunma sanayileşme sürecinde iş birliğine ilişkin nihai kararı, teknolojik kaygılardan oldukça etkilenmesine rağmen; nihai karar aşamasına kadar denizaltı geliştirme programı için iş birliği ortağını seçme konusunda sahip olduğu farklı yaklaşımlar, küreselleşme çağında ABD, Çin ve Japonya'nın güç durumlarının bölgesel güvenlik hususları üzerindeki etkilerini göstermektedir.

Her bir vaka çalışması, devletlerin küresel güç durumlarının, küresel savunma sanayileşme faaliyetleri açısından işbirlikçi davranışlarını etkilediğini göstermektedir. 21. yüzyılın baskın özelliği olarak küreselleşme, iş birliğini devletler ve devlet dışı aktörler için kaçınılmaz bir etkileşim yolu haline getirmiştir. Gilpin'in Stratejik Ticaret Teorisi'nde de belirttiği gibi, küresel, birbirine bağımlı ve birbirine bağlı bir ortamda, devletlerin ulusal güvenlik kaygıları ile bağlantısı nedeniyle kapsamlı bir devlet korumasına tabi olması beklenen savunma sanayileşme faaliyetlerinde bile devletler birbirleriyle acil iş birliği yapma ihtiyacı hissetmektedir. Ayrıca, belirli savunma sanayileşme yeteneklerine zaten sahip olan devletler, bu yeteneklerini nispeten daha az para ve zaman kaynaklarıyla sürdürmek ve yeteneklerini daha da geliştirmek için iş birliği yapmaktadır. Küreselleşme çağında, bu 'yetenekli' devletler, söz konusu iş birliği oldukça çatışmalı ve belirsiz bir ortamda gerçekleşirken bile, siyasi konumlarını iyileştirmek için savunma sanayi ittifakları da kurma eğilimindedir.

Hem tarihsel arka plan hem de vaka çalışmaları, yirmi birinci yüzyılın savunma sanayileşme sürecinin küreselden bölgesel düzeylere geçiş aşamasında olduğunu göstermiştir. Dünyanın komşular arasındaki dostluk ya da düşmanlık kalıplarına göre şekillenen bölgelerinde küresel savunma sanayileşmesi açısından iş birliği ve rekabet ortaya çıkmaktadır. Buna ek olarak, süper gücün veya büyük bir gücün nüfuz etmesi ile bu bölgeler arasında iş birliği ve rekabet oluşmaktadır. Devletler ve devletler tarafından kurulan bölgesel ittifaklar, iş birliğine dayalı veya rekabetçi bir yapıda savunma sanayileşme faaliyetleri yürütür; ancak, politik, ekonomik ve teknolojik

avantajlarını artırmak için genellikle çok taraflı ve bölgesel projelerde yer almayı tercih ederler. Bu tür çok taraflı yapılara dahil olmamayı tercih ettiklerinde bile, işbirlikçi ve rekabetçi davranışları ve küresel ortamdan aldıkları tepkiler, ait oldukları bölgelerin özelliklerinden etkilenmektedir.

Bu çalışma, Buzan ve Wæver'in Bölgesel Güvenlik Kompleksi Teorisi ve 1 + 4 + x modeli üzerinde değişiklikler yaparak ve bunu Gilpin'in bölgeselci Yeni Ekonomik Coğrafya teorisi, Neoliberal kurumsalcı ve Neorealist arka planlar ile birleştirerek yukarıda bahsedilen bölgeleri ve üyelerini tekrar tanımlamıştır. Dünyanın dört ana bölgeden oluştuğu ve her bölgenin merkezinde süper güç ABD olduğu öne sürüldükten sonra, bu bölgelerin aynı zamanda çekirdekte yer alan süper gücün çevresindeki çevre devletleri de barındırdığı savunulmuştur. Bahsi geçen çevre devletler, ele alınan bölgeye göre değişmekle birlikte, büyük güç veya bölgesel güç olarak tanımlanabilmektedir.

Bu çalışmanın öne sürdüğü 'yeni' dünya düzenine göre, Asya süper kompleksinde, Çin, çekirdek ve çevre arasında "geçiş yapan" bir büyük güçtür ve Asya süper kompleksinin çevre aktörleri büyük güç Rusya, bölgesel güçler Japonya, Güney Kore, Avustralya ve Hindistan olarak belirlenmiştir. Orta Doğu ve Afrika Bölgesel Güvenlik Kompleksleri'nin (BGK) savunma sanayileşme yetenekleriyle öne çıkan tek önemli çevre aktörü, bir bölgesel güç olan İsrail'dir. Avrupa süper kompleksi bir süper süper kompleks değil, yalnızca Buzan ve Wæver'in teorisi tarafından halihazırda belirlenmiş olan Batı Avrupa BGK'sinden oluşan bir Bölgesel Güvenlik Kompleksidir. Bu nedenle, yeni Avrupa BGK'sinin tek çevresel aktörü, bir büyük güç olarak kabul edilen Avrupa Birliği'nin kendisidir. Türkiye, yeni Avrupa BGK'si ile Orta Doğu ve Afrika'daki BGK'ler arasında hiçbir bölgeye dahil olmaksızın yalıtkan bir ülke olmaya devam etmektedir. Son olarak, bu çalışmaya Amerika kıtalarında yer alan BGK'lerin bir üyesi olarak dahil edilen tek çevresel devlet, yine bir bölgesel güç olan Kanada'dır.

Özetlemek gerekirse, küresel savunma sanayileşme sürecindeki en belirgin iş birliği ve rekabet modellerinin anarşik dünya düzeninin belirli ana güçleri arasında gözlemlendiği söylenebilir. Bu büyük güçler, Buzan ve Wæver'in çerçevesinin özelleştirilmiş ve değiştirilmiş bir versiyonu olan bir grup yaratmıştır. Bu yeni ve

özelleştirilmiş versiyon, sayısal olarak "1 + 1 + 2 + 7" olarak modellenebilir. Detaylandırılacak olursa, yirmi birinci yüzyılın ‘global’den ‘bölgesel’e geçiş aşamasındaki dünyasında, bir süper güç Amerika Birleşik Devletleri; bir "büyükten ‘süper’e geçiş" gücü olarak Çin; iki büyük güç Avrupa Birliği ve Rusya ve yedi bölgesel güç, Japonya, Hindistan, Güney Kore, Türkiye, Avustralya, İsrail ve Kanada bulunmaktadır. Bu on bir büyük aktörün ait oldukları veya ait olmadıkları bölgelerden etkilenen güç statüleri, Soğuk Savaş döneminin sonundan itibaren küresel savunma sanayileşmesi kapsamındaki iş birlikçi davranışlarını etkileyen en önemli faktörlerden biri olmuştur. Öyle görünüyor ki, böyle bir etki, bu çalışmaya konu olan ve yukarıda bahsedilen devletlerin gelecekteki savunma sanayileşme iş birliği faaliyetlerinde daha da büyüyen bir endişe kaynağı olma potansiyeline sahiptir.

C. THESIS PERMISSION FORM / TEZ İZİN FORMU

ENSTİTÜ / INSTITUTE

Fen Bilimleri Enstitüsü / Graduate School of Natural and Applied Sciences ☐

Sosyal Bilimler Enstitüsü / Graduate School of Social Sciences ☒

Uygulamalı Matematik Enstitüsü / Graduate School of Applied Mathematics ☐

Enformatik Enstitüsü / Graduate School of Informatics ☐

Deniz Bilimleri Enstitüsü / Graduate School of Marine Sciences ☐

YAZARIN / AUTHOR

Soyadı / Surname : Akbay
Adı / Name : Özde Aslı
Bölümü / Department : Uluslararası İlişkiler / International Relations

TEZİN ADI / TITLE OF THE THESIS (**İngilizce** / English): GLOBAL DEFENSE INDUSTRIALIZATION AND COOPERATIVE BEHAVIORS OF MAJOR POWERS

TEZİN TÜRÜ / DEGREE: **Yüksek Lisans** / Master ☒ **Doktora** / PhD ☐

1. **Tezin tamamı dünya çapında erişime açılacaktır. /** Release the entire work immediately for access worldwide. ☒
2. **Tez iki yıl süreyle erişime kapalı olacaktır.** / Secure the entire work for patent and/or proprietary purposes for a period of **two years. *** ☐
3. **Tez altı ay süreyle erişime kapalı olacaktır.** / Secure the entire work for period of **six months**. ***** ☐

***** *Enstitü Yönetim Kurulu kararının basılı kopyası tezle birlikte kütüphaneye teslim edilecektir. / A copy of the decision of the Institute Administrative Committee will be delivered to the library together with the printed thesis.*

Yazarın imzası / Signature ..... **Tarih** / Date .....
(Kütüphaneye teslim ettiğiniz tarih. Elle doldurulacaktır.)
(Library submission date. Please fill out by hand.)

Tezin son sayfasıdır. / This is the last page of the thesis/dissertation.