

ALLIED TO RACE? THE U.S.-KOREA ALLIANCE AND ARMS RACE

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The Republic of Korea has rapidly increased its defense budget in recent years. Last year's spending of 26.6 trillion won represents a twofold increase from ten years ago. Now the Ministry of National Defense projects an annual average increase of 7.6 percent to 53.3 trillion won by 2020, another doubling over the next decade. South Korea, notably, raised its defense spending at a higher rate than North Korea at a time when Seoul was taking a more conciliatory policy of engagement. While the Roh Moo-hyun administration increased defense spending ostensibly in response to its policy goal to build a more autonomous military, the U.S.-Korea alliance motivated and shaped South Korea's military transformation. This article examines the degree to which external threats, domestic interests, and the alliance have affected the South's military spending and transformation.

Key words: East Asian security, South Korea, military spending, South Korea-U.S. relations, arms race

Introduction

The Republic of Korea (South Korea) has increased its defense budget fourfold in less than twenty years, from 6.6 tril-

lion won in 1990 to 26.6 trillion won in 2008. Last year's spending represents a twofold increase from ten years ago; and now the Ministry of National Defense's (MND) *Defense Reform 2020* projects an annual average increase of 7.6 percent to 53.3 trillion won by 2020, another doubling over the next decade.¹ Is Seoul engaged in defense-budget doubling projects every ten years? Why has South Korea's military spending increased so much in recent years, and especially under the liberal governments of the past ten years? Why does it keep growing? Is there any pattern that we can discern in South Korea's military spending?

South Korea has continuously increased its military spending since 2000 at a rate higher than conventional explanations would expect. Its spending grew 200 percent for the past ten years, higher than would be warranted by the growth of its economy or government budget over the same period. South Korea also, notably, raised its defense spending at a higher rate than North Korea did at a time when Seoul was taking a more conciliatory policy of engagement, commonly dubbed the "sunshine policy." Its defense spending increased ostensibly in response to its policy goal to build a more autonomous military under the Roh Moo-hyun administration. But closer examination shows that the U.S.-Korea alliance in fact strengthened during this period and served as driver of South Korea's military transformation. Furthermore, Roh's predecessor and successor have, despite their opposite political orientations, strengthened the military in a way that dovetails with changes in American strategy and military. This article examines how the South's military transformation, in quantity and form, is attributable at least partly to the pressure that its alliance with the United States keeps on Seoul to maintain military readiness and interoperability.

This article critically examines three main groups of factors

1. The annual average increase rate is from Ministry of National Defense, *Kukpangaehyök kibon'gyehoik* [Defense Reform Basic Plan] (2009-2020), June 26, 2009, p. 29. The estimated amount for 2020 is based on the previous version of the plan. Kim Ki-jöng, "Kukpangaekyök 2020 chölyök kaep'yön" (Defense Reform 2020 Force Restructuring), *Tip'ensütajmju* (Defense Times), June 2006, p. 64.

that affect Seoul's military expenditure, showing their contributions and shortcomings. First, it shows that the conventional North Korea threat explanation is more effective in dealing with the past than with more recent periods. Second, it argues that internal factors go far toward explaining some cases of weapons acquisitions. Finally, it suggests that the quantitative growth and qualitative change of South Korea's military are closely correlated with the requirements of alliance readiness, although the alliance produces countervailing effects on Seoul's military spending.

External Threats

According to realist conventional wisdom, a state allocates resources to the military as a means to provide for survival. Since the minimal goal of a state is its survival against potential threats, the amount of its military spending is proportional to the level of threat it faces. A state in a benign strategic environment may keep its security expenditure to a minimum so it may allocate more resources to internal welfare, even if it may not be able to completely eliminate the military for fear that today's friends should become tomorrow's enemies. But a state facing a clear and present danger is forced to spend whatever is necessary to defend against an external threat even at a great cost to internal welfare. While scholars note a dilemma a state faces in striking an optimal balance between guns and butter, they tend to agree that the higher the level of threat, *ceteris paribus*, the higher the defense spending. Richardson's classic arms-race model uses external threat as a driver of arms race because one's increase in military capability increases the threat perceived by a potential adversary, who then increases its own military strength.²

This in fact has been the primary explanation of South Korea's military spending: that Seoul must defend against the

2. Lewis Fry Richardson, *Arms and Insecurity: A Mathematical Study of the Causes and Origins of War* (Pittsburgh, Penna.: Boxwood Press, 1960).

North Korean threat. The Republic of Korea Army (ROKA), for example, acquired tanks, M48s, mainly because it feared another blitzkrieg spearheaded by the North's tank forces, as in the early stage of the Korean War. Traumatized by the experience of the war, the ROKA has continued to upgrade its tanks and has acquired new ones even while building all manner of defenses against the North's tanks. The earlier history of Seoul's spending growth can be readily explained in terms of its strategic need to catch up with North Korea, its main threat, which was enjoying an edge until the early 1970s.³ Seoul still identifies the North as a "direct and serious threat" and justifies its military spending in the same terms: "a country in conflict, such as ours that constantly faces North Korean threat, must analyze 'security threats' first to determine the military requirement and use the requirement to calculate the size of the defense expenditure."⁴

Such a realist perspective, however, fails to explain recent patterns of military spending by South Korea. Most economic and military indicators show that South Korea has an edge over North Korea in almost all measures of power. The size of the military according to a "bean count" is probably the only indicator in which the North has an advantage. But North Korea's quantitative advantage quickly fades when one takes account of the qualitative disadvantages of operating its 1950s-vintage weapons systems against the state-of-the-art systems of the South. Most serious analysts conclude that "North Korea never had a lead over South Korea, and after the 1960s quickly began falling behind."⁵

If the North's threat is the main driver of the South's military

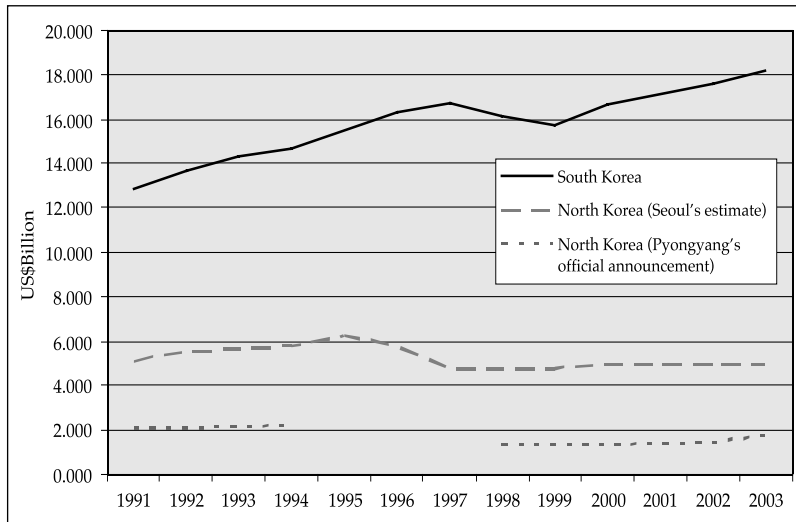
3. Taik-young Hamm, *Arming the Two Koreas: State, Capital, and Military Power* (New York: Routledge, 1999).

4. Taehanmin'guk kukpangbu, *2008 Kukpangbaiksŏ* (2008 Defense White Paper), January 19, 2009, p. 36; Taehanmin'guk kukpangbu, *Kukkaanbowa kukpangbi* (National Security and National Defense Expenditure), November 6, 2008, vol. 6, at www.mnd.go.kr/cms_file/jungcheck/mnd2020/09budget.pdf.

5. David C. Kang, "International Relations Theory and the Second Korean War," *International Studies Quarterly*, vol. 47, No. 3 (2003), p. 308; J. J. Suh, *Power, Interest, and Identity in Military Alliances* (New York: Palgrave Macmillan, 2007).

spending, why didn't Seoul slow down its budget increase in the 1990s when its defense budget was seven times that of the North? Why did it feel compelled to keep increasing its defense budget to widen the gap to a 10:1 ratio by 2002? In the 1990s North Korea was having serious difficulties, which turned into a massive starvation and an economic crisis in the latter half. Its military spending too showed a marginal increase in the early 1990s, only to fall precipitously in the latter half. But Seoul continued increasing its military spending as if it were indifferent to the relative and absolute decline of the North's power. The increase is all the more puzzling because it was maintained even as the Kim Dae-jung and Roh Moo-hyun governments pursued rapprochement with the North. The two liberal governments, in fact, tripled South Korea's defense budget from 9.9 billion won in 1998 to 28.6 billion won in 2008, just when Pyongyang was struggling to survive. The South's continuous increases in the 1990s and early 21st century defies the external threat explanation.

Figure 1. North Korea and South Korea Defense Spending, 1991~2003



Sources: SIPRI Yearbook: World Armaments and Disarmament, various years; Ministry of National Defense, 2004 Defense White Paper, Seoul, Korea.

Although the overall pattern of the South does not fit the expectation of the external threat theory, its recent acquisition of some weapons systems is directly related to the North's asymmetric capabilities. Seoul has purchased *Patriot* missiles (PAC-2) and built the *Aegis* ships. Also it has produced *Hyunmu 1* and *2*, cruise missiles that can hit targets anywhere in North Korea. The Defense Reform 2020 plans to "greatly expand the capabilities of surveillance, reconnaissance, precision strike, and interception so that the North's asymmetric (nuclear and missile) threats may be intercepted and eliminated within North Korea." The *Korean Defense Daily* (*Kukpang ilbo*) projects that once these systems are in place, South Korea's military "will acquire the first-strike capability."⁶ The South's pursuit of the first-strike capability is at least partially responsible for the continued increase in its military spending.

Internal Drivers

Korea's Military-Industrial Complex

The above realist accounts of military spending have had difficulties in explaining not only the Korean case but also the experiences of the United States and other countries. Pointing to the failure of realist theories to explain the pattern of U.S. military expenditures, scholars have turned to domestic factors as a driver of defense spending. Ever since President Dwight D. Eisenhower warned against the possibility that a military-industrial complex might wield too great an influence on military policies, defense contractors and the military have been seen as behaving according to narrow self-interest to protect their jobs and businesses. Liberals, who see politics as competition and cooperation among

6. Kukpangbu kukpanggyoyukchöngch'aikkwansil (National Defense Education Policy Office), "Kukpanggaikyök 2020 kibon'gyehoik," *Kukpangilbo* (*Korean Defense Daily*), July 1, 2009, available at <http://kookbang.dema.mil.kr/kdd/PolicyTypeView.jsp?writeDate=20090710&writeDateChk=20090701&menuCd=3001&menuSeq=3&kindSeq=2&menuCnt=30915>.

self-interested individuals and groups, have refined this basic insight into interest-group theories, sometimes merging them with theories of political institutions. Many empirical studies have been done to make sense of the growth of military spending by the United States or the Soviet Union during the cold war even if they differ on what specific internal factors caused the growth. While they lack the ability to account for the overall level and pattern of military spending, they usually do a good job of delineating a specific arms purchase or military policy.

Writing about Korea's defense industry in the mid-1980s, Chung-in Moon noted "a potential for the gradual formation of a military-industrial complex,"⁷ and by 1990, Kim Yong-nam talked of a "military-industrial complex of developing-country-type" being formed in Korea.⁸ Whether or not it constitutes a military-industrial complex, a dense network has developed between the Korean government, the military, and the defense industry. This network certainly benefits from the alliance relationship.

The military-industry sector was not to be slighted. In 1991 there were eighty-four defense contractors designated as "defense industry" by the Ministry of National Defense, and hundreds of subcontractors, with total sales of 1.7 trillion won. By 2008, the number of defense contractors grew only slightly to eighty-nine, and they produced 1,442 defense products, with total sales of 5.5 trillion won.⁹ From the mid-1970s to 1991, military industries had invested a total of 1.2 trillion won in facilities and equipment; if dual-use facilities are included, the total is 3.3 trillion won. As of 1991, defense contractors employed 53,000 personnel. Even if the dual industries are excluded, the number is still

7. Chung-in Moon, "South Korea: Between Security and Vulnerability," in James Everett Katz, ed., *The Implications of Third World Military Industrialization: Sowing the Serpents' Teeth* (Lexington, Mass.: Lexington Books, 1986), p. 258.

8. Kim Yong-nam, *Kunsajangbi kuksanhwa pangane kwanhan yŏn'gu* [Study on Means to Domestic Production of Military Equipment], M.A. thesis, Korea National Defense University, December 1990.

9. Kukhoiyesanjŏngch'aikch'ŏ (National Assembly Budget Policy Office), *2007hoigyeyŏndo kyŏlsanbunsŏk (4)* [Analysis of 2007 Budget Year Finance], July 2008, pp. 340-41.

about 28,000.¹⁰

The MND typically allocates one third of its budget for armaments. In 1991 alone, the ministry, through the Defense Logistics Agency, spent 2.9 trillion won on local purchases, of which contracts with Korean defense firms represented “a substantial proportion.” Foreign purchases amounted to 590 billion won, of which over 60 percent were FMS (foreign military sales) purchases from the United States. The government was not just the sole consumer of military goods, it was also the major source of funding for defense contractors. In 1996, for example, the MND set up the “Defense Industry Promotion Fund,” through which it disbursed 52.3 billion won to thirty defense contractors as research and development (R&D) assistance. In the same year, it also provided defense contractors with loans worth 30.3 billion won.¹¹

A special group of go-betweens has emerged between the defense contractors and the government to facilitate the exchange of money and goods. According to a ministry document, 326 retired officers were employed in defense industries as of 1996.¹² The number, substantial as it is, does not reveal the full extent of government-industry connections. Often the connections are quite personal. An officer who had worked on a particular weapons system would no sooner retire than get hired by the company that manufactured the very same weapons system. For example, a retired brigadier general who as chief of the Tank Project Task Force had overseen the army’s K-1 tank development project was hired upon his retirement as executive vice president and chief operating officer of the Defense Systems Division of the Hyundai Precision Industry, manufacturer of the

10. Ch’oe Söng-Bin and Han Nam-Söng, “Chönhwan’gi pangwisanöptü yökhalkwa chinro” (Role and Direction of Defense Industry in Transitory Period), *Kukpangnonjip* [Quarterly Journal of Defense Analysis], No. 21 (Spring, 1993), p. 102.

11. MND, ‘97 *Kukchongkamsa yogucharyo* (1) [Requested Material for National Audit 1997], September 1997, pp. 499, 502.

12. *Changgyo chönyökcha ch’wiöp hyönhwang* (Employment Status of Retired Officers), a written answer to the legislative committee, Ministry of National Defense, July 1996.

tanks. Daewoo Heavy Industry, which produces warships, had as its vice president a retired brigadier general from the navy headquarters. Samsung Aviation, the primary contractor of the Korean fighter project, employed a retired major general (former commander of air force education) as advisor, a retired major general (former air force logistics commander) as vice president, and a retired colonel (former air force technology school president) as factory president.¹³

The practice of “parachuting” retired officers into private sector positions is not limited to defense contractors. Retired military officers are also employed *en masse* by trading companies that import military equipment and software. As of 1997, there were 339 arms-import agencies, and practically all of them were owned and staffed by former officers. Although the exact amount of the commissions they received from imports in recent years is not known, their total commissions in 1990 alone ran to over \$9 million. The amount is likely to have jumped significantly since 1993 when the Ministry of National Defense abolished the ceiling on commissions.¹⁴ The increase in weapons imports later in the 1990s also helped boost the sum of the commissions reaped by these weapons traders.

The Politics of Choosing Weapons

All in all, under the best of circumstances, these employment patterns constitute a channel that helps smooth weapons purchase process. Under shadier circumstances, they degenerate into conduits for officers and arms dealers to exchange favors. Under the worst circumstances, they become a “free-for-all,” putting the cart before the horse: Defense contractors’ business interests take precedence over defense needs, a not uncommon practice in the military’s weapons purchase process. Before a service decides on

13. MND, *Pangsanöpch'e changgyo ch'wiöp hyönhwang* (Defense Industry Employment Status of Retired Officers), July 1996.

14. Office of Procurement, Ministry of National Defense, *Muyöktajerijön myöngbu* (List of Trading Companies), October 1997; and MND, *Muyöktajerijön susuryo hyönhwang* (Status of Trading Agents' Commission), October 1997.

a weapons system, it prepares an ROC (Required Operating Capabilities) that details capabilities that the service desires. Only after it completes the ROC does it begin to examine available weapons systems in order to choose the one that best satisfies the ROC. That is the process in theory. In reality, however, when a service of the army sets out to prepare its ROCs, the first thing it does, more often than not, is to acquire information on an overseas weapons system. Using that information, the service then makes up its ROC and ends up selecting the weapons system on which the ROC was based. And when the military obtains information from weapons importers, who monopolize technical data on foreign weapons systems, “there exists a possibility that weapons system selection is done not by analysis but by the arms agency’s PR activities.”¹⁵

It is a reality that many former officials, who had worked in [acquisition] related offices of the Ministry of National Defense or in a branch of the armed services, are employed by arms import agencies and exercise their direct or indirect influence over ROC, planning, and implementation.¹⁶

Defense industries’ interests, under some circumstances, override pure security considerations in arms procurement decisions, as the following example of the K-1 upgrading project illustrates. After successfully developing the K-1 tank by 1988, the South Korean military began to upgrade it in the early 1990s. The “up-gunning” project, which included replacing the K-1’s 105 mm. gun with a 120 mm. gun, was initiated to deal with the T-72 tanks that North Korea was thought to be poised to acquire from Russia. The upgrading project was imperative, the MND argued, since the K-1 tank’s 105 mm. gun did not have enough firepower to penetrate the T-72’s thicker and stronger armor.

But by the mid-1990s, it became increasingly clear that Pyongyang was not acquiring T-72s and would be unable to purchase them. The country’s worsening economic situation was causing massive starvation, and Moscow was reluctant to sell the

15. Kim Yong-nam, *Kunsajangbi kuksanhwa pangane kwanhan yŏn’gu*, pp. 77-78.

16. *Ibid.*, p. 78.

tanks to the North because it wanted to expand ties with the South. Ironically it was the South, not the North, that received Russia's most sophisticated tanks, the T-80Us, in the mid-1990s. By the end of the decade, North Korea had not received a single T-72, and certainly no T-80s, and its tank stock consisted largely of 1950s models that the K-1's 105 mm. guns could easily destroy. Nonetheless, the up-gunning project proceeded as if the absence of T-72s in the North's arsenal did not matter. The up-gunning and upgrading of a K-1 to a K-1 A-1 was not driven so much by military need as by Hyundai Precision Industry, which faced the problem of idling its tank production facilities after completing its order of K-1 tanks. Building on this momentum, the army is slated to roll out an even newer model, K-2, in 2016 and round out the armor modernization with 950 K-2 PIP's by 2020.¹⁷

Another example of industry interests overriding security considerations was provided by Prime Minister Kim Jong-pil's call in May 1999 for more funding to keep the F-16 fighter production lines "warm." The Korean Fighter Program (KFP) was scheduled to terminate at the end of 1999 when all of the planned 120 F-16s were to have been assembled, which would close down production lines.¹⁸ Defense contractors involved in the KFP, therefore, had an interest in getting more orders. The Aerospace Industry Development Policy Board, established in 1990 to guide policy for Korea's nascent aircraft industry, held its second meeting in April 1999 to discuss the Basic Development Plan for Aerospace Industry. The Ministry of National Defense was at loggerheads with the Ministry of Industry and Resources (MIR) over the plan. The MND, reflecting the air force's view, argued for termination of the KFP and an early start of the KTX

17. Kim Ki-jöng, "Kikyehwa, p'obyöng, hanggongi haeksim" (Mechanization, Artillery, and Air are Key), *Tip'ensütaimjü*, June 2006, p. 71.

18. The KFP was completed in 2004 when the last batch of KF-16 fighters was delivered. As of May 2009, the South Korean Air Force is looking to upgrade the radar and armament systems of its KF-16 fleet in an effort to boost the country's air defense capability. "South Korea to Upgrade KF-16 Fighter Jets Naval Open Source INTelligence," May 2, 2009, at <http://armoredd.com/home/archives/1996>.

project (a supersonic trainer production program), whereas the MIR, representing the interests of the aircraft consortium led by Samsung Avionics, advocated an extension of the KFP. In the end, the Aerospace Industry Development Policy Board sided with the MIR, reflecting the degree to which economic interests, born out of military considerations, were now overshadowing national-security concerns in weapons procurement decisions. As one anonymous air force officer told the Associated Press, “some cabinet ministers were mixing national defense with business interests.”

The above cases illustrate the gray area between national security and economic interest. But there is an even less transparent sector of this military-industrial network that mixes weapons deals with side payments. William Hartung graphically details an aspect of this sector in his description of Northrop Grumman’s failed attempt to sell F-20 *Tigersharks* to South Korea. Featuring a host of colorful characters—mob leader “Wheelchair” Kang, who was wheelchair-bound after a gang feud; “Pistol” Park, who was known for his “pistolmanship” and close friendship with Korea’s President Chun Doo-hwan; and Northrop’s chairman and CEO, Tom Jones—the fiasco involved elaborate and illegal schemes to exchange millions of dollars for a contract. It is impossible to ascertain the extent of this dark sector, which spanned the Pacific and involved government officials, military officers, and businessmen. Suffice it to note that every major weapon purchase or production contract to date has been accompanied by charges of corruption. The magnitude of this corruption was reflected in the fact that Korea’s force modernization effort begun in 1974 was so tainted with massive scandals that the Ministry of National Defense felt compelled to change the name from the Yulgok Program to the Force Improvement Program (FIP).

The usefulness of these explanations, however, is limited. The military and defense contractors in South Korea undoubtedly have a selfish interest to protect, if not promote, their own welfare, and they have taken advantage of the democratic opening to pursue their self-interest. But those with interests in keep-

ing the defense budget as high as possible represent a small segment of the state and society involved in national security policy making. As of 2008, the eighty-nine companies designated as the “defense industry” registered total sales of 5.5 trillion won, only 7 percent of the total sales of the companies and less than 1 percent of Korea’s gross domestic product (GDP).¹⁹ Also, though the Ministry of National Defense is one of the largest bureaucratic bodies in the Korean government, only a small number of its officials handle acquisitions, and their narrow self-interest is counterbalanced by institutional monitoring and audit. Hence, while internal drivers may account for, or contribute to, individual cases, they fall short of explaining the overall size of the defense budget. Furthermore, democratization serves as a double-edged sword. On the one hand, it creates an opening for private interests to influence government decision-making. But on the other hand, it makes the government more subject to competing demands and increasing oversight.

Alliance as a Supplement

Other scholars have elaborated on the baseline realist account to take into consideration the effect that a military alliance has on a country’s defense budget. Their studies usually note that an alliance has a dampening effect because it aggregates resources. Several scholars explain alliance formation in terms of the lowest cost choice between arms and alliance on the basis of the assumption that an alliance reduces one’s military cost by replacing at least some of one’s own defense expenditures.

There are two ways to assess the contribution that a country makes to its ally’s defense, although neither is an easy or perfect

19. Choi Söng-Bin, “Pangwisanö: yuji palchön ch?ngch’aekpanghyange taehan cheön” (Defense Industry: Policy Suggestions for Its Maintenance and Development), *Kukpangkwa kisul* (Defense and Technology), No. 169 (March, 1993), p. 15. By 2007, the number of military contractors had increased to eighty-one and the total volume of sales to 4 trillion won.

measure. One can either calculate the resources allocated for the ally's defense or, counterfactually, estimate the marginal increase in the resources that the ally would have to spend if it lost the country's support. The former is better at counting tangibles such as the number of soldiers and weapons systems deployed in or for the ally, and aggregate them to calculate the total support the country gives to its ally. While it may be easier to count the tangibles, the intangible contributions that a country makes to its ally's defense may be more important and expensive in some cases. Either way, the total defense contribution is seen as reducing the ally's security burden by that amount.

Using the first yardstick, we may estimate the total sum that the United States expends to support South Korea's defense. One rudimentary estimate would take the number of American soldiers stationed in Korea as an indicator of the proportional slice of the U.S. defense budget if indirect costs, such as expenses on strategic forces and R&D, can be assumed to proportionately support each soldier. According to one estimate, the combined U.S.-South Korea expenditure totaled about \$12 billion in 1986. Since South Korea alone spent approximately \$5 billion that year, Washington contributed about \$7 billion worth of force. Others estimate that one third of the U.S. defense budget goes to its forces in Asia-Pacific and therefore, by extension, to what the United States would deploy in case of a contingency in Korea.²⁰ If the cost is limited to the in-country expenses incurred by U.S. forces deployed in South Korea, however, the amount is a more limited \$1.2 billion (as of 2004), the figure used by the allied governments to figure out Seoul's "host nation support."

Using the second, more indirect measure is more complicated for it involves counterfactual estimates. One needs to estimate the marginal increase in Seoul's defense expenditure if the alliance were terminated. This in turn involves assessing two kinds of costs. First, if the alliance were terminated and the American mili-

20. Earl E. Ravenal, "The Defense Planning Process as a Pivotal Determinant of a Nation's Foreign Policy: The U.S. FY 1998 Defense Budget and Its Critics," paper presented at the Annual Meeting of the American Political Science Association, Washington, D.C., August 29, 1997.

tary withdrawn, Korea would first have to fill the void with its own forces at its own cost. Some 40,000 American soldiers would have to be replaced with Koreans, and all the facilities manned by Americans would have to be managed by Koreans. These extra personnel would have to be paid, and the operating costs of the facilities would have to be borne by Seoul. This is exactly the argument that the Ministry of National Defense made in its defense of the alliance:

The U.S. Forces in Korea help us [Koreans] reduce our defense spending, which contributes to our continued economic development. If we take into account all the equipment and materials that the USFK maintains in-country as well as the several billion dollars it spends on maintenance and operations, its opportunity cost is tremendous. If the USFK should be withdrawn, it would take an astronomical amount of additional defense expenditures to compensate for its absence.²¹

Second, if the alliance were terminated, it could potentially disrupt the flow of parts and materials, causing an incalculable disaster in equipment maintenance and production that might even compromise the ROK army's readiness. The work of many of Korea's defense contractors would grind to a halt as Korea failed to obtain necessary parts. Many U.S. contractors would lose customers. These secondary costs are difficult to estimate but are frequently used as a reason for maintaining the alliance. Typifying such justifications, Hwang Tong-Jun, Director of the Weapons Systems Research Center, has argued that, despite the need to diversify the sources of weapons imports, "we need to focus on our cooperation with the U.S., which has developed over the past 20 years and which has sustained weapons interoperability."²²

While there is no dispute about the contributions that the United States has made to Korea's defense, it is analytically difficult to show that its contributions have produced a replace-

21. Ministry of National Defense, "Chuhanmigunü yökhalkwa chudun p'ilyosöng" (USFK's Roles and Necessity), March 6, 2000, at www.mnd.go.kr/mnd_fileup/02/01/04/162024_III.hwp.

22. Hwang Tong-Jun, "Pangwisanöp, ödirogana" (Whither Defense Industry?), *Wolgan jungang*, August 1991, p. 298.

ment effect, not only because its contributions serve U.S. strategic needs but also because Korea's military spending grew even when Washington's security commitment remained constant or grew. In the 1950s and 1960s, Washington provided economic and military assistance—especially so-called counterpart funding—not just as a supplement but also as an inducement for Seoul to raise the size of the military and defense budget. Even as President Richard Nixon withdrew one division from South Korea, he increased other types of defense assistance to compensate for the decrease in Korea's defense readiness that might result from the force reduction. President Jimmy Carter threatened to cut U.S. aid if Seoul did not go along with his policy, but he ended up giving aid without any troop withdrawal. Through the 1970s, President Park Chung-hee, fearing American withdrawal, launched an ambitious program to build Korea's independent military capability. But in the 1980s, when President Ronald Reagan made unqualified commitment to South Korea's defense, President Chun Doo-hwan still went ahead with the military modernization program. In other words, South Korea kept beefing up its military regardless of the level of American support.

This, in turn, raises the question about the degree to which U.S. Forces in Korea (USFK) needs to be replaced in order to maintain a strategic balance against the North Korean military.²³ The Roh Moo-hyun government justified some of its new weapons development programs in terms of the need to substitute for the U.S. capabilities that would be withdrawn by 2012 when wartime operational control will be transferred to the ROKA, but it is at least questionable whether all of those capabilities need to be acquired by South Korea. For example, the Kumgang and Paektu Projects would, upon their completion, give the ROKA the ability

23. This question gets further complicated by the transformation that the U.S. military is going through, because in an emergency South Korea would be supported not only by U.S. assets in the country but also by those that could be flown in from overseas. At the same time some of the U.S. forces in Korea can be flown out for contingencies outside the Korean peninsula.

to monitor North Korea's military activities almost anywhere in the country. Given that the North Korean military has only rudimentary reconnaissance and surveillance capability, any additional high-tech surveillance systems to replace what the United States currently provides could potentially be overkill. The ROKA maintains such a high force-to-space ratio that even without the benefits of the high-tech systems, it could block any blitzkrieg attempt by the North. Thus, while the U.S. military adds to the South's capability, some of its contribution may be superfluous, especially given that Seoul is already enjoying military advantages over Pyongyang. The alliance's supplementary effect, therefore, will be smaller than it seems at first.

Alliance as a Driver

The Costs of Interoperability

While a military alliance as a tool of pulling security resources together reduces the defense burden for each ally, there are at least four reasons why an alliance may increase each member's defense spending. First, the need to keep allied militaries interoperable generates pressure to allocate resources to meet the need for hardware, software, and human resources. Second, the political need to keep an ally happy can lead to a provision of military aid or to the sale or purchase of weapons or commercial goods. Third, a country may be persuaded to maintain a level of force by its fear of abandonment by its ally at a time of crisis. "Abandonment fears" lead the allies to invest in making their links as unbreakable as possible. Finally, a country may be dragged into a conflict in which its ally is involved. "Entrapment fears" reduce, if not counterbalance, the supplementary effect of the alliance to the extent that allies develop their capabilities independent of the alliance. Entrapment, of course, incurs direct costs of fighting as well as indirect costs of supporting the ally.

It is not easy or cheap to keep modern allied militaries interoperable, for interoperability requirements lead to three types of

durable and expensive investments.²⁴ First, allies need, at a minimum, to be able to identify each other, so as to minimize friendly fire and to coordinate their exercises and operations. Their weapons systems and platforms must be designed and produced to ensure interoperability between the allies' assets. With further military integration, they need to ensure that both can rely on each other's ammunition and POL (petroleum, oil, and lubricants). Airports, ports, roads, and railroads may need be configured and maintained in order to enable an ally's operation.

Second, the allied militaries need to customize the way allied militaries use equipment and manpower to achieve their joint objectives. The processes that require investment include consultation and coordination mechanisms, military planning, command structure, and the operation of combined forces and combined exercises. Alliance military practices are guided and governed by a host of rules, ranging from treaties and agreements to domestic laws and regulations, in addition to the standard operating procedures (SOPs) and rules of engagement that apply to most military activities. This software infrastructure represents another set of expenditures that allies make to carry out alliance obligations.

Third, costs are incurred by the need to move human assets in teams or train them to work together. Allies make a durable investment in alliance personnel so that they "learn by doing" or "learn on the job" about their allied partners, as well as about the alliance-specific hardware and software infrastructure. Alliance practices typically involve training about allies, combined exercises, and exchange of officers. Allies also invest resources to educate soldiers about the history, culture, and politics of the ally as well as to teach at least some of them the ally's language.

If the interoperability requirements lead to these three kinds of investment, which add to a country's defense spending, allies also have political needs to meet. On the one hand, the wealthier ally bears the burden of helping out its ally by providing military or economic assistance that will enhance the ally's strength.

24. See Suh, *Power, Interest, and Identity in Military Alliances*, ch. 3.

The more powerful ally may come under pressure to transfer weapons systems to an ally free of charge or at a “friendly” rate. These pressures were particularly strong during the cold war when the two superpowers competed with each other for allies. But even afterward, the strategic circumstances of, for instance, the global war on terrorism, have generated a need to invest in reconstructing the ally’s economy or military. On the other hand, the weaker of the two may purchase its ally’s weapons systems or other goods as a way to signal its commitment to the alliance or buy the ally’s interest. The powerful give what they can, and the weaker buy what they must, to paraphrase Thucydides.

Operating from Fear

These political needs are, in turn, grounded in the contradictory fears that plague alliances, and they diminish the supplementary effect on allies’ defense burden. The literature on military alliances notes that while alliances are designed to help the allies meet their partner’s security needs by sharing defense burdens, they face two kinds of fears that cannot be completely removed. On the one hand, a country fears that it might be abandoned by its allies precisely when its security is threatened, because its allies may judge it too costly to save it from the threat. On the other hand, a country worries that it might get dragged, by its alliance commitment, into a conflict in which its allies are embroiled, even if it does not want to get involved. The twin fears of abandonment and entrapment lead allies to take remedial action, adding to their military spending, although an action taken to allay one fear is bound to exacerbate the other: Tightening the alliance, or “chain-ganging,” reduces the abandonment fear at the risk of raising the entrapment fear, whereas loosening alliance commitments diminishes the danger of entrapment at the cost of a higher possibility of abandonment. These contradictory fears constitute a dilemma that leads allied partners to spend on security one way or another.²⁵

25. Glenn H. Snyder, “The Security Dilemma in Alliance Politics,” *World*

Abandonment fear, which dampens one's expectation of allied contributions, serves as a constant reminder that one must maintain at least a minimal ability to provide for one's own security no matter how trustworthy the ally might currently be. Changes in domestic politics or international circumstances may alter the ally's calculation tomorrow, and the ally will betray the alliance if the benefits of doing so outweigh those of honoring the commitment. A state's predilection to shift its defense burden to an ally, therefore, is counterbalanced by its fear of abandonment.

Abandonment fear may do more than merely dampen the supplementary effect of an alliance. The more strongly a state fears abandonment, the more likely it is to explore ways to reduce the likelihood of abandonment. Such "chain-ganging" can take various forms. It can provide services that its ally desires, as for example when President Park dispatched two divisions of the Korean military to Vietnam to help out the United States. It may seek to influence the opinion of decision makers with economic assistance or purchase orders. It may even try lobbying as a last resort, as the Koreagate scandal revealed.²⁶

Entrapment fear itself may not directly increase defense spending unless an alliance is already so entrenched with a high level of interoperability that loosening the alliance involves undoing at least some of the interoperable features. But entrapment fear can lead to side payments if one's "buck passing" deepens the other's abandonment fear so much that the abandonment fear must be addressed, as, for example, when the Eisenhower administration agreed to sign the Mutual Defense Treaty with President Syngman Rhee as a way to end its entrapment in the Korean War.²⁷ President Nixon tried to reduce the U.S. defense burden and entrapment in Asia by withdrawing

Politics, vol. 36, No. 4 (1984), pp. 461-95.

26. Robert B. Boettcher and Gordon L. Freedman, *Gifts of Deceit: Sun Myung Moon, Tongsun Park, and the Korean Scandal* (New York: Holt, Rinehart and Winston, 1980).

27. Walter G. Hermes, *Truce Tent and Fighting Front* (Washington, D.C.: Office of the Chief of Military History, United States Army, U.S. Government Printing Office, 1966).

some forces from the region, but he ended up agreeing to increase military assistance to allay Seoul's security concerns.²⁸

Entrapment itself can be highly costly, as Jefferson said when he warned the neophyte republic against "entanglement" in costly European wars. Despite the warning, the United States has been entrapped in its allies' or friends' wars at a great cost to itself. While President Park voluntarily dispatched the Korean military to Vietnam out of political and economic considerations, President Roh Moo-hyun came under pressure from the George W. Bush administration to contribute to the U.S. war in Iraq and later Afghanistan. In 1994, President Kim Young-sam found himself caught in the uncomfortable position of having to deal with the likelihood that the United States might use its military against North Korea's nuclear facilities in Yongbyun.

States have used various measures to address the contradictory fears associated with alliances but have found no satisfactory solution that can allay both fears at the same time. The revolution in military affairs (RMA) pursued by the Bush administration is perhaps unique in simultaneously exacerbating both of these fears inherent in an alliance relationship, even though part of its goal was to allay them. The military transformation has sought to leverage new technological developments to maximize the mobility as well as the accuracy and lethality of the U.S. military. Its emphasis on mobility frees the forces from a fixed battle position and enables them to be rapidly deployed to distant places, making it possible to move U.S. bases out of inhospitable or potentially dangerous areas. While this may reduce American fears of entrapment, it increases their allies' concerns about abandonment. At the same time, the newly acquired U.S. mobility, which may reduce American fears of abandonment, makes it potentially more likely that American allies can be involuntarily drawn into a conflict in which the United States is engaged, either because the U.S. military is deployed from allied bases or because U.S. forces are brought in

28. Joo-Hong Nam, *America's Commitment to South Korea: The First Decade of the Nixon Doctrine* (Cambridge, UK: Cambridge University Press, 1986).

from afar, dragging the ally into the conflict.²⁹

Not only does the military transformation shift the burden of the twin fears to allies, it also adds a new challenge to keep up with America's transformation so that allied militaries might operate seamlessly together. As the U.S. military leapfrogs into a 21st-century high-tech force equipped with state-of-the-art weapons systems, its allied militaries come under pressure to follow suit or modernize their forces enough to maintain interoperability with the U.S. military. The U.S. military's adoption of network-centric warfare and its emphasis on jointness drive allied militaries to train their forces about the new ways of fighting lest they have difficulties working with the new U.S. forces.

The MND's *Defense Reform 2020 Basic Plan* notes that "the Korean military faces the requirement to transform into a futuristic force structure because of revolutionary changes in the war-fighting paradigm triggered by the development of information-science technology."³⁰ To effectively prepare for the future warfare, the MND is emphasizing the concepts of "jointness" and Network Centric Warfare, the very core concepts highlighted by the U.S. military transformation. A majority of force improvements envisioned by the Defense Reform 2020 are driven by these concepts. The Korean military is, for example, slated to acquire the following: satellites, airborne early warning control system, C4I, K series battle tanks, *Aegis* ships, F-15K/F-X fighters, aerial refueling aircraft, and precision guided missiles.³¹ These changes are driven by the agreement that Seoul's and Washington's militaries made in 2003: "the ROK will develop and transform its own military capabilities in reference to US military transformation."³²

South Korea had a high level of entrapment fear when the

29. It is quite plausible that the twin fears were exacerbated by the Bush administration's policies of unilateralism and preemption. J. J. Suh, "Transforming the US-Korea Alliance: Changes in Strategy, Military and Bases," *Pacific Focus*, vol. 24, No. 1 (April, 2009) pp. 61-81.

30. MND, *Kukpanggaehyök kibon'gyehoik* (2009-2020), June 26, 2009, p. 3.

31. *Ibid.*, p. 16.

32. Joint Communiqué, 35th Annual US-ROK Security Consultative Meeting, Seoul, November 17, 2003.

Bush administration asked Seoul to contribute to the wars in Iraq and Afghanistan. Its fear was brought home when a Korean man, Kim Sŏnil, was kidnapped and executed in Iraq in 2004. But it was the military transformation and its attendant alliance transformation that created a serious debate about entrapment. As the U.S. military was being transformed into rapid deployment forces, some feared that the “strategic flexibility” adopted by the U.S.-ROK alliance could allow U.S. forces deployed in Korea to be deployed to other places, such as China, dragging South Korea into a conflict it did not desire.³³

At the same time, South Korea’s abandonment fear is increasing as the alliance goes through a transformation. Wartime operational control is scheduled to be returned to the ROKA by 2012, and the Combined Forces Command (CFC) to be disbanded by the same time, according to the agreement signed in February 2007. The USFK is being moved away from frontline positions to rear areas—Osan and Daegu—while its overall size is shrinking.³⁴ These changes are creating a fear among some Koreans, particularly conservatives, that Washington might abandon Korea at a time of crisis.

The twin fears of entrapment and abandonment are visible in the defense reform plan for 2020. On the one hand, in order to reduce entrapment fears, the MND emphasizes the need to develop an independent defense capability: “it is now more urgent than anytime before that we must develop our own capability to defend ourselves in order to ensure our survival.”³⁵ To develop the capability, it is restructuring the ROKA’s command control system and acquiring the weapons systems necessary for the ROKA’s independent command control.

On the other hand, in order to address the abandonment fears, the ministry is working with the Pentagon to develop new coordinating mechanisms. It is also highlighting the need to

33. J. J. Suh, “Transforming the U.S.-Korea Alliance.”

34. Nam Chang-hee, “Realigning the U.S. Forces and South Korea’s Defense Reform 2020,” *Korean Journal of Defense Analysis*, vol. 19, No. 1 (2007), pp. 165-89.

35. *Kukkaanbowa kukpangbi*, p. 19.

make concentrated investments early on.³⁶ Its urgent call for an “early harvest” in reality translates into acquiring existing U.S. weapons systems such as C4I systems, AWACS (airborne warning and control system), and theater operation command control systems, because of the interoperability built into the Korean military.

Also, the alliance produced pressure on Korea to emulate the trend in the ally’s weapons R&D, since the Korean army needed to ensure that its weapons systems and doctrines remained interoperable with those of its ally in the future. Korean weapons researchers and officers, therefore, constantly looked to their American counterparts to keep up with their research. Just as the RMA was driving military R&D in the United States in the 1990s, it was also starting to affect Korea’s debate on the future of its arms industry. Specifically exploring Korea’s possible response to the American debate on the RMA, No Hun and I Chae-Uk argued that “it is *natural* that the Korean military follows American trends in the RMA and uses them as a base to explore Korea’s own way of RMA.”³⁷ Weapons research was developing a life of its own, being driven more by its own needs or by developments in the ally’s weapons research than by the actual security environment.

Conclusion

In the end, South Korea’s defense expenditure is determined by a combination of all the factors discussed in this article. North Korea’s strategic threat remains the overwhelming rationale, although it alone cannot explain the South’s disproportionately high spending relative to that of the North. Domestic interests

36. Ibid.

37. No Hun and I Chae-Uk, “Migunüi kunsakyori hyöksin’gaenyömgwa han’gukkunüi chöpkünbanghyang” (U.S. Military’s Concept of Revolution in Military Affairs and Korean Military’s Response), *Kukpangnonjip* (Quarterly Journal of Defense Analysis), vol. 42 (Summer, 1998), p. 219 (emphasis added).

go a long way toward accounting for the decision to purchase weapons systems whose strategic utility, vis-à-vis the North Korean military, is dubious. The alliance produces countervailing effects on Seoul's defense expenditure: It exerts a downward pressure by supplementing the ROKA, but it creates various interests that add to Seoul's spending. While South Korea's military expenditure probably represents the sum of these forces, the alliance figures prominently as a central factor that reflects the overall size of Seoul's military spending and the shape of its military transformation.³⁸

Furthermore, it is notable that the alliance's effects are expansionary in recent years. First, Seoul bears some of the direct and indirect cost of keeping U.S. forces in Korea, and its share of the burden has gone up in recent years. It has provided land, facilities, and services, as well as tax breaks, an indirect cost that amounted to \$773 million in 2000 alone. Beginning in 1991 when it signed the Special Measures Agreement, South Korea has increased its share of the direct cost from 107.3 billion won to 741.5 billion won in 2008.³⁹ If one adds the cost to relocate the USFK headquarters at Yongsan and consolidate other U.S. bases in Osan, Seoul's total burden quickly increases. As Seoul's capability grows, so does its contribution to the alliance cost. Furthermore, Washington's expenses go up even as Seoul's share of in-country costs increases because the U.S. military is going through an expensive transformation. Because the size of the alliance pie grows as a result, neither ally's increased contribution replaces or reduces the other's burden.

Second, not only is the size of the alliance pie expanding; the

38. In order to deal with the North's asymmetric capabilities, for example, the South's military is turning to U.S. systems such as *Patriot* missiles, SM-3, "Bunker Busters," and *Global Hawk*. Also, the kinds of weapons systems that the South's defense industries or importers favor are U.S. systems.

39. Li Jae-jun, "Nullyödallanün pangwibundamgüm...migun mamdaero ssodo 'soksumuch'aek'" (Defense Burden Share Asked to Increase . . . Can't Do Anything Even if USFK Spends It at Will), *Nokötnyusü*, September 1, 2008.

alliance's area of operation is growing. As early as 2000, the two allies agreed that "the alliance will serve to maintain peace and stability in Northeast Asia and the Asia-Pacific region as a whole even after the immediate threat to stability has receded on the Korean peninsula."⁴⁰ They have since extended their bilateral logistical support to a global level so that South Korea's military might provide logistical support to U.S. forces operating, for example, in Central Asia. They have also agreed to the "strategic flexibility of the U.S. forces based in South Korea," opening the door to the possibility that American forces could be projected from South Korea to anywhere outside the peninsula. The expansion has furthermore gotten the Korean military involved in such far-flung conflicts as in Iraq, Afghanistan, and Somalia.

Finally, Seoul's military spending expands at least partly to acquire capabilities necessary for out-of-area operations. The Force Improvement Plan (FIP), originally conceived to expand South Korean military capability in response to the perceived superiority of the North, in recent years has reflected a "strategic vision" that looks beyond the North-South rivalry to plan for an eventually unified Korea's regional role. Reflecting such a vision, the Ministry of National Defense is making efforts to develop a more "balanced" force, with increased emphasis on maritime and air capabilities that would find limited application in an intra-Korean conflict. The navy is acquiring a blue sea capability, while the air force is being equipped with longer-range aircraft and aerial refueling planes. While it is at least debatable that Korea has an immediate need to prepare for an eventual conflict with Japan or China, it is notable that Seoul's strategic vision requires mostly U.S. weapons systems. The MND favors American missiles, the air force is purchasing American F-15Ks, the army is repeating the U.S. argument about the "military transformation," and the navy is operating American-style *Aegis*-class destroyers.⁴¹ The ROKA is

40. Joint Communiqué, the 32nd Security Consultative Meeting, Seoul, September 21, 2000.

41. In 2002 the air force selected F-15K for its F-X fighter program rather than *Rafael*, *Eurofighter* and *Su-35*. The navy launched its first *Aegis*-class warship, *Sejong the Great*, in 2007 and will operate two more by 2012.

forging ahead toward “network-centric warfare.” So the alliance looms large even as South Korea busily prepares for strategic uncertainty in the region.

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