Revisiting Neoclassical Realism in Understanding Variations in States’ Armaments: A Case of South Korea and Taiwan's Ballistic Missile Defense

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Abstract Debating on Jeffrey W. Legro and Andrew Moravcsik’s critique on neoclassical realism, this article seeks to argue that the theory retains its own merits in understanding state behaviors in the international system. Paying particular attention to neoclassical realist literatures - including Randall L. Schweller’s elite cohesion/fragmentation, Jeffrey W. Taliaferro’s resource extractive state, and Steven E. Lobell’s discussions on foreign policy executives and societal elites - the article seeks to illustrate how the theory accounts for variations in states’ response to external security imperatives. Drawing parallels between neoclassical realism and literatures on preference formation and rationality in social science, this study argues that the foundational merit of neoclassical realism lies in advancing the realist paradigm towards what this study calls a model of “situated rationality” for capability aggregation. For empirical clarification, the last section of the article shows how the neoclassical realist framework can account for variations in South Korea and Taiwan’s armaments in the ballistic missile defense (BMD), despite similar security imperatives.

Keywords Neoclassical realism · capability aggregation · structural realism · situated rationality · ballistic missile defense (BMD)
**Introduction**

Neoclassical realism has been an “outgrowth” of structural realism that has long dominated the theoretical debates in international studies (Rathbun, 2008, 296). However, the theory has invited diverse challenges from within and without the realist paradigm, especially for becoming indistinguishable, outdated, or ambiguous from other international relations theories. Despite the criticisms, however, this study finds that a critical review and return to the essence of the theory make it still sound ground in understanding why states vary in their choices between alliance and armament in response to external security imperatives.

In this backdrop, this study begins by debating on Jeffrey W. Legro and Andrew Moravcsik’s monumental critique on neoclassical realism and how later neoclassical realist publications have strived to overcome the drawbacks pointed out by Legro and Moravcsik. The reviewed literatures include Randall L. Schweller’s elite cohesion/fragmentation, Jeffrey W. Taliaferro’s resource-extractive state, and Steven E. Lobell’s foreign policy executives and societal elites. The second section of the article incorporates here the notion of “situated rationality.” Although the concept emerged from the debate between rational-choice and historical institutionalism theorists on preference formation in political science, the discussions are useful in highlighting the essence of neoclassical realism. Drawing parallels between neoclassical realism and “situated rationality,” this study argues that the merit of neoclassical realism lies in advancing the realist paradigm towards what this study calls a model of “situated rationality” for capability aggregation. While structural variables remain primary push to states’ behaviors (independent variables), observations into the domestic process and agents (intervening variables) are critical in understanding and accounting for variations (dependent variable).

As empirical clarification, the last section of the study applies a neoclassical realist framework to explain how South Korea (Republic of Korea, ROK) and Taiwan (Republic of China, ROC)’s armaments in the ballistic missile defense (BMD) system vary. These two cases are selected on the grounds that the leaders’ perception and domestic contexts have differently skewed their armaments in response to increasing asymmetric nuclear and ballistic missile threats in the region. While there are ample number of previous studies dealing with empirical analysis on South Korea and Taiwan’s BMD armaments, this study finds comparative juxtaposition of the two cases invaluable as both theoretical and empirical testbed in highlighting neoclassical realists’ explanation of variations in state behaviors - wherein armament priorities vary despite similar security imperatives.

As a brief preview of the comparison, this study illustrates how increasing existential threats from China (external as primary variable) have pushed for convergence in Taiwanese policy leaders’ perception on China and pursuit for BMD armaments. Unlike Taiwan’s so-called ‘external-to-domestic push’ for BMD, South Korea appears to be a case of ‘domestic skewing.’ Despite increasing external push from North Korea’s emergence as de facto nuclear power, policy leaders have capped the BMD armaments to lower-tier, low-end assets as interim choices, while insisting on building independent KAMD. Such domestic inclination worked as ‘domestic skewing’ towards restraint in BMD armaments.
Neoclassical Realism, its Challenges and Merits

Although the realist paradigm went through series of refinements from Hans Morgenthau (1966)’s theory on human nature (classical realism) to Kenneth N. Waltz(2010)’s balance of power theory, states’ behaviors in the international system have become increasingly challenged to be simplified to their rational disposition for power. As Barry Buzan (1996, 59) stated, the “anarchic structure” of international system assumed to be primary in pushing states to vie for power and survival - the main tenets of Waltzian realism - has appeared less prevailing “For most of history” (Keohane, 1984; Axelrod, 1984), and balance of power (external and internal balancing - a.k.a. alliance and armaments) has been rarely the dominant behavior of states in the international system (Lebow, 1994; Schroeder, 1994). Disproving Waltz’s proposition that “Only if survival is assured can states seek other goals as tranquility, profit, and power,” states - despite anarchy - did not necessarily seek security by allying (external balancing) and/or arming (internal balancing) as the “highest end” (Waltz, 1979).

In efforts to refine and explain why states would “underbalance” (Schweller, 2004; Taliaferro, 2006; Lobell et al., 2009), neoclassical realism sought to reincorporate classical realists’ observations on the domestic unit-level variables. While retaining structural realists’ core assumption that systemic forces are the underlying drivers of state behaviors in the international system, neoclassical realists aimed to explore how systemic effects from anarchy (exogenous constraints) become filtered through state structure and perception of ‘conflict groups’ (leadership, elites, and other decision-makers). As Jennifer Sterling-Folker (1997, 7) noted, neoclassical realism incorporated the domestic factors as the intervening variables in order to elucidate how “domestic processes act as the final arbiter for state survival within the anarchic environment[emphasis added]” without having to muddle through other theoretical paradigms. Gideon Rose (1998, 146), who first gave its appellation, described neoclassical realism as the following:

“…adherents [of neoclassical realism] argue that the scope and ambition of a country’s foreign policy is driven first and foremost by its place in the international system and specifically by its relative material power capabilities. This is why they are realist. They argue further, however, that the impact of such power capabilities on foreign policy is indirect and complex, because systemic pressures must be translated through intervening variables at the unit level. This is why they are neoclassical.”

While such modifications may now enable the realist paradigm to ‘unblackbox’ the state and show how domestic and epistemic variables are not only reserved for liberalism and constructivism, neoclassical realists’ refinement of the theory also invited diverse criticisms. As Legro and Moravcsik have famously posed “Is Anybody Still a Realist?” they found that neoclassical realists’ “recast” of realism turned the theory too inclusive of everything else (1999, 6). They argued that neoclassical realism’s incorporation of domestic variables has led to “theoretical indeterminacy,” “a form of realism [that is] indistinguishable from nonrealist theories about domestic institutions, ideas, and interests” (Legro & Moravcsik 1999, 28). Indeed, one of the major theoretical challenges to neoclassical realism has been that bringing in domestic variables often “end [up with not] a novel combination of systemic and domestic...
determinants, but with a restatement of the traditional Innenpolitik case” (Zakaria, 1992, 178). Although Fareed Zakaria (1992, 178) made the comment in his critique on defensive realism for “using domestic politics to do all the work in their theories,” neoclassical realist literatures often fell to discarding or missing out discussions on systemic (exogenous) variables, as pointed out by Legro and Moravcsik (1999, 28). Thus, neoclassical realists would often “reverse[e] the causal arrow of realism,” in their view, by accounting for “how governments adjust their power to their preferences,” “Rather than arguing … that the distribution of power influences state behavior despite varying preferences” (Legro & Moravcsik, 1999, 30). Neoclassical realism has been in this regard a struggle to explain how systemic effects of international system come to be intervened by domestic variables, without becoming the case of Innenpolitik themselves.

Legro and Moravcsik’s ‘fatal blow’ to neoclassical realism also has been that this new strand of realism has been ‘self-negating’ the core assumptions of realism. While the “theoretical core” of realism is founded on the three assumptions that 1) states are rational and unitary actors in anarchy, 2) with “fixed” and “uniform” preferences for power, and that 3) state behaviors are reflective of their material capabilities (Legro & Moravcsik, 1999, 12-18), neoclassical realism has “flatly violate[d]” the latter two premises (Legro & Moravcsik, 1999, 19).

While Legro and Moravcsik’s critique on neoclassical realism has made valid points in alerting how ad-hoc incorporation of domestic variables may induce ambiguous multicausality, “only muddying[ing]” the theoretical boundaries of realism (Legro & Moravcsik, 1999, 50), some major counterarguments can be established here. First, the neoclassical realist literatures that ensued after Legro and Moravcsik’s critique have strived to clarify their theoretical distinctiveness, particularly against the liberalist discourses. As Mark R. Brawley (2017) described, one of the major distinctions neoclassical realists sought to establish has been the direction of causality in linking systemic and domestic/unit-level variables. Unlike liberalists’ bottom-up view of politics, in which they begin from inquiries on “individuals” (Brawley, 2017) and “taking their preferences seriously” (Moravcsik, 1997), latter neoclassical realists build their analytical reasoning from understanding changes in the external environment of states. While liberalists perceive state behaviors as outcome of individuals’ organization into groups (coalitions), vying for control of the state, and how the ruling groups come to dictate state policies, neoclassical realists contend that state behaviors depend on how systemic imperatives are transmitted “down” to the domestic context, especially when it comes to “amass[ing] the resources” at home to respond to the changes in the international environment (Brawley, 2017).

Randall L. Schweller’s elite cohesion/fragmentation model (2004, 171), for instance, looked at elite consensus in explaining why states would “underbalance” despite emergence of aggressor. As the explanation goes, when there is change in relative power, states’ decisions to balance or not to balance against the threats become intervened by the “elite consensus about the nature of the threat.” Then depending on “mobilization hurdles … [that] limit the state’s ability in meeting the threat,” states will opt to maintain or change their policy, i.e. “balancing, bandwagoning, appeasement, half measures” (Schweller, 2004, 169). Despite rise in external threat, underbalancing or states’ limited capability aggregation occurs when social fragmentation and regime vulnerability pervade at home. Also, underbalancing can derive from elites’ disagreement on “how to respond to the threat” or consensus to not balance (Schweller, 2004, 170). In similar vein, Steven E. Lobell also began from how the systemic effects of international system become filtered through the key agents of the state and society. As Lobell (2009, 45)
succinctly put, “the degree of consensus among the FPE [(foreign policy executives)] and key societal supporters about foreign threats will affect the efficiency and appropriateness of counterbalancing behavior.”

Furthermore, more procedural linkage from systemic to domestic variables can be depicted from Jeffrey W. Taliaferro’s resource-extractive state model (2006). As Taliaferro put, the structure of international system “provides incentives for states” to counter external threats. Domestic variables, however, arbitrate “the types of [states’] internal balancing strategies” as they “limit the efficiency with which states can respond to these systemic imperatives.” Neoclassical realism, in other words, retains its own distinctiveness for considering states to be primarily responsive to systemic imperatives, and veers against liberalism’s “bottom-up view of politics in which the demands of individuals and societal groups are treated as analytically prior” (Moravcsik, 1997, 517).

Second, although neoclassical realism may have become ‘less-realist, it is both realist and non-realist paradigms that have influenced and refined each other to better grasp the empirical reality of state behaviors in the international system. In case of neoclassical realism, states’ rationality for capability aggregation has become more conditional by looking into domestic agents, while upholding realist emphasis on anarchy, centrality of states, and primary concerns on security. On the other end, the non-realist paradigms have also increasingly attended for structural constraints on state behaviors. As J. Samuel Barkin’s treatise on “Realist Constructivism” (2003) has found overarching compatibilities between constructivism and realism, realists’ tendency to reduce states to be driven by materialist concerns has permeated in the non-realist traditions, particularly when it comes to discussions on power, security, and topics of armaments (Jo, 2016; Ward, 1984).

Echoing William C. Wohlforth’s rather ‘reserved’ acceptance of realist theories, although realist theories may be “terribly weak” and does “not come close to the ideal of scientific theory,” it is nevertheless evident that other alternatives often “suffer from similar or worse indeterminancy but do not possess comparable explanatory power” (Wohlforth, 1994/95, 93). Our approach to neoclassical realism, thus, should be also this kind of “acceptance[.] conditioned on a determination to improve it, or to dispose it if something better comes along” (Wohlforth, 1994/95, 93).

Towards A Model of Situated Rationality for Capability Aggregation

For further clarification, I find that neoclassical realism has advanced the realist paradigm towards what this study calls a model of “situated rationality” for capability aggregation. Although the Waltzian emphasis on structure makes discussions on “rationality of agents see[m] superfluous” or at best “ambiguous” in structural realism (Kahler, 1998, 925), neoclassical realists’ exploration into states’ key agents and their circumstances now enables to see states’ balancing to be, as how Katznelson and Weingast would describe, more “situationally induced” (Katznelson & Weingast, 2005, 4).

The notion of “situated rationality” comes from the debate on preference formation between rational-choice theorists and historical institutionalism in social science. As neoclassical realism has begun to pay attention to the preferences and perception of key elites and decision-
makers, intriguing parallels can be drawn from the discussions. Briefly put, the rational-choice theorists have argued that actors are driven by preferences that are exogenously given (such as power in traditional realism), while historical institutionalists saw the preferences as of historical and social constructs. However, as Katzenelson and Weingast have found, there emerged a meaningful convergence between the two schools, as the rational-choice theorists have begun to attend for “historical and institutional processes” in understanding actors’ preferences, while historical institutionalists have begun to deliberate on how preferences can be exogenously induced. The rational-choice theorists, in particular, according to Katzenelson and Weingast (2005, 8), have become “far more empirical, conditional, and situational in deploying preferences,” placing them in context of “interaction with other actors.” Such “cross-fertilization” between two schools has emerged as a third approach of what they called “situated rationality.” As Cheol Hee Park (1998, 59) deliberated, situated rationality posits that actors’ rationalities should be “situationally defined.” The actors are not confined to exogenously given (rational-choice) nor endogenously constructed (historical institutionalism) imperatives, but are seen to decide their actions under “perceived realities, available alternatives, mobilizable resources, and embedded relationships” (Park, 1998, 60). Therefore, rationality of actors can no longer be fixated on a single goal, but can form and change - upon what Cheol Hee Park would call “situational variables” in which both “internal and external environments” (Katznelson, 1999) influence their preferences.

As may have been evident above, variations in states’ internal balancing in neoclassical realism become situational to the elites’ perceived external vulnerabilities and considerations for domestic political conditions - how “political elites carefully weigh the likely domestic costs[emphasis added] of balancing behavior against the alternative means available to them[emphasis added]” (Schweller, 2004, 164). Indeed, the essence of Schweller’s model lies in his emphasis on the level of elites’ consensus and internal cohesion in domestic politics - what Schweller calls “mobilization hurdles” or “domestic costs” - in implementing preferred security policies to address the threats. Taliaferro’s resource-extractive state model (2006) also similarly wrote that the “types of internal balancing strategies” are shaped by “the relative ability of the state to extract or mobilize resources” - “the extraction and mobilization capacity” - as well as the sense of “external vulnerability.” Domestic politics particularly emerge as the most profound mobilization hurdles, “Because state survival is rarely at stake while regime stability or survival frequently is” (Barnett & Levy 1991, 373), and leaders may “abandon” their policies if they “face severe domestic opposition” (Morrow, 1993, 216).

Nevertheless, what is still at stake in application of the theory is again clarifying the direction of linkage between systemic and domestic variables. Although Yoo Hyon Joo (2012), for instance, applied the theory and elaborated on the different “domestic hurdles” in explaining why South Korea and Japan despite similar security environment pursue divergent missile defense policies, focusing too much on the internal variables led to omitting prior elaborations on the external determinants. Seemingly repeating what Legro and Moravcsik pointed out earlier, recent literatures including Yoo Hyon Joo have deliberated less on the systemic variables, making the exogenous variables seem unattended for or even constant and non-changing. Internal variables tended to become independent than intervening variables.

In this backdrop, this study proposes following refinements of the theory, as depicted in <Figure 1>. The foundation to why states overbalance/underbalance against threats arises from
how the structural influences from systemic imperatives (independent variable) become reinforced and/or abated by how domestic agents “perceive” their realities and weigh the costs of armaments (Jo, 2020, 56).

**Fig. 1** Refined Neoclassical Realist Framework for States’ Armaments

**Empirical Case: South Korea and Taiwan’s BMD**

As empirical testbed for neoclassical realism, this study brings here a comparative analysis on South Korea and Taiwan’s armaments in the ballistic missile defense (BMD). Although the BMD system has been challenged for high costs and reliability of the weapons system, the ability to detect, track, and hit-to-kill incoming targets has impelled many countries under ballistic missile threats to acquire the BMD as means for deterrence and defense. In this backdrop, South Korea and Taiwan are intriguing cases for comparison as the asymmetric nuclear and ballistic missile threats from North Korea and mainland China have not impelled similar level of BMD acquisitions.

While existing literatures have often placed South Korea in comparative context to other countries’ BMD armaments (Kim, 2018; Park, 2013, 2016, 2018), including the case of Taiwan (Khalilzad et al., 2001; Park, 2011; Mishra, 2016), this study’s diadic comparison of the two countries focuses on clarifying the explanatory power of neoclassical realism. Building upon previous comparative studies on South Korea and Taiwan’s BMD armaments, this study posits that South Korea and Taiwan’s armaments in the BMD can be distinguished along how increasing asymmetric threats and alliance structure with the US - two independent variables - become filtered by two central intervening variables - policy leaders’ threat perception (threat imminence or latency from nuclear and ballistic missile capabilities) and their mobilization capacity for alliance-reliant or autonomous armaments in the BMD, <Figure 2>. While independent structural variables predominate states’ armaments in the BMD, the two states’ domestic contexts skew/reinforce the structural forces in shaping the two states’ BMD acquisitions (Jo, 2020, 57).
Taiwan: Case of Systemic and Domestic Push for Active BMD Armaments

As much as South Korea has long anchored on North Korean threats since the division of the Korean Peninsula in 1945, Taiwan’s security posture has forged against military threats from the mainland China since its separation into disparate political entities in 1949. While China’s outright claims for Taiwan as an integral part of China (One China Policy) have seen ebb and flow over time, China’s rapid military resurgence in the post-Cold War era has accompanied both asymmetric and conventional arms build-up that seriously challenged Taiwanese defense posture across the Strait.

In terms of military expenditures, China began to spend about four times more ($41.3 billion) by 2000, accumulating to about fifteen times disparity in total defense budget by 2018 (China: $154 billion, Taiwan: $10 billion, according to SIPRI Military Expenditure Database). The disparity in arms spending, which excludes personnel and force operating costs from total military expenditures, has been far more profound, China spending about twenty-three times more ($63.4 billion) worth of armaments than Taiwan ($2.8 billion) by 2017. By 2018, China has militarily aggrandized to 1,490 fighter-jets, 240 ships, fifty-two submarines, and about a million of active duty soldiers in the People’s Liberation Army (US Office of the Secretary of Defense, 2018). Taiwan remained limited to 420 fighter-jets, twenty-three ships, two modern attack submarines, about 140,000 ground troops. China’s rapid modernization of asymmetric ballistic and cruise missiles, in this backdrop, has posed far more imminent threats to Taiwan, especially the 300-350 short- to medium-range ballistic missiles deployed in Fujian province of China located directly across the Taiwan Strait, <Table 1>.

Given the seemingly “hopeless” cross-strait military balance in both conventional and asymmetric capabilities, Taiwan’s major deterrence against China has rested on its asymmetric alliance with the US (Thompson, 2018). Indeed, it is generally viewed that the threat of US intervention in case of Chinese aggression may be the only credible deterrence against China. Aside from the systemic push from exogenous threat environment, the asymmetry in the US-ROC relations, particularly by the lack in formal treaty alliance, has been another profound structural force in impelling Taiwanese armaments against China’s increasing missile threats. The 1954 Mutual Defense Treaty agreement that provided US’s military stationing on Taiwanese

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1 SIPRI, Military Expenditure Database. 2018 is the latest SIPRI data available as of March 2020.
soil, as in the case of South Korea, ended with the US’s normalization of diplomatic relations with China in 1979. Although the 1979 Taiwan Relations Act (TRA) was enacted by the US congress in replacement, stipulating the US to maintain its ability to defend Taiwan and provide necessary “arms of a defensive character,” the act included neither of the stationing of US troops nor formal military plans and coordination in times of contingency. Also, the TRA’s clause for providing “defense articles and defense services… necessary to enable Taiwan to maintain a sufficient self-defense capability,” has become increasingly “inconsistent” as the US became more ambiguous in dealing with Taiwan Strait issues (Hickey, 2013). Given the nonbinding and “uncertain” nature of the act (Goldstein & Schriver, 2001), the escalations in cross-strait tensions have made Taiwan heavily dependent on its own armaments.

Table 1  China’s Missile Inventories

<table>
<thead>
<tr>
<th>Missile Type</th>
<th>Range (km)</th>
<th>2003</th>
<th>Number in Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMBs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DF-11</td>
<td>280-350</td>
<td>175</td>
<td>700-750</td>
</tr>
<tr>
<td>DF-11A</td>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DF-15</td>
<td>600</td>
<td>160</td>
<td>350-400</td>
</tr>
<tr>
<td>DF-15A</td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DF-15B</td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRBMs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DF-21C</td>
<td>2,500</td>
<td>0</td>
<td>36-72</td>
</tr>
<tr>
<td>DF-16</td>
<td>800-1,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>IRBMs</td>
<td>5,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cruise Missiles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DH-10</td>
<td>1,500-2,000</td>
<td>0</td>
<td>200-500</td>
</tr>
<tr>
<td>ALCM</td>
<td>3,300</td>
<td>0</td>
<td>Inventory</td>
</tr>
</tbody>
</table>


**Domestic Nudge for BMD Armaments**

Under China’s drastic outspending and uncertain US-ROC relations, the push for autonomous BMD armaments also came from within - convergence among policy leaders at home despite Taiwan’s distinctive political schism over the One China Policy.

Taiwanese domestic politics and approach to armaments have indeed alternated as the power transferred back and forth between the traditional Kuomintang (KMT) to new Democratic Progressive Party (DPP). The KMT, as President Ma Ying-jeou’s (2008-2016) three-no policy represents, inclined to pursue relative moderation or defensive nature of armaments. While the KMT maintains the One China policy in which Taiwan is considered as the only legitimate government, the strategic priorities have lied in namely seeking no unification, no independence, no use of force (Cossa, 2008). As exemplary in the case of the long era of President Lee

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2 Taiwan Relations Act (TRA), enacted on April 10, 1979 (Pub.L. 96-8, 93 Stat. 14).
3 TRA, Section 3(a).
Teng-hui (1988-2000), Taiwanese government pursued the concept of “effective deterrence” as termed in the 1996 National Defense Report (Ministry of National Defense, ROC 1996), later defined as “defensive deterrence” in 1998 National Defense Report (Ministry of National Defense, ROC, 1998), swaying away from preemptive military strategies. In contrast, DPP, not only recognized China and Taiwan as two separate sovereign nations, but also criticized KMT’s defensive posture. As President Chen Shui-bian (2000-2008) replaced the Lee administration, the Chen administration began to modify Taiwan’s military strategy by reconceptualizing the previous “effective deterrence” to refer to enhancing critical air, naval, and information-based countermeasures (Chen, 2009). With emphasis on counterstrike capabilities, the 2004 National Defense Report under Chen administration newly coined the term “Active Defense.”

Although the return to KMT government under President Ma in 2008 (2008-2016) seemed to restore previous President Lee’s defensive take on armaments (Ministry of National Defense, ROC, 2009a; 2009b), the bottom line is that both defensive or offensive-oriented defense strategies of the KMT and DPP leadership, respectively, converged on the ‘existential’ nature of Chinese threat. Taiwanese policy leaders have concurred on threat imminence and need for autonomous armaments, including the state-of-the-art, network-centric BMD capabilities. Taiwanese policy leaders also converged in utilizing the US’s willingness in delivering arms of defensive nature, as exemplary in the case of the BMD, which can be pursued as platform for alliance cooperation in check-balancing China’s increasing assertiveness in the region, and mostly importantly anchor the US’s commitment in defense of Taiwan.

As China tested its missiles in the nearby waters of Taiwan from July 1995 to March 1996, known as the 1995/1996 Taiwan Strait crisis, Taiwanese policy leaders came to stern realization on how China’s ballistic missiles can easily penetrate Taiwan’s defense system. It was in this backdrop that the Lee administration at the time rushed to bring missile defense systems from the US. The heavy criticisms from then Chen-led DPP opposition party played an important role in the push for the BMD. By the 2000s, Taiwan, spending about a quarter of South Korea’s arms procurement budget, fielded three ground-based Patriot Advanced Capability-2 (PAC-2s) in 1997 (Kan, 2006, 12), which are designed to intercept incoming aircrafts and missiles in air. In response to China’s increased missile attacks throughout the 2000s, including China’s launch of offensive decapitation military exercises and operations, Taiwan under the Chen administration since May 20, 2000, further strived for armaments in air and BMD capabilities. Placing utmost primacy in “safeguarding national sovereignty and territorial integrity” against China, President Chen pledged to increase Taiwanese defense budget and “demonstrate Taiwan’s determination for self-defense and eliminate doubts of allied countries” by arms build-up including the “Patriot PAC-3 missiles” (Ministry of National Defense, ROC, 2008, 11) - the enhanced ground-based BMD capability with the so-called “hit-to-kill” advanced interceptive technology absent in the previous PAC-2s. Primarily to arm against China’s continued advancements in stockpiles of short-range ballistic missiles (SRBMs), the Dong Feng varieties, as well as the short-to-medium-range DF-16s (1,000km range), and intermediate-range DF-26s (2,500km), Taiwanese government submitted a request for price and availability data for PAC-3s in April 2003. In 2004, Defense Minister Lee Jye requested six PAC-3 units and upgrade of three existing PAC-2s to the PAC-3 standard for about $4.3 billion (Kan, 2006, 13).

Taiwanese government also began to deliberate on acquiring ship-based (sea-based) BMD capabilities in October 2002 - considering the US-origin Kidd-class destroyers equipped with
Standard Missile-2 (SM-2) that can intercept incoming missiles and aircrafts in air, alike the PAC-2s on ground. Ending in favor of the bill, Taiwan legislature approved the funding by May 30, 2003. With delivery ahead of schedule from October 2005 to 2006, Taiwanese navy since October 29, 2005, has been operating SM-2 equipped Kidd-class destroyers.

The procurement plans for Patriot systems, yet, did experience some delays as the referendum President Chen placed on the Presidential election day on March 20, 2004, to acquire the missile defense systems ended with limited voter turnouts. The considerations for more “cost-effective systems” and oppositions from the ruling opposition party, KMT, in lookout for more amicable relations with China turned out with less than fifty percent of ballots casted at the legislature (fifty percent is needed), blocking the bill from approval until 2008. In response, the Taiwanese government further strived to bypass by submitting the Special Budget in May 2004 (NTI, 2006).

Nonetheless, when Ma Ying-jeou of KMT assumed office since May 20, 2008, China’s increasing military provocations in the late 2000s have ultimately led the KMT government to continue upgrading of the existing fleets of PAC-2 batteries and put down new orders for PAC-3 hit-to-kill interceptive capabilities as part of a $6.5 billion arms purchases from the US in 2008 (AFP, 2016). Three PAC-2 batteries have been upgraded to Configuration-3 PAC-2 GEM, and signed to procure four more PAC-3s in 2009 (Missile Defense Advocacy Alliance, 2018). The PAC-3 missiles have been placed to purchase in 2008 and 2010, accumulated to about 386 missiles from 2010-2013. The four PAC-3 batteries arrived in 2014-2015.

China further ventured into building military bases in the South China since 2012 and increased frequency in the military activity in north and south of Taiwan to conduct military exercises in the Western Pacific. Heightening tensions across the Taiwanese Strait, China’s heavy armaments including the nuclear capable H-6K bombers have crossed into Taiwan’s air-defense identification zone, reaching the record high level of frequency in flying over Taiwanese air space in 2017. As such increasing systemic imperative from China’s military threats in the region have led Taiwan to seek advanced PAC-3 acquisitions in the 2010s, even “at the expense of other capabilities,” “economics of missile defense” have become less of “primary concern” than its defense against China’s asymmetric capabilities (Thim & Yen-fan, 2017). President Ma reconfirmed Taiwan's need to revamp its air and sea denial capabilities, first stipulated under the previous Chen administration. Resonating the Chen administration’s emphasis on how China’s increasing “military satellites, technology of ballistic missile, and information warfare” are the utmost security threats to Taiwan (Ministry of National Defense, ROC, 2002), President Ma in pursuit of “resolute defense” and “credible deterrence,” stated that China’s increasing presence in the region has called for arms build-up including the BMD capabilities (Ministry of National Defense, ROC, 2013). Taiwan currently deploys nine PAC-3 batteries, some equipped with upgraded PAC-2 GEM systems.

Under the systemic push for armaments against China’s increasing asymmetric ballistic missile arsenal and asymmetric US-ROC alliance, Taiwanese policy leaders’ gradual convergence on Chinese threats and mobilization of resources for BMD armaments have further reinforced acquisition of autonomous BMD capabilities, <Figure 3>.

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4 E.g. position of KMT Legislator Shuai Hua-ming, a retired army lieutenant general.
Asymmetric nuclear and ballistic missile threats to South Korea have centered on North Korea’s emergence as de facto nuclear power by the late 2010s. Notwithstanding diverse international, regional, and bilateral efforts over the last two decades to halt North Korea’s bid to acquire asymmetric capabilities, North Korea has accumulated to a total of 117 ballistic missile tests and six nuclear tests (1984-2019, according to the CNS North Korea Missile Test Database), becoming capable of delivering both conventional and nuclear-tipped ballistic missiles to South Korea, Japan, the Pacific Theater, and now the US mainland.

Table 2  North Korea’s Nuclear & ICBM/SLBM Tests (2000-2017)

<table>
<thead>
<tr>
<th>Date</th>
<th>Nuclear Test (Yield)/Missile (Range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-29-2017</td>
<td>ICBM Hwasong-15 (8,500-13,000km: KN-22)</td>
</tr>
<tr>
<td><strong>Sep-3-2017</strong></td>
<td>6th Nuclear Test (100-140kt)</td>
</tr>
<tr>
<td>Jul-28-2017</td>
<td>ICBM Hwasong-14 (8,000-10,000km: KN-20)</td>
</tr>
<tr>
<td>Jul-4-2017</td>
<td>ICBM Hwasong-14 (8,000-10,000km: KN-20)</td>
</tr>
<tr>
<td><strong>Sep-9-2016</strong></td>
<td>5th Nuclear Test (10kt)</td>
</tr>
<tr>
<td>Aug-24-2016</td>
<td>SLBM Pukkuksong-1 (1,200km: KN-11)</td>
</tr>
<tr>
<td>Jul-9-2016</td>
<td>SLBM Pukkuksong-1 (1,200km: KN-11)</td>
</tr>
<tr>
<td>Apr-23-2016</td>
<td>SLBM Pukkuksong-1 (1,200km: KN-11)</td>
</tr>
<tr>
<td>Feb-7-2016</td>
<td>ICBM/SLV Taepodong-2/Unha-3 (4,000-10,000km/+ )</td>
</tr>
<tr>
<td><strong>Jun-6-2016</strong></td>
<td>4th Nuclear Test (7-10kt)</td>
</tr>
<tr>
<td>Dec-21-2015</td>
<td>SLBM Pukkuksong-1 (1,200km: KN-11)</td>
</tr>
<tr>
<td>Nov-28-2015</td>
<td>SLBM Pukkuksong-1 (1,200km: KN-11)</td>
</tr>
<tr>
<td>May-9-2015</td>
<td>SLBM Pukkuksong-1 (1,200km: KN-11)</td>
</tr>
<tr>
<td><strong>Feb-12-2013</strong></td>
<td>3rd Nuclear Test (6-9kt)</td>
</tr>
<tr>
<td>Dec-12-2012</td>
<td>ICBM/SLV Taepodong-2/Unha-3 (4,000-10,000km/+ )</td>
</tr>
<tr>
<td>Apr-13-2012</td>
<td>ICBM/SLV Taepodong-2/Unha-3 (4,000-10,000km/+ )</td>
</tr>
<tr>
<td><strong>May-25-2009</strong></td>
<td>2nd Nuclear Test (2.4kt)</td>
</tr>
<tr>
<td>Apr-5-2009</td>
<td>ICBM/SLV Taepodong-2/Unha-3 (4,000-10,000km/+ )</td>
</tr>
<tr>
<td><strong>Oct-09-2006</strong></td>
<td>1st Nuclear Test (1-2kt)</td>
</tr>
<tr>
<td>Jul-5-2006</td>
<td>ICBM/SLV Taepodong-2/Unha-3 (4,000-10,000km/+ )</td>
</tr>
</tbody>
</table>

While such security environment would place South Korea under similar systemic push for BMD armaments as in the case of Taiwan, the ROK-US relations have been upon formal Mutual Defense Agreement (MDA) and Status of Forces Agreement (SOFA). Unlike Taiwan’s informal alliance ties, the ROK-US alliance provided South Korea with the US’s military presence and stationing of advanced weapons systems including the BMD capabilities - the US Forces Korea (USFK) began to field PAC-2s since 1993, later upgraded to PAC-3s in 2004. Also, the ROK-US security cooperation has been institutionalized under the Combined Forces Command (CFC), under which South Korea maintained the wartime Operational Control (OPCON) of its military under the US leadership.  

In this backdrop, as exemplary in South Korea’s formal response to North Korea’s first Taepodong-launch (intermediate-range ballistic missile) in 1998, South Korea announced that it will not acquire nor join the US-led BMD systems (then, Theater Missile Defense). Unlike how the missile’s flight over Japanese territory and landing in the Pacific Ocean compelled nearby countries including Japan and Taiwan to rush for BMD armaments, South Korea spared little room for autonomous BMD capabilities. Placing utmost priority in “Economic revival” from the 1997 Asian Financial Crisis, South Korea stated that in case of North Korea’s missile contingencies, “USFK’s Patriot missiles can be used, when necessary, not only to protect the USFK but also entire Korean Peninsula including the metropolitan areas” (ROK National Assembly Secretariat, 1998, 70).  

In the 2000s, the ROK-US alliance went through transformations and vacillations as the US shifted their strategic focus to fight their war on terrorism in the Middle East since 9/11. As the 2004 Global Posture Review (GPR) ensued with the USFK’s troop reduction (from 30,000 to 25,000 over 2000s), South Korea and the US also agreed in 2006 to begin phased transfer of the wartime OPCON back to South Korean military. Tied with North Korea’s resort to first nuclear test in 2006, followed by another one in 2009, the 2000s systemic environment seemed to push South Korea to seek autonomous BMD armaments. Unlike the 1990s formal refusal to “acquire nor join the US-led” BMD system, South Korean government pledged to build the so-called Korea Air and Missile Defense (KAMD) system in the 2000s.  

Nonetheless, the bottom line is that with delays in South Korea’s independent KAMD, South Korea’s autonomous BMD capabilities are, as of 2019, limited to the non-hit-to-kill PAC-2s acquired as second-hand from Germany in 2007 (a year after North Korea’s first nuclear test in 2006), sea-based SM-2s, and some PAC-3 upgraded PAC-2s. For advanced BMD capabilities, with relatively belated decision to purchase PAC-3s in 2018, South Korea has rested on the USFK’s PAC-3s, recently added Terminal High Altitude Area Defense (THAAD) in 2017, and SM-3 equipped aegis destroyers stationed outside of South Korean waters, <Table 3>.  

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6 The OPCON was first transferred in July 1950 when North Korea invaded across the 38th parallel, triggering the US’s involvement in the Korean War to repel communist expansion on the Korean War. The OPCON of ROK forces remained so (UNC), with only a ten-day break in May 1961 during General Park Chung-hee’s military coupd’ état. In years 1978-1994, the US retained both wartime and peacetime OPCON through its leadership of the US-ROK Combined Forces Command (CFC). While the peacetime OPCON transferred back to South Korean military in 1994, the wartime OPCON remains under CFC until today.

7 Stated by then Defense Minister Chun Yong-taek.

8 The US declared force reduction from South Korea in June 2003 in implementation of the GPR.
Table 3 Overview: South Korea and Taiwan’s Armaments in BMD

<table>
<thead>
<tr>
<th>Weapons</th>
<th>ROK</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BMD</strong></td>
<td><strong>US-stationed (Alliance)</strong></td>
<td><strong>Advanced</strong> X</td>
</tr>
<tr>
<td></td>
<td>PAC-3, THAAD</td>
<td>-</td>
</tr>
<tr>
<td><strong>Autonomous (Armament)</strong></td>
<td><strong>Lower-end</strong></td>
<td><strong>Low-High Mix</strong></td>
</tr>
<tr>
<td></td>
<td>PAC-2 (+upgrades), SM-2</td>
<td>PAC-2/3, SM-2</td>
</tr>
</tbody>
</table>

Source: By author.

Towards Systemic & Domestic Skewing for Restraint

In the lens of neoclassical realism, both systemic and domestic skewing have been behind South Korea’s continued restraint in BMD armaments. As systemic forces, despite escalation of North Korea’s asymmetric nuclear and ballistic missile threats, the ROK-US’s plans (alliance structure) for troop reduction and/or wartime OPCON transfer of the 2000s have seen continuous delays, limiting major transformations in the combined force structure. In the domestic realms, South Korean policy leaders across both progressive and conservative governments intervened in further reinforcing South Korea’s restraint in autonomous BMD armaments.

Unlike how progressive regimes are often deemed to be more reconciliatory to North Korea and seek more autonomous policy towards armaments than alliance-reliance; while conservatives are seen as more hardlined to North Korea, favorable to pro-alliance armaments; it appears that in the realms of BMD, such “progressive-conservative split” (Chae & Kim, 2008; Snyder, 2017; Shin & Burke, 2008) seemed to matter less. The progressive and conservative governments - despite their varying policy orientations - have gradually come down to prolonging the combined or alliance-reliant nature of armaments in BMD than change.

As for the first progressive regime under Kim Dae-jung (1998-2003), the landmark reconciliatory Sunshine Policy initially reinforced South Korea’s restraint in autonomous BMD armaments against North Korea’s increasing ballistic missile capabilities. Yet, while the consecutive progressive administration under Roh Moo-hyun (2003-2008) inherited the reconciliatory take on North Korea, the deterioration of the US-DPRK relations including North Korea’s withdrawal from the Non-proliferation Treaty (NPT) in 2003 and first nuclear test in 2006 largely constrained Roh’s continued restraint in autonomous BMD armaments. Pursuing enhanced self-reliance while seeking to alleviate criticisms for being ‘lenient’ in response against North Korea’s increasing threats, the Roh administration pledged to build the KAMD. Yet, by capping the BMD armaments to indigenously produced weapons systems and to lower-altitude, Roh administration’s BMD armaments more or less continued to rely on the US-stationed PAC-3s in the 2000s.

When conservative governments returned to power under Lee Myung-bak (2008-2013) and Park Geun-hye (2013-2017) administrations, they have been no less bounded to domestic backlash on their policy orientations. Namely, the conservatives’ ‘hardlined’ take on North Korea received criticisms for provoking North Korea and vicious cycle of arms race. Their deliberation on advanced and/or upper-tier BMD armaments also became reprimanded for being ‘pro-alliance’ and ‘joining’ the US-led BMD architecture in the region. On these grounds, the Lee administration opted to upgrade the second-hand PAC-2s (acquired from Germany in 2007) than place down the order for PAC-3s. For sea-based BMD, the Lee administration also...
Revisiting Neoclassical Realism in Understanding Variations in States’ Armaments: Putting the South Korean and Taiwanese Cases in the Context of Neoclassical Realism

Put down for SM-2 than the hit-to-kill-capable SM-3s. Instead, the Lee administration inherited Roh Moo-hyun’s KAMD and strived to expand to upper-tier missile defense system with indigenously produced BMD - M-SAM and L-SAM - using the KAMD as leeway for BMD armaments against oppositions.

Regardless of varying strategic objectives, both progressive and conservative governments have capped the BMD armaments to lower-tier, low-end assets as interim choices, while insisting on building independent KAMD. Such domestic inclination worked to further skew South Korea’s autonomous BMD armaments towards restraint, despite North Korea’s emergence as de facto nuclear power, Figure 4. Table 4

Source: By author.

**Fig. 4** South Korea’s Restrained BMD Armaments in Neoclassical Realism

As the empirical case study on South Korea and Taiwan’s BMD armaments tried to depict, the variations in armaments despite similar exogenous threat environment arise from different combination of systemic variables, reinforced or abated by domestic variables, as summarized in <Table 4>.

**Conclusion**

All in all, the theoretical merit of neoclassical realism lies in retaining realist’s attention on the external systemic variables and primacy in states’ security concerns, while delving into the domestic political process and policy leaders, in which their pursuit for capability aggregation

<table>
<thead>
<tr>
<th>Variables</th>
<th>ROK</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asymmetric Threats</td>
<td>North Korea</td>
<td>China</td>
</tr>
<tr>
<td>Alliance Structure</td>
<td>Asymmetric</td>
<td>Asymmetric</td>
</tr>
<tr>
<td><strong>Intervening</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic Context</td>
<td>Convergence to Limited</td>
<td>Convergence to BMD</td>
</tr>
<tr>
<td></td>
<td>KAMD + Alliance-reliance</td>
<td>BMD</td>
</tr>
<tr>
<td><strong>Dependent</strong></td>
<td>BMD Armaments</td>
<td>Restricted</td>
</tr>
</tbody>
</table>

Source: By author.
becomes more ‘situationally induced.’ Sitting at the intersection of traditional structural realists’ emphasis on external structure (distribution of capabilities) and liberals’ domestic(agent)-centrism, neoclassical realism shows that while systemic imperatives remain independent push for states’ foreign and security policies, variations or vacillations occur situational to policy leaders’ perception and domestic constraints.

While the study’s comparative analysis on South Korea and Taiwan’s BMD armaments may be limited in empirical depth in the context of existing studies on the topic, the main focus of this study lied in distinguishing and highlighting the theoretical merit of neoclassical realism, which has been often treated as outdated or ambiguous at best, especially in comparison to structural realism and constructivism that continue to dominate as mainstream theories in international relations. Also, although existing studies in application of neoclassical realism often fell to the trap of focusing too much on the domestic variables, becoming indistinguishable from other theories, this study’s take on South Korea and Taiwan’s BMD tried to illustrate how neoclassical realist analysis can be rebalanced to treat external factors as primary and domestic variables as intervening factors - as originally intended - in determining states’ armament priorities.

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