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A Vanguard of Foreign Policy over Maritime Claims: Naval Power rather than National Power

Jonghwan Han*

Republic of Korea Navy, Gyerong, Republic of Korea

Most quantitative studies about maritime claims use national power measured by gross indicators, such as the CINC score, to explain disputants' foreign policy leverage over maritime claims. The basic assumption in using national power to analyze issues over maritime claims is that wealthier, more developed, more populous countries can transfer abundant resources into military potentials, which enables them to have stronger foreign policy leverage over maritime claims. This research does not attempt to deny this assumption. This study, however, argues that based on the inherent advantages of naval power to project power over the sea, naval power measured by the total tonnage of warships is theoretically better and empirically different from national power, and the usage of naval power enhances understanding about disputants' foreign policy behaviors over maritime claims. Therefore, I conclude that naval power rather than national power is a better and more tailored indicator to explain issues, especially the occurrence of militarized disputes over maritime claims.

Keywords: naval power, national power, the CINC score, maritime claims, MIDs over the NLL

Introduction

Since the 1980s, in tandem with its naval modernization, China has consolidated sovereignty and sovereign rights in the South China Sea. For example, the declaration of Chinese Territorial Law of the Sea in 1992 which argued for sovereignty in most of the South China Sea, Chinese military occupation of two reefs in the South China Sea: the Da Lac Reef (Vietnamese-claimed) in 1992 and the Mischief Reef (the Philippines-claimed) in 1995, and ongoing constructions of artificial islands have been the results

* E-mail: narugger@gmail.com

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of China's steady naval development.[1] To respond to the Chinese assertive behaviors in the South China Sea, direct disputants, such as Vietnam and the Philippines, as well as indirect third parties, such as the United States and Japan, have dispatched naval warships to deter the excessive Chinese claims. For instance, in October 2018, a close and an unsafe encounter occurred between the *USS Decatur* and the Chinese naval warship, *Lanzhou*, in the South China Sea. At that time, the *USS Decatur* conducted the Freedom of Navigation Operation to challenge the assertive Chinese claims in the South China Sea, whereas the Chinese destroyer protested against the maneuvering of the U.S. naval warship.[2]

As the South China Sea disputes show, it is no wonder that naval warships rather than tanks (Army) or fighters (Air Force) are the main means for coastal states to deal with issues over maritime claims.[3] However, many quantitative studies about maritime claims have not reflected this reality. In other words, most quantitative studies about issues, ranging from peaceful settlement options to militarized disputes over maritime claims use national power based on the Composite Index of National Capability (CINC) score[4] to capture disputants' foreign policy leverage over maritime claims.

This is not the first literature to suggest that it is necessary to use a more tailored indicator rather than gross indicators, such as the CINC score, to represent states' power in explaining a specific issue. For example, Hendrix suggests potential problems with the CINC score to reflect states' repressive capacities in the civil war study.[5] Gibler reveals that national power measured by the CINC score rarely changed to explain the onset and management of international conflicts.[6] However, the CINC score has been routinely adopted as a "rough but reliable" indicator of national power in explaining militarized conflicts as well as cooperation among states.[7] This research does not deny the usage of national power based on the CINC score. This study argues that (1) given that national power (the CINC score) is not the only available indicator to represent disputants' foreign policy leverage over maritime claims, (2) given that there are empirical and theoretical reasons to adopt a specific proxy (naval power) to capture states' capacities to explain issues over maritime claims, and (3) given that the usage of the specific proxy (naval power) enhances understanding about issues over maritime claims, it is necessary to use the more tailored indicator (naval power) to analyze foreign policy behaviors over maritime claims. For this purpose, this research starts from the definition of maritime claims and naval power.

Maritime Claims and Naval Power

Maritime Claims

According to the Issue Correlates of War (ICOW) project,[8] maritime claims occur when official representatives[9] of two countries' governments contest sovereignty and

sovereign rights over the access and usage of maritime space. It does not require any specific forms of contention. In other words, it includes diplomatic quarrels as well as militarized interstate disputes (MIDs)[10] over disputed maritime areas.[11] The South China Sea disputes are common examples of maritime claims.[12]

Without a doubt, maritime claims occur to expand sovereignty at sea or sovereign rights over resources at sea. In other words, main disputed areas over maritime claims are the seas, but this simple fact means a lot to investigate disputants' foreign policy behaviors over maritime claims because physical and geographical characteristics of maritime areas are not comparable to land. When compared to land that can be permanently occupied, owned, controlled, and protected,[13] permanent occupation of the sea is impossible, thus it is difficult to monitor and govern maritime areas by formal authorities.[14] Conquering and possessing the sea, therefore, is not a general objective of maritime operations. In addition, typically maritime claims occur for the following reasons—setting maritime borderlines and using natural resources—that can be summarized as disagreements over "access" not "occupation." Furthermore, when considering the location of maritime claims in which disputed areas are far from the homeland and are in the middle of the sea, disputants do not have many options to deal with maritime claims. The sea stops power projection.[15] In other words, for coastal states, conducting pacificatory or aggressive foreign policy to influence opponents over maritime claims requires the means to overcome the obstacle (the sea) to project power in disputed maritime areas.

Naval Power

Before defining the concept of naval power, sea power should be defined first because naval power is a subset of sea power. In a broad definition, sea power means the usage and control of the sea that requires military force, especially naval force as well as private fields related to the sea which can promote maritime economy.[16] In other words, sea power is not only for conflict and military purposes but also for non-military aspects.[17] Similarly, Till mentions that like its constituent, power, sea power has the meaning of both an input and an output. Sea power as an input means navies, coast guards, and civilian maritime industries, while sea power as an output means capacity to influence behaviors of other states at sea.[18] Therefore, naval power means military capacity of sea power that can operate at sea to influence other states' behaviors.

As Booth mentions, historically, naval power has been used as a vanguard of diplomacy at sea.[19] For example, to open Japanese ports and establish diplomatic relations with Japan, the United States sent naval warships commended by Commodore Matthew Perry in the 1850s. Recently, as a part of the Freedom of Navigation Operations (FONOPs), the United States has deployed its modernized naval warships to protest the excessive Chinese claims in the South China Sea. Given that states' foreign policy behaviors at sea are a function of naval power, how to conceptualize

naval power should be considered because navies are platform-based military service, and there is a various array of naval platforms with different shapes, mobility, weapon systems, and purpose.

I consider two factors: size and type of naval platforms. First, concerning the size (tonnage) of naval platforms, it is difficult to say that all naval platforms ranging from small patrol boats to aircraft carriers are directly related to capacity to project power over the sea. When considering the concept of power projection, the ability to deploy military force beyond its borders,[20] naval platforms should be able to navigate longer distances and to stay at sea for a long period of time. Accordingly, small warships or patrol boats for the purpose of coastal operations should be excluded from the concept of naval power. Commonly, 1,000 tons has been regarded as the minimal criterion to determine whether warships can operate offshore or not. Relatedly, Grove investigated world navies and found that among four types of warships—cruiser, destroyer, frigate, and corvette—which can operate in distance waters, the tonnage of smallest type of warships, corvette, ranges from 500 to 1,750 tons in which the median value is approximately 1,000 tons.[21] In addition, based on the investigation about the history of naval warships, Lemke finds that a state which has at least 10 naval warships of 1,000 tons can be regarded as having the capacity to project power over their region.[22] Therefore, with regard to the size (tonnage), naval platforms less than 1,000 tons, which do not have capacity to project power, are excluded to conceptualize naval power.

Second, the types of naval platforms should be considered. Rather than auxiliary ships for the purpose of supporting warships, major warships which have the capacity to attack and defend, such as aircraft carriers, cruisers, destroyers, frigates, and submarines, should be the main consideration in conceptualizing naval power. The selection of these types of warships is not arbitrary. As Mahan mentioned, the strength of the navy is obviously reflected by the number of warships which decisively affects the consequence of war at sea.[23] In addition, historically, the number of major warships has been a main concern for decision makers to determine the size of opponents' naval power.[24] For example, major warships were the main consideration for great powers to set up the size of great powers' navies at the Washington Naval Conference in 1922. In sum, for this study, naval power can be conceptualized as naval strength based on major warships over 1,000 tons to project power at sea.[25]

What Makes Naval Power Special in Foreign Policy over Maritime Claims

During the Cod Wars in the 1950s and 1970s, for the United Kingdom, deploying naval warships was one major tool to protest against Iceland's unilateral expansion of maritime areas.[26] During the Turbot War in the 1990s, Spain sent naval warships to protect their fishing fleet near the Canadian offshore. In response to this, Canadian

patrol vessels supported by a naval destroyer conducted an operation to seize Spanish trawlers.[27] As these examples show, maritime claims are primarily conducted by claimants' official navies.[28] In this case, what characteristics of naval power make naval power a useful instrument of diplomacy over maritime claims? The answer can be summarized as strength of naval power to project power over the sea, maneuverability and persistence at sea without the infringement of other states' sovereignty, and symbol of sovereignty of naval warships.

First and foremost, the utility of naval power over maritime claims is highly related to its strength of power projection. For states, it is nearly impossible to interact with other states without power projection capability. Without power projection capability, states cannot pursue not only aggressive foreign policies, such as engaging in war, but also pacificatory foreign policies, such as negotiations. The geographic characteristic of the sea says that states do not have many options other than naval power to respond to issues over maritime claims. When states project power over disputed maritime areas, they face many constraints, such as distance and the presence of the sea itself. Naval power can alleviate these limitations. As Mearsheimer mentions, power projection over land and power projection at sea are fundamentally different due to the presence of the sea itself which stops power projection.[29] However, the concept of "the stopping power of water" does not reflect the double-sidedness of the sea that can be used as an efficient means to project power with appropriate navies as well as a barrier to stop power projection without proper navies. In other words, the sea can be a highway or a barrier depending on whether or not states have an appropriate level of naval power.[30]

Historically, before the emergence of air power and even today, naval power has been a major means to deploy military force at sea. The army cannot project its force at sea without naval platforms because the sea stops the army's power projection. The air force also has limitations in responding to issues at sea due to its limited operational time and area. Indeed, naval power can only be used to project military power over disputed maritime areas that are located far from the mainland and isolated by the sea. Therefore, among different types of military services, naval power has been an effective and efficient type of force to project military power in the middle of the sea.

When considering that most maritime claims occur in the middle of the sea, naval power allows states to overcome the problem of the stopping power of water, makes states travel greater distances,[31] and enables them to reach out to disputed maritime areas. For example, during the Falkland Islands disputes, one obstacle that the United Kingdom had to overcome was that the Islands are located approximately 8,000 nautical miles from the homeland.[32] Regardless of the strength of national power of the United Kingdom, without the preponderant Royal Navy, it would be impossible for the United Kingdom to conduct sea blockade and amphibious assaults on the Falkland Islands, and win the war.

Second, in terms of maneuverability, of course, other types of military services, such as the army and air force, possess a certain level of maneuverability to deploy

their force beyond borders. However, what makes naval power exceptionally superior than other types of military services is that naval power can be deployed for a long period of time without the encroachment of other states' sovereignty. According to the United Nations Convention on the Law of the Sea (UNCLOS),[33] all ships have a right to freely navigate all maritime areas. Even though there are some conditions depending on maritime areas, basically, naval warships can also enjoy the freedom of navigation. For example, naval warships can navigate other states' territorial waters[34] under the innocent passage[35] condition, navigate international straits under the transit passage[36] condition, and navigate Exclusive Economic Zones (EEZs)[37] freely. In other words, basically, naval power is given almost unlimited access to all maritime areas to influence other states.[38]

Related to the freedom of navigation, when compared to other types of military services, naval warships have a high level of persistence without interfering over other states' sovereignty. In other words, deploying naval warships does not necessarily require occupying or crossing other states' territories to operate at sea, thus naval power can remain at sea for a long period of time without basing options.[39] When compared to deploying ground forces or air forces to other states, which entails a variety of burdens ranging from overseas basing options to logistics issues, liberty and persistence of naval warships enable coastal states to deploy or withdraw naval warships with low costs, less risks, and rapid/flexible pace in tandem with their foreign policy objectives.[40] For example, during the Cod Wars, the United Kingdom withdrew its naval warships momentarily from the contested area for the purpose of promoting negotiations with Iceland. When the negotiations failed, they deployed naval warships into the contested maritime area again.[41] Therefore, with the combination of maneuverability guaranteed by the international maritime law and the enduring presence without the encroachment of other states' sovereignty at sea, naval warships can flexibly operate and adopt their missions in accordance with foreign policy objectives over maritime claims.

Lastly, as Oxman mentions, "warship is a sovereign instrumentality of the flag state."[42] Given that maritime claims occur due to sovereignty or sovereign rights, showing sovereignty over disputed maritime areas with means that symbolizes sovereignty can be an explicit way to represent states' resolve over contested maritime areas. Based on the symbolic meaning of naval warships, UNCLOS also agrees to the immunity of naval warships from other states' jurisdiction. Within other states' territorial waters, UNCLOS Article 32 defines that "with such exceptions…. nothing in this Convention affects the immunities of warships…." Within the high seas, Article 95 defines that "warships on the high seas have complete immunity from the jurisdiction of any state other than the flag state." As these two Articles show, naval warships cannot be constrained by other states' jurisdiction at sea due to the symbolic meaning of sovereignty. Therefore, deploying warships that symbolize sovereignty to deal with issues over maritime claims is particularly suitable to represent states' intentions or commitments. For example, during the Cod Wars, the United Kingdom dispatched the

Royal Navy into the contested maritime area because they were afraid of sending the wrong signal of giving Iceland *de facto* recognition over the disputed area unless they deployed naval warships due to its symbolic meaning of sovereignty.[43]

Due to these inherent advantages, naval power has been commonly used as a main tool of foreign policy over maritime claims, especially in the Asian waters recently. The naval modernization of China since the 1980s has allowed it to pursue more assertive maritime claims and to conduct operations in more distant waters, including the South China Sea and the Western Pacific Ocean.[44] To respond to the excessive Chinese claims, the United States has conducted the Freedom of Navigation Operations in the South China Sea[45] for the purpose of ensuring the freedom of navigation and rights at sea recognized by the international maritime law.[46] To accomplish these purposes, the United States has deployed force, especially naval platforms, over the South China Sea.[47] To be specific, according to O'Hara, between two types of the FONOPs[48] to protest other states' excessive maritime claims, the number of operational assertions (535) by the U.S. Navy was approximately three times larger than the number of diplomatic protests[49] (197) from 1979 to 2013.[50] When considering that deploying naval warships on average is more costly and riskier than diplomatic talks to protest against other states' unlawful assertions at sea, the frequent usage of naval warships to deal with maritime claims clearly shows the value of naval warships to persuade or to coerce other states at sea.

Not only for aggressive foreign policies over maritime claims, but naval power has been used to ease tensions among disputants over maritime claims. When compared to the army and air force, navies have more opportunities to work with other navies through bilateral as well as multilateral exercises at sea. These exercises can enhance understanding and strengthen the level of cooperation, and then soften tensions among participants. For example, China and Southeast Asian countries conducted naval exercises, including maritime safety and medical evacuation, in 2018. At that time Singapore Defense Minister said the naval exercise with China enabled participants to build trust, confidence, and interoperability to mitigate the disputes over sovereignty and sovereign rights in the South China Sea.[51] In addition, an exchange of port visits by naval warships which symbolize sovereignty of a state is also conducive in easing tensions between rivalries over maritime claims.

Taken together, this part shows that when considering the inherent advantages of naval power to project power at sea, foreign policy behaviors over maritime claims should be understood based on naval power. The next part investigates whether or not naval power is empirically different from national power based on the CINC score.

Empirically, Is Naval Power Different from National Power (the CINC Score)?

There is little doubt that when states decide on a specific foreign policy, including engaging in wars or negotiations, they have no choice but to consider other states' national powers. Naturally, tremendous quantitative studies (more than 1,000 studies) in international politics use national power based on the CINC score to investigate states' foreign policy leverage on opponents.[52] Similarly, most quantitative literature about maritime claims has used national power measured by the CINC score, to capture disputants' foreign policy over maritime claims. For example, Hensel et al., Lektzian, Prins, and Souva, Nemeth et al., Nyman, Ásgeirsdóttir and Steinwand, and Owsiak and Mitchell include national power measured by the CINC score to explain the onset of maritime claims as well as the management of maritime claims, ranging from pacificatory options (bilateral negotiations, third party interventions, etc.) to militarized disputes over maritime claims.[53] The basic assumption in using national power based on the CINC score is that wealthier, more developed, more populous countries can transfer abundant resources into military potential, which enables them to have stronger foreign policy leverage over maritime claims. This part investigates this assumption. In other words, is naval power empirically similar to national power measured by the CINC score?

Table 1 compares the elements of sea power based on Mahan's writing[54] and the elements of the CINC score. It shows that only the population size is commonly included in the two. However, the population size in the elements of sea power only considers the population working in maritime areas, not the total population. For other elements of sea power, such as geography, physical conformation, and characteristics of population/government, it is difficult to argue that they share common characteristics with the elements of the CINC score. Relatedly, Modelski and Thompson mention that conventional capability attributes, such as military expenditures and military personnel, have inherent limitations in measuring naval power. For example, there is a lack of exact data regarding military expenditures due to different criteria in ascertaining actual expenditures among countries. In terms of personnel, since a main means of naval warfare is not personnel but warships, the number of personnel is less meaningful.[55] Similarly, Crisher and Souva argue that plentiful resources can be a necessary condition for the acquisition of strong naval power, while abundant resources cannot be a sufficient condition for the development of naval power.[56]

Table 1. Comparison between the Elements of Sea Power and Elements of CINC Score

	The elements of sea power	The elements of CINC score
Similar	Population (working in maritime areas)	Total population Urban population
Dissimilar	Geography (lack of threat from land, access to sea routes)	
	Physical conformation (contour of the coast, number of harbors)	Iron/Steel production
	Extent of territory (length of coastline)	Military expenditure Military personnel
	Characteristic of the people (tendency to trade and commerce)	Energy consumption
	Characteristic of government (character of rulers toward the development of sea)	

In addition, I calculate each country's correlation between naval power and the CINC score. Based on the conceptualization of naval power as discussed earlier, I measure naval power (the total tonnage of major warships) by using Crisher and Souva's naval data. Based on a review of naval histories, technological developments, types of naval warships, and warfighting skills, the authors categorize four different periods of naval history, and create the naval data that contains the total number and total tonnage of warships, including aircraft carriers, battleships, submarines in 73 countries from 1865 to 2011. In addition, in order to exclude states that do not have projectable naval power, Crisher and Souva adopt minimal criteria: (1) at least one frigate class warship of 1,000 tons or (2) submarines. Therefore, states that do not have at least one naval surface warship of 1,000 tons or submarines are excluded from this data. Figure 1 shows correlations between naval power and the CINC score. The lowest value of correlation is -0.65 (Canada), the highest value of correlation is 0.94 (India), and the average is 0.23, which are not as high as we might expect. Several major powers' correlations are lower than 0.5: the United States (0.48), Russia (0.41), France (0.22), the United Kingdom (0.01), China (0.35) and Japan (0.40). In addition, as Figure 1 shows, surprisingly, 19 countries (30 percent) show negative correlations between naval power and the CINC score. To put it differently, in some countries an increase in the CINC score leads to a decrease in naval power, and vice versa.

Figure 2 shows the CINC score and naval power from 1950 to 2011[57] for two states at both extremes in Figure 1, Canada and South Korea. For South Korea, which has the second highest positive correlation (0.92), the trend between the CINC score and naval power over the time period looks very similar. For Canada which has the lowest value of correlation (-0.65), however, the trend shows an explicit desynchronization between the CINC score and naval power.

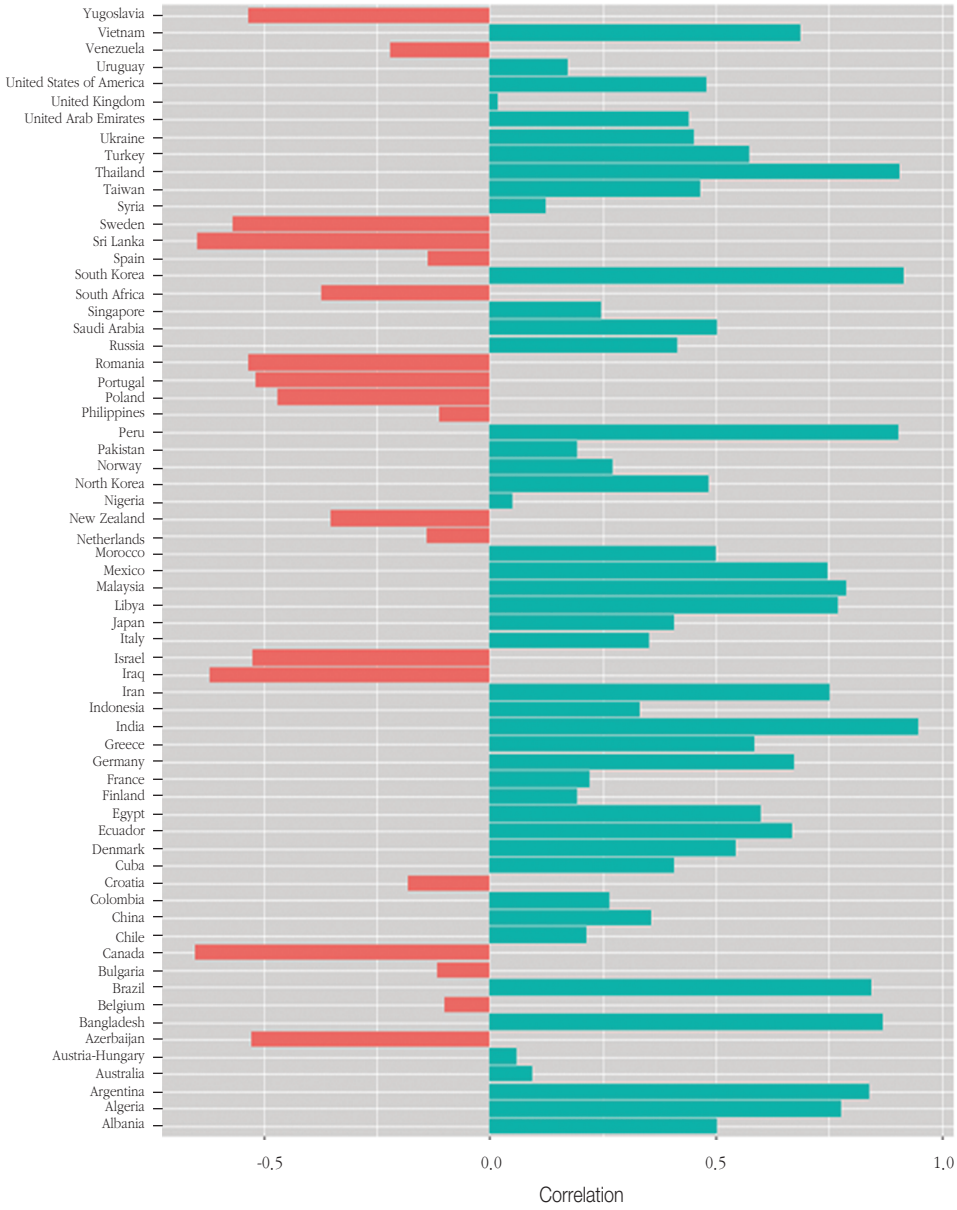
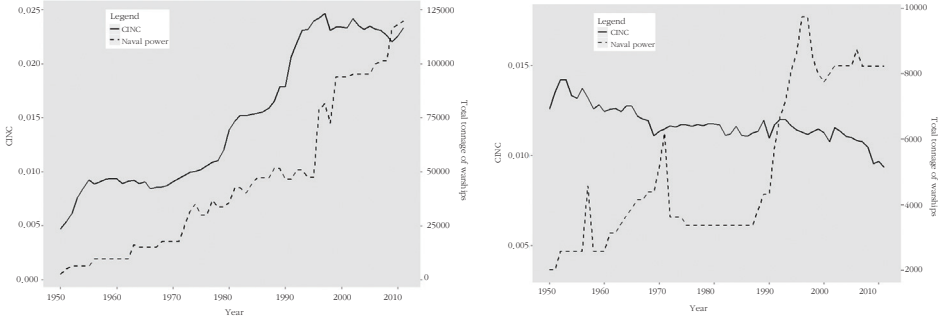


Figure 1. Correlations between Naval Power and CINC Score from 1865 to 2011

There are several reasons to explain the rise of Canadian naval power regardless of the decline of national power (the CINC score). For example, according to Mahan in Table 1, among several factors that can influence the development of naval power, Canada has the longest coastline in the world; approximately 202,080 kilometers, which is four times longer than the second-longest coastline (Norway, 58,133 kilometers).[58] In

addition, Canada has not been challenged by threats from land, which enables them to focus on the development of naval power rather than diverting their effort and resources. Furthermore, as one of the top five fishing exporters by value in the world,[59] fishing is one of the key industries in Canada. Therefore, regardless of the CINC score, Canada has an intense aspiration to develop and modernize its naval power.



South Korea (Correlation: 0.92) Canada (Correlation: -0.65)

Figure 2. The CINC Score and Naval Power from 1950 to 2011 of South Korea and Canada

These results demonstrate that desynchronization between the CINC score (national power) and naval power has been common. For example, the Soviet Union during the Cold War and Germany after World War II did not have projectable and mighty naval power that corresponded with their national power. Thus, I argue that the basic assumption of using national power in explaining foreign policy behaviors over maritime claims, as many quantitative studies have, need to be reconsidered because naval power is empirically different from national power. Therefore, if states decide to threaten or coerce other states over maritime areas, this decision should be a function of naval power rather than abundant resources or military potential. The next part examines how the usage of naval power enhances understanding about real issues over maritime claims, especially the occurrence of militarized disputes over maritime claims.

Case Study: Several Militarized Disputes over the Northern Limited Line (NLL)

As explained before, if there are theoretical reasons to explain why naval power is a better indicator to explain foreign policy behaviors regarding maritime claims and if naval power is empirically different from national power, the next question would be whether or not the usage of naval power to analyze foreign policy behaviors regarding maritime claims enhance our understanding about real world examples. Several militarized disputes near the Northern Limited Line (NLL) between South Korea and

North Korea can tell why naval power is better than national power in explaining issues regarding maritime claims. For this purpose, this research focuses on why North Korea has started to object to the NLL since the 1970s and why frequent sea battles near the NLL occurred since the end of the 1990s.

Figure 3 shows the NLL. After the Korean War, in May 1953, the United Nations Command (UNC), China, and North Korea signed the Korean Armistice Agreement and established the Military Demarcation Line (MDL) with a four km-wide buffer zone, the Demilitarized Zone (DMZ), on land. However, they could not establish maritime boundaries, thus UNC Commander, Mark Clark, drew the current NLL to prevent unintended sea battles between the two rivals in April 1953.[60] Since then, the NLL has been a *de facto* maritime border between two Koreas because North Korea did not challenge the NLL until 1973 and implicitly agreed to the NLL several times as a *de facto* maritime boundary.[61]

Figure 3. The NLL in the Yellow Sea
Source: Terence Roehrig, "The Korean Dispute over the Northern Limit Line: Economics, International Law, and Security," https://www.belfercenter.org (accessed August 26, 2017).

In this case, why did North Korea not make an issue of the NLL until the 1970s? Among several reasons, I argue that North Korea did not have a means (naval power) to manage maritime areas near the NLL because North Korean naval power was almost destroyed after the Korean War. However, with the support from the Soviet Union and China, North Korea built up and restored its naval power. As Figure 4 shows, according to Crisher and Souva's naval data, North Korea has had projectable naval power since 1973. In other words, North Korea has possessed naval warships of over 1,000 tons since 1973, which made North Korean navy operate offshore. In 1973, North Korea started to object to the NLL. It is not a coincidence that North Korea started to challenge to the presence of the NLL when North Korea had the means

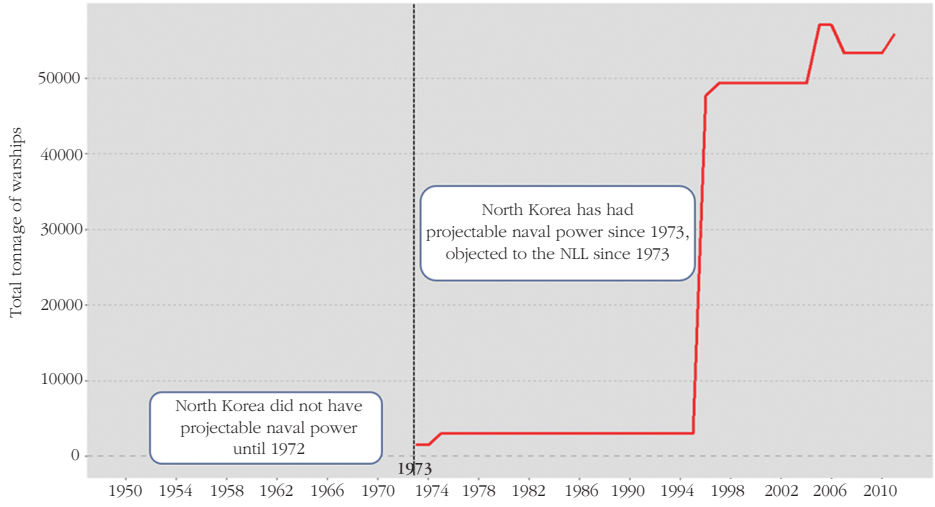


Figure 4. North Korean Naval Power from 1950 to 2011

(projectable naval power) near the NLL.

Indeed, North Korea's aggressive actions towards South Korea, particularly near the NLL, dramatically increased since the 1970s. To be specific, while there was a lack of sea provocations before the 1970s, North Korean naval ships crossed the NLL to the south 43 times from October to December 1973.[62] The U.S. Congressional Research Service report, *North Korean Provocative Actions, 1950–2007*, also shows that North Korean provocations over the sea started in the beginning of the 1970s.[63] Therefore, it is expected that possessing a means (naval power) since the 1970s encouraged North Korea to pursue aggressive actions over the NLL. In other words, naval build-up since the 1970s raised North Korea's voice against the NLL.

In addition, a comparison of naval power with national power based on the CINC score between South Korea and North Korea explains why frequent militarized disputes near the NLL occurred since the 1990s. When states implement conflictual options, they have no choice but to consider relative powers. As Wagner (2007) argues, wars are contests between states with a probability of winning and losing that are determined by those states' relative powers.[64] When two states have a similar level of power, it difficult for them to assess who would be superior in the case of battles, which increases the possibility of miscalculation about the outcome, and in turn, conflicts. In this case, if relative naval power between South Korea and North Korea has a better explanatory power than relative national power measured by the CINC score to explain frequent militarization near the NLL since the 1990s, this would be another reason to support the effectiveness of naval power to unfold foreign policy behaviors over maritime claims.

The quantitative studies about issues over maritime claims include relative national power measured by the CINC score in the way of dividing the stronger state's CINC

score by the sum of the stronger and weaker state's CINC scores. I replace the CINC score with naval power in the same way of measuring relative national power. Relative national power and relative naval power range from 0.5 to 1.0. 0.5 means perfect parity, while 1.0 signifies perfect disparity which means a stronger state overwhelms the other. As many studies that examine the relationship between (dis)parity of power and the onset of militarized conflicts[65] show, it is expected that if the value of relative national power or relative naval power becomes 0.5, meaning both states have similar levels of power, they should have more militarized disputes.

$$\text{Relative National Power} = \frac{\textit{Stronger state's} \text{ CINC score}}{\textit{Stronger state's} \text{ CINC score} + \textit{Weaker state's} \text{ CINC score}}$$

$$\text{Relative Naval Power} = \frac{\textit{Stronger state's naval power}}{\textit{Stronger state's naval power} + \textit{Weaker state's naval power}}$$

Figure 5 shows relative naval power and relative national power between South Korea and North Korea. A comparison of relative naval power and relative national power clearly shows why frequent militarized disputes near the NLL occurred after the 1990s.

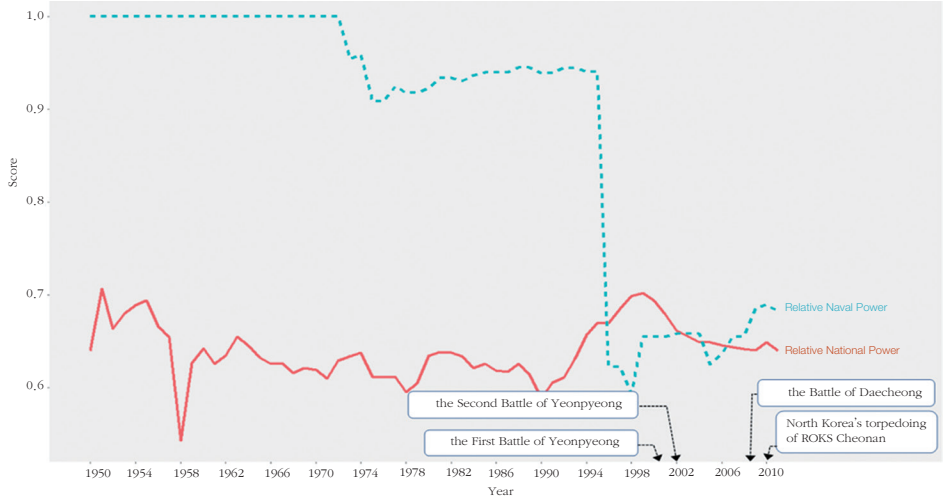


Figure 5. Relative Naval Power and Relative National Power between South Korea and North Korea from 1950 to 2011

First of all, relative national power measured by the CINC score did not show meaningful variations and maintained the value of 0.65 on average from 1950 to 2011. On the contrary, there were huge variations in relative naval power, especially after the 1990s. To be specific, before the 1990s, the value of relative naval power was approximately 0.9, which means South Korea maintained overwhelming naval

power, while since the 1990s the value of relative naval power decreased to 0.6, which means North Korea narrowed its naval power gap with South Korea, and this trend continued to 2011. This situation can explain the frequent occurrence of militarized disputes between South Korea and North Korea over the NLL, such as the First Battle of Yeonpyeong in 1999, the Second Battle of Yeonpyeong in 2002, the Battle of Daecheong in 2009, and North Korea's torpedoing of ROKS *Cheonan* in 2010, concentrated since the 1990s. In other words, Figure 5 shows that not the parity of relative national power, but the parity of relative naval power increases the possibility of miscalculations, and has increased the occurrence of militarized disputes near the NLL since the 1990s. This reveals that rather than national power, naval power has a bigger explanatory power and enhances understanding about foreign policy behaviors (militarized disputes) regarding maritime claims.

Conclusion

This research does not oppose the usage of national power measured by the CINC score to reflect states' capacities in explaining foreign policy behaviors. I argue that (1) if naval power is theoretically better in explaining foreign policy behaviors regarding maritime claims, (2) if naval power and national power are empirically different, and (3) if naval power substantively enhances our understanding of real world issues regarding maritime claims, we need to use naval power to explain such issues. Therefore, when maritime claims, such as the Dokdo dispute between South Korea and Japan or the South China Sea disputes, occur, policy makers should consider how to use its naval power to deal with the maritime claims. This could be another reason why we need a certain level of naval power to coerce or negotiate with others over maritime claims to maximize national interest.

Even though this study only focuses on issues regarding maritime claims to explain the usage of naval power, there are a variety of issues at sea other than maritime claims. Maritime piracy is one of them. As maritime piracy has skyrocketed at sea near Africa and in the Indian Ocean,[66] many countries have dispatched naval warships to prevent the occurrence of piracy in those maritime areas. For example, as part of multilateral efforts, such as Operation Atlanta conducted by the Europe Union, Operation Ocean Shield led by the North Atlantic Treaty Organization, and Combined Task Force 151 led by the United States, western countries have deployed their modernized naval warships in the Gulf of Aden. Along with these efforts, other countries, such as South Korea, China, Japan, and India also have dispatched naval combatant ships independently to prevent the occurrence of maritime piracy near the sea in Somalia. As a result, since 2008, on average, approximately 20–30 naval warships have been operating along the coast of Africa.[67] However, similar to the quantitative research about maritime claims, many studies about maritime piracy[68] use gross indicators,

such as the CINC score and GDP per capita, to capture states' capacities in dealing with maritime piracy. In this case, like maritime claims, when considering what naval warships have done near the coast of Africa, the usage of naval power rather than national power can provide a better understanding about maritime piracy.

Taken together, we need to break from the inertia that uses national power to explain foreign policy behaviors on a specific issue. When former president Bill Clinton visited the *USS Theodore Roosevelt* in 1993, he mentioned that,

> *"When word of crisis breaks out in Washington, it's no accident the first question that comes to everyone's lips is: where is the nearest carrier?"*

This simple sentence implies a lot about the role of naval power as a vanguard of diplomacy at sea, implies why we need to consider naval power more seriously to explain foreign policy behaviors at sea.

Notes

1. Ian Storey and You Ji, "China's Aircraft Carrier Ambitions: Seeking the Truth from the Rumors," *Naval War College Review* 57, no. 1 (2004): 87.
2. Brad Lendon, "Photos Show How Close Chinese Warship Came to Colliding with US Destroyer," *CNN Politics*, October 4, 2019, https://www.cnn.com/2018/10/02/politics/us-china-destroyers-confrontation-south-china-sea-intl/index.html (accessed January 3, 2019).
3. Maritime claims can be defined as an explicit contention between two or more states over the access to or usage of maritime areas. More details will be discussed later.
4. The Composite Index of National Capability (CINC) score is a common indicator to measure national power. It averages six indicators: military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population. See Daniel Jones, Stuart Bremer, and David Singer, "Militarized Interstate Disputes, 1816–1992: Rationale, Coding Rules, and Empirical Patterns," *Conflict Management and Peace Science* 15, no. 2 (1996): 163–213.
5. Cullen Hendrix, "Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict," *Journal Peace Research* 47, no. 3 (2010): 273–85.
6. Douglas Gibler, "State Development, Parity, and International Conflict," *American Political Science Review* 111, no. 1 (2017): 21–38.
7. Michael Beckley, "The Power of Nations: Measuring What Matters," *International Security* 43, no. 2 (2018): 7–44.
8. The Issue Correlates of War (ICOW) is a research project that collects systematic data on contentious issues over land, rivers, and maritime areas. See Paul Hensel, Sara Mitchell, Thomas Sowers, and Clayton Thyne, "Bones of Contention: Comparing Territorial, Maritime, and River Issues," *The Journal of Conflict Resolution* 52, no. 1 (2008): 117–43. Data is available on the ICOW Web site at http://data.icow.org.
9. The official representatives include a variety of entities, such as foreign minister, representative individuals of countries, and other legitimate political or military officials, on behalf of governments.
10. Militarized Interstate Disputes (MIDs) are defined as "historical cases of conflict in which the threat, display or use of military force short of war by a member state is explicitly directed towards the government, official representatives, official forces, property, or territory of another

state. Disputes are composed of incidents that range in intensity from threats to use force to actual combat short of war." See Jones, Bremer, and Singer, "Militarized Interstate Disputes, 1816–1992," 163–213.

11. Hensel, Mitchell, Sowers, and Thyne, "Bones of Contention: Comparing Territorial, Maritime, and River Issues," 117–43; and Sara Mitchell, "Codebook for Maritime Claims Data, Issue Correlates of War (ICOW) Project," http://www.paulhensel.org/Data/marcode.pdf (accessed February 7, 2016).
12. For more details about the definition, onset, management of maritime claims, see Stephen Nemeth, Sara Mitchell, Elizabeth Nyman, and Paul Hensel, "Ruling the Sea: Managing Maritime Conflicts through UNCLOS and Exclusive Economic Zones," *International Interactions* 40, no. 5 (2014): 711–36.
13. Natalie Klein, *Maritime Security and the Law of the Sea* (Oxford: Oxford University Press, 2011), 13.
14. Basil Germond, *The Maritime Dimension of European Security Seapower and the European Union* (New York, NY: Palgrave Macmillan, 2015), 14.
15. John Mearsheimer, *The Tragedy of Great Power Politics* (New York, NY: W.W. Norton, 2014), 114.
16. George Modelski and William Thompson, *Seapower in Global Politics, 1494–1993* (Seattle, WA: University of Washington Press, 1988), 3–11.
17. Germond, *The Maritime Dimension of European Security Seapower and the European Union*, 14.
18. Geoffrey Till, Seapower: *A Guide for the Twenty–First Century*, 2nd ed. (New York, NY: Routledge, 2009), 20–23.
19. Ken Booth, *Navies and Foreign Policy* (New York, NY: Holmes & Meier Publishers, 1979), 251.
20. Jonathan Markowitz and Christopher Fariss, "Going the Distance: The Price of Projecting Power," *International Interactions* 39, no. 2 (2013): 123.
21. Eric Grove, *The Future of Sea Power* (Annapolis, MD: Naval Institute Press, 1990).
22. Douglas Lemke, *Regions of War and Peace* (New York, NY: Cambridge University Press, 2002), 85.
23. Alfred Mahan, *The Influence of Sea Power upon History*, *1660–1783* (New York, NY: Dover Publications, 1890), 91.
24. Sean Bolks and Richard Stoll, "The Arms Acquisition Process: The Effect of Internal and External Constraints on Arms Race Dynamics," *Journal of Conflict Resolution* 44, no. 5 (2000): 583.
25. The consequences of diplomacy at sea are not merely dependent on the number or tonnage of naval warships. As Till (2009) mentions, in addition to the quantity and quality of naval warships, numerous factors, such as the effectiveness of command and control, training, morale, and geography are also important in determining the outcomes of battle at sea. Therefore, I do not deny that naval warships are not the only way to measure naval power. However, when considering data constraints and the importance of naval warships to explain issues at sea, the total tonnage or number of warships would be the best realistic indicator to capture naval power.
26. Sverrir Steinsson, "Neoclassical Realism in the North Atlantic: Explaining Behaviors and Outcomes in the Cod Wars," *Foreign Policy Analysis* 13, no. 3 (2017): 614.
27. Donald Barry, "The Canada–European Union Turbot War Internal Politics and Transatlantic Bargaining," *International Journal* 53, no. 2 (1998): 264–66.
28. Elizabeth Nyman, "Oceans of Conflict: Determining Potential Areas of Maritime Disputes," *SAIS Review of International Affairs* 33, no. 3 (2013): 6.
29. Mearsheimer, *The Tragedy of Great Power Politics*, 114.
30. Colin S. Gray, *The Navy in the Post–Cold War World: The Use and Value of Strategic Sea Power* (University Park, PA: The Pennsylvania State University Press, 1994), 18.
31. Jack Levy and William Thompson, "Balancing on Land and at Sea: Do States Ally against the Leading Global Power?," *International Security* 35, no. 1 (2010): 38.

32. George Boyce, *The Falklands War* (New York, NY: Palgrave Macmillan, 2005), 39.
33. UNCLOS is an international agreement which was signed in 1982 to establish coastal states' rights and responsibilities to access and use the sea.
34. Territorial waters are maritime areas that stretch from the baseline (usually the mean low-water mark) out to 12 nm. Within territorial waters, coastal states can exercise sovereignty.
35. UNCLOS defines that "passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal state." For more details about innocent passage, refer to http://www.un.org/depts/los/convention_agreements/texts/unclos/part2.htm.
36. UNCLOS defines transit passage as "navigation for the purpose of continuous and expeditious transit of the strait." For more details about transit passage, refer to http://www.un.org/Depts/los/convention_agreements/texts/unclos/part3.htm.
37. "Exclusive Economic Zones (EEZs)" are maritime areas that stretch from the baseline out to 200 nm. Within EEZs, states have exclusive rights regarding the exploration and use of living and non-living resources.
38. Germond, *The Maritime Dimension of European Security Seapower and the European Union*, 29.
39. Thomas Mahnken, "Navies and the Flexible Application of Power," in *Naval Diplomacy and Maritime Power Projection*, ed. Andrew Forbes, http://www.navy.gov.au/sites/default/files/documents/SP13.pdf (accessed June 21, 2019).
40. Booth, *Navies and Foreign Policy*, 33.
41. Steinsson, "Neoclassical Realism in the North Atlantic," 614.
42. Bernard Oxman, "The Regime of Warships under the United Nations Convention on the Law of the Sea," *Virginia Journal of International Law* 24, no. 4 (1984): 819.
43. Steinsson, "Neoclassical Realism in the North Atlantic," 614.
44. U.S. Congressional Research Service, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*. See https://fas.org/sgp/crs/row/RL33153.pdf (accessed September 30, 2018).
45. Freedom of Navigation Operations have been conducted at the global level. However, when considering the frequent maritime claims in the South China Sea, recent Freedom of Navigation Operations have been concentrated in the South China Sea.
46. Ashley Roach and Robert Smith, *Excessive Maritime Claims*, 3rd ed. (Leiden: Martinus Nijhoff Publishers, 2012), 6–9.
47. Peter Dutton, "China's Maritime Disputes in the East and South China Seas," *Naval War College Review* 67, no. 3 (2014): 16.
48. Freedom of Navigation Operations consist of (1) consultations and representations by U.S. diplomats, and (2) operational assertions by the U.S. military force.
49. Diplomatic protests as a part of Freedom of Navigation Operations are usually conducted through consultations and representations by U.S. diplomats.
50. Patrick O'Hara, "The Navy as a Political Instrument: Freedom of Navigation Operations 1958–2013" (PhD diss., Columbia University, 2016), 111–15.
51. Jake Watts, "With Naval Exercises, China Cozies Up to U.S. Friends in Southeast Asia," *The Wall Street Journal*, October 19, 2018, https://www.wsj.com/articles/with-naval-exercises-china-cozies-up-to-u-s-friends-in-southeast-asia-1539943659 (accessed November 20, 2019).
52. Beckley, "The Power of Nations: Measuring What Matters," 10.
53. Andrew Owsiak and Sara Mitchell, "Conflict Management in Land, River, and Maritime Claims," *Political Science Research and Methods* 7, no. 1 (2019): 43–61; Áslaug Ásgeirsdóttir and Martin Steinwand, "Distributive Outcomes in Contested Maritime Areas: The Role of Inside Options in Settling Competing Claims," *Journal of Conflict Resolution* (November 2016): 1284–313; David Lektzian, Brandon Prins, and Mark Souva, "Territory, River, and Maritime Claims in the Western Hemisphere: Regime Type, Rivalry, and MIDs, 1901 to 2000," *International Studies Quarterly* 54, no. 4 (2010): 1073–98; Elizabeth Nyman, "Offshore Oil Development and Maritime Conflict in the 20th Century: A Statistical Analysis of International Trends," *Energy Research & Social Science* 6 (2015): 1–7; Hensel, Mitchell, Sowers, and Thyne, "Bones of Contention: Comparing Territorial, Maritime, and River Issues," 117–43; and

Nemeth, Mitchell, Nyman, and Hensel, "Ruling the Sea," 711–36.

54. As Mahan mentioned in his book, *The Influence of Sea Power upon History, 1660–1783*, the core element of sea power is naval power. In addition, when he wrote the book in the 1890s, sea power usually meant naval power. Thus, the elements of sea power are very similar to the elements of naval power.
55. Modelski and Thompson, *Seapower in Global Politics, 1494–1993*, 28–33.
56. Brian Crisher and Mark Souva, "Power at Sea: A Naval Power Dataset, 1865–2011," *International Interactions* 40 (2014): 602–29.
57. Crisher and Souva (2014)'s naval data includes South Korean naval power since 1950 and Canadian naval power since 1948. To compare the two states' naval powers, Figure 2 plots graphs with the common time period from 1950 to 2011.
58. For more information, refer to CIA World Fact Book available at https://www.cia.gov/library/publications/the-world-factbook/geos/print_ca.html (accessed December 21, 2019); and https://www.cia.gov/library/publications/the-world-factbook/geos/no.html (accessed December 21, 2019).
59. http://www.fishharvesterspecheurs.ca/fishing-industry/economics (accessed December 11, 2019).
60. Darcie Draudt and John Warden, "The Strategic Rationale for Maritime Tension Reduction in the Yellow Sea," *The Washington Quarterly* 40, no. 4 (2017): 186.
61. Jon Van Dyke, Mark Valencia, and Jenny Miller Garmendia, "The North/South Boundary Dispute in the Yellow (West) Sea," *Marine Policy* 27, no. 2 (2003): 143–46.
62. Narushige Michishita, *North Korea's Military–Diplomatic Campaigns*, 1966–2008 (New York, NY: Routledge, 2010), 52.
63. U.S. Congressional Research Service, "North Korean Provocative Actions, 1950–2007," April 2, 2007, https://fas.org/sgp/crs/row/RL30004.pdf (accessed July 10, 2017).
64. Harrison Wagner, *War and the State: The Theory of International Politics* (Ann Arbor, MI: University of Michigan Press, 2007).
65. Lemke, Regions of War and Peace; and Douglas Lemke and Suzanne Werner, "Power Parity, Commitment to Change, and War," *International Studies Quarterly* 40, no. 2 (1996): 235–60.
66. Bridget Coggins, "Global Patterns of Maritime Piracy, 2000–09: Introducing a New Dataset," *Journal of Peace Research* 49, no. 4 (2012): 608.
67. United Nations Institute for Training and Research, "On Maritime Piracy: A Geospatial Analysis 1995–2013," https://unosat.web.cern.ch/unosat/unitar/publications/UNITAR_UNOSAT_Piracy_1995-2013.pdf (accessed July 26, 2017).
68. Ursula Daxecker and Brandon Prins, "Insurgents of the Sea: Institutional and Economic Opportunities for Maritime Piracy," *Journal of Conflict Resolution* 57, no. 6 (2012): 940–65; Ursula Daxecker and Brandon Prins, "The New Barbary Wars: Forecasting Maritime Piracy," *Foreign Policy Analysis* 11 (2015): 23–44; and Ryan Jablonski and Steven Oliver, "The Political Economy of Plunder: Economic Opportunity and Modern Piracy," *Journal of Conflict Resolution* 57, no. 4 (2013): 682–708.

Notes on Contributor

Jonghwan Han is a lieutenant commander of the Republic of Korea Navy and received a Ph.D. in Political Science at the University of Iowa in 2019. He earned two master's degrees at Korea National Defense University in 2010 (Military Strategy) and at the University of Iowa in 2016 (Political Science). His research focuses on naval power, maritime claims, and U.S. foreign policy.