



Ploughshares into Swords: Economic Implications of South Korean Military Spending

by John Feffer

South Korea is currently engaged, once again, in a large-scale, expensive modernization of its military that aims to provide the country with a more robust and self-sufficient defense. The timing of this considerable increase in military spending might seem, at first glance, rather odd. Korean economic growth has been relatively anemic in the past few years. Meanwhile, the conventional military power of its chief adversary, North Korea, has steadily declined, and, until recently, South Korean leaders were committed to expanding inter-Korean cooperation. In another irony, the current Lee Myung-bak administration has simultaneously pushed a much harder line on North Korea and *reduced* the level of spending projected by the previous Roh Moo-hyun government.

Although the North Korean threat still serves to justify military spending in the South, other rationales have gained prominence, such as perceptions of a weakening U.S. security commitment, “unspecified” threats or insecurity in the region, and the technological requirements of the Revolution in Military Affairs (RMA). But another rationale has shaped South Korean military spending, and this rationale may become even more salient during this period of global economic crisis. Successive South Korean governments have argued that growing the military and localizing production is good for the economy.

On the face of it, this economic argument makes intuitive sense. Large-scale military spending accompanied South Korea’s spectacular rise to the commanding heights of the global economy. Indeed, the defense industry in some ways led the industrialization process. “We made tanks before we made cars,” recalls Kim Jong-dae, editor of *Diplomacy and Defense Focus*.¹ Today, the country’s military industry employs a little more than 20,000 peo-

ple directly and more than 50,000 indirectly, and it accounts for sales of roughly \$5.7 billion, including more than \$1 billion in exports in 2008.² These are not small figures. Yet, critics charge that government funds could be more profitably invested in civilian sectors of the economy to better utilize research and development (R&D) funds and contribute more to economic growth. The flip side of the economic argument—that a national economic slowdown intensified by a global recession necessitates a less ambitious military modernization—has generated a different set of controversies concerning the sequencing of defense reform and the allocation of scarce resources.

This paper will explore these various controversies, which have pitted academic against academic, government official against government official, ally against ally, and even army against navy and air force. It will examine the nature of South Korean military spending, the outlines of the debate around the current modernization, and the push and pull factors that drive budgetary increases. It will look at the domestic economic (and inevitably political) impact of more *won* going into the defense sector. And it will assess whether South Korea’s military transformation reflects and contributes to a regional arms race, which in turn has economic consequences of its own.

The paper will conclude that economic arguments for increased military spending are at best weak, at worst counterproductive, and, in general, irrelevant. For all the effort expended by economists and government officials to translate military spending into economic advantage, the primary rationales for the size and type of defense spending are noneconomic. Ultimately, then, the debate over South Korean military spending, whatever its economic implications, must take place at a different level of discourse.

Mr. Feffer’s paper is the twenty-second in KEI’s Academic Paper Series, which began in December 2006. As part of this program, KEI commissions and publishes 9 to 10 papers per year on original subjects of current interest to Korea watchers, which KEI distributes to over 2,000 government officials, think tank experts, and scholars around the United States and the world. A public discussion at KEI with the author generally follows publication. In February 2008, KEI published its first collection of KEI Academic Papers in *On Korea*, Volume 1. Volume 2 is forthcoming in February 2009. To order a hard copy of *On Korea*, please visit KEI’s website at www.keia.org.

Push Factors

When it comes to the economics of military spending—as with the economics of development overall—South Korea has been somewhat of an outlier. After many economists had concluded that high rates of military spending diverted precious investment resources in developing countries, South Korea proved to be an “interesting anomaly” as it devoted huge resources to the military and yet made almost unprecedented leaps in economic growth.³ After many economists had concluded that small countries could not profitably maintain indigenous arms manufacturing capabilities, South Korea again proved them wrong by becoming a leading arms-exporting nation. Just as it deliberately “got the prices wrong” on economic development, in Alice Amsden’s memorable phrase, South Korea also seemed to get the prices wrong on military development, at least as it related to the economy.⁴

From nearly its inception as a country, South Korea has devoted a significant portion of government spending to the military. In the mid-1970s, after devoting roughly 4 percent of gross national product to defense spending since 1963, the government increased that share to 6.3 percent (in 1976) and continued at levels of about 5 percent until the late 1980s. Throughout this period, defense absorbed roughly one-third of government expenditures.⁵ After 1988, when defense expenditures came in at 4.2 percent of gross domestic product, the percentage steadily declined through the 1990s, reaching 2.5 percent in 2006 (*Figure 1*).⁶ Despite this declining percentage, however, South Korea’s expanding economy guaranteed larger and larger shares for the defense sector (*Figure 2*), with an overall 81 percent increase in military spending from 1999 to 2007 (44 percent increase in inflation-adjusted dollars).⁷

The latest modernization plan, launched by the Roh Moo-hyun administration in 2006, consisted of several interlocking proposals. Among these, the Korean government proposed to:

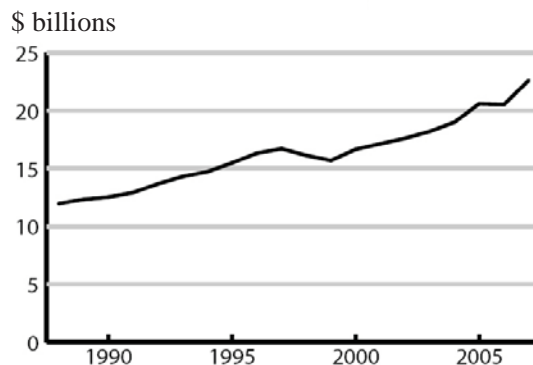
- Increase significantly its military spending—by approximately 10 percent a year between 2008 and 2020—with a focus on “force improvement projects”;
- Reduce military manpower by approximately 25 percent by 2020;
- Localize more arms production and take advantage of “spin-on” technologies;⁸ and
- Shift budget priorities from the army to the navy and air force in order to bolster rapid-response capabilities.

Figure 1: Military Spending by the Republic of Korea, 1961–2006, percentage of gross domestic product



Source: “SIPRI Military Expenditure Database,” Stockholm International Peace Research Institute, 14 January 2009.

Figure 2: Military Budget of the Republic of Korea, 1988–2007, in constant 2005 U.S. dollars, billions



Source: “SIPRI Military Expenditure Database,” Stockholm International Peace Research Institute, 14 January 2009.

The domestic factors behind these changes often came with economic justifications. For instance, advocates of the dramatic spending increases pointed to the decline in GDP percentage devoted to military spending in the 1990s and argued that this had resulted in an insufficiently equipped and trained military.⁹ A second domestic push factor was technology. The RMA, which applied the latest information and communication technologies to the security sphere, first swept through the Pentagon and subsequently through the armies of U.S. allies. As a leader in information technology (IT) and communications, South Korea was well placed to initiate this RMA, which it did under Kim Dae-jung (and continued under Roh Moo-hyun). It relied on spin-on innovations coming from these sectors—as well as heavy machinery, shipbuilding, transportation, and aerospace—to upgrade its military capabilities.¹⁰ A third imperative was demographics. The South Korean army could count on approximately 400,000 draft-age young men annually from 1977 to 2003. Because of Korea’s falling birthrate, the number was expected to drop to 317,000 in 2008 and

233,000 by 2025.¹¹ This stark reality informed the Defense Reform 2020 directive to reduce Korean military manpower from its level of nearly 700,000 soldiers in 2005 to 500,000 by 2020.¹²

To address these issues of insufficiency, technology, and demographics, the Korean defense reform proposed significantly higher spending on new high-tech equipment, which would simultaneously compensate for lower military manpower, correct the downward trajectory of overall military spending as a percentage of GDP, and transform capabilities in the direction of RMA. The new capabilities, concentrated in the navy and air force, were dazzling in many respects: a blue-water navy with the first Aegis-equipped destroyers, SM-6 ship-to-air missiles, AWACS aircraft, new F-15K fighters, and Global Hawk unmanned aerial vehicles. These capabilities did not come cheaply. One Aegis-equipped destroyer alone cost the Korean government approximately \$1 billion.

The focus on the navy and air force was intentional. “When he was elected [as] president, Roh Moo-hyun and his staff came up with an overall assessment,” remembers Moon Chung-in, who served in the Roh administration.

We discovered that the force structure was extremely backward. Ground forces counted for 70–80 percent of combat forces. The air force and navy had minimal force. In terms of the threat assessment, Roh Moo-hyun thought that the conventional threat from North Korea could be managed. But he was concerned about future strategic uncertainty in Northeast Asia.¹³

Regardless of the rationale, this interservice competition was a key driver of higher military spending.

The Defense Reform 2020 plan was not implemented quite as planned. Not surprisingly, the army resisted the cutbacks in manpower and the preferential treatment accorded the navy and air force. Conservatives wanted to refocus on the North Korean threat rather than on regional insecurity. Critics complained that the Roh government based its projections on the unlikely prospect of GDP growth continuing at a 7 percent rate,¹⁴ and the Korea Institute for Defense Analyses (KIDA) recommended reducing budget increases on the front end in favor of greater increases down the line.¹⁵ One side claimed that the increases were not sufficient for “true military self-reliance.”¹⁶ The other side—progressive groups outside the administration and the Ministry of Planning and Budget from within—complained that the military spending increases were too high.¹⁷

In the end, economics proved decisive. Roh, on discovering that there simply were not enough funds to cover his proposed changes, reduced the average increases from roughly 10 percent annually to roughly 8 percent in 2006 (however, the increases rose to 8.8 percent in 2007 and 2008).¹⁸ Lee Myung-bak, on taking power, reduced the 2009 budget figure further to 7.5 percent, with at least a partial restoration of emphasis on the army to counter the North Korean threat.¹⁹ The global financial crisis, in depressing South Korean growth rates even more, may contribute to these downward pressures.²⁰

Pull Factors

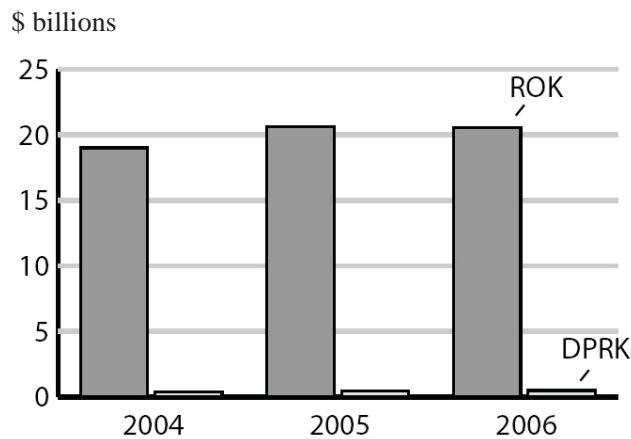
The external pull factor that has traditionally served as the rationale for increases in South Korean military spending is North Korea—though actual military increases rarely corresponded to specific improvements in North Korean capabilities. Nevertheless, the country that once could match South Korea in spending and capabilities was but a shadow of itself by the 1990s.

Even though it continued to allocate a large percentage of government spending to the military (somewhere between 14 percent and 33 percent, depending on whether you listen to Pyongyang or Washington) and even though its defense budget has been rising in absolute terms (to around \$470 million in 2006),²¹ North Korea has simply not been able to keep up (*Figure 3*). A country spending approximately half a billion dollars on defense each year simply cannot compete with one spending more than \$20 billion. Indeed, it has been evident since the late 1990s that “the South is far superior to the North in military as well as overall capabilities,” which a focus on bean counting (numbers of soldiers, numbers of tanks) often obscures.²² Moreover, whereas North Korea might have been able to count on allies to make up the difference in capabilities in the 1970s and 1980s, those allies shifted into neutral in the 1990s—at least on the issue of supporting any North Korean military offensive.²³ In addition to the decline in North Korea’s conventional capabilities, the two Koreas began an intensive process of rapprochement in the late 1990s. By 2004, South Korea stopped labeling North Korea as its “main enemy” in its defense white papers. And the Roh administration launched its Defense Reform 2020 plan “amid expectations that the North Korean military threat would be decreased further.”²⁴

Even under Roh Moo-hyun North Korea retained a measure of threat. In its 2006 white paper, the Korean government argued that “North Korea’s conventional forces, its nuclear test, weapons of mass destruction and the forward deployment of troops are a serious threat to

our security.”²⁵ South Korean military officials worried about North Korea’s “asymmetrical capabilities,” namely weapons of mass destruction and artillery pieces within range of Seoul.²⁶ And the Lee administration, with its traditional view of North Korea, has amplified the rhetoric on the importance of combat readiness.²⁷

Figure 3: Comparison of Military Spending in the Republic Korea and in the Democratic People’s Republic of Korea, 2004–06, in U.S. dollars, billions



Source: “SIPRI Military Expenditure Database,” Stockholm International Peace Research Institute, 14 January 2009; Yonhap News Agency.

But neither North Korea’s declining capabilities under the two Kims, nor rapprochement under Roh, nor more aggressive rhetoric under Lee appear to have had the direct effect on the levels of South Korean military spending that one might expect from the Cold War dynamic on the Korean peninsula. South Korean spending went up in the first two cases—and most dramatically at precisely the time of greatest rapprochement—and moderated in the last case. To understand the dynamics of South Korean military spending, we must look to other external factors.

Chief among these has been the United States. Significant spikes in South Korean military spending have occurred three times in South Korean history, each one corresponding with perceived or actual changes in U.S. defense posture in the region. The first, Park Chung-hee’s emphasis on a self-reliant defense, came in the wake of U.S. troop reductions pushed through by President Richard M. Nixon in the early 1970s.²⁸ The second came at the end of the 1980s when Roh Tae-woo used similar language—the “Koreanization of Korean defense”—in response to U.S. military transformation at the end of the Cold War.²⁹ Finally, the efforts by Kim Dae-jung and particularly Roh Moo-hyun have represented a third wave in Korean military spending, again a modernization effort in response to U.S. global force transformation.

In this most recent modernization, the drawdown of U.S. troops, the relocation of U.S. bases, the removal of the U.S. trip wire, and the handover of wartime military control—changes largely planned since the 1990s but accelerated during the tenure of Secretary of Defense Donald Rumsfeld—all contributed to intensifying fears of entanglement prominent among Roh Moo-hyun supporters and raising fears of abandonment.³⁰ South Korean officials began to look into acquiring many if not all of the high-tech capabilities provided by the United States in order to fill the anticipated gap. As military analyst Hamm Taik-young points out, the traditional “division of labor [was] between U.S. software and Korean hardware.”³¹ So, South Korea rushed to acquire surveillance and command, control, computers, communications, and intelligence (C4I) capabilities. But in the alliance relationship, the United States has also traditionally provided naval and air force power, while South Korea has concentrated on the army.³² So, in its modernization, South Korea also began to beef up naval and air power (KDX-III, F-15K), and army firepower (self-propelled artillery).³³ The shift in wartime military control created additional anxieties that U.S. forces—such as battle groups—would be either unavailable or delayed if requested by South Korea in an emergency.³⁴ This anxiety persisted despite arguments that, although the shift in wartime control would weaken alliance cohesion, “it would not necessarily trigger a reduction and withdrawal of American forces.”³⁵ Gen. Walter Sharp’s recent reassurances about U.S. commitments and capabilities did little to assuage these anxieties since Washington is simultaneously planning to transfer 40 Apache helicopters from South Korea to Afghanistan, forcing Seoul to consider additional helicopter purchases to compensate for the loss.³⁶

The United States influenced South Korean military spending in other ways as well. There are the costs of the alliance in general (South Korea will pay 760 billion *won* in 2009 for joint operations and will increase its share each year until 2013) and the ongoing base relocation in particular (South Korea will pay 5.59 trillion *won* for the Yongsan relocation while the United States will provide 4.4 trillion *won*). Then there is the cost of maintaining the interoperability of allied forces through the import of U.S. military goods. In 2007, South Korea bought about \$900 million worth of arms, 95 percent of which came from the United States.³⁷ This figure will likely grow as the U.S. Congress recently upgraded South Korea’s military procurement status to the level of Australia, New Zealand, Japan, and NATO members.

The United States has used interoperability as a way to influence South Korea’s purchasing decisions, for example, twisting arms to persuade South Korea to purchase

Boeing F-15Ks rather than French Rafales or Russian Sukhoi Su-35s.³⁸ Also, as the United States upgrades its forces in line with RMA, South Korea has no choice but to do the same, for the dance partner who fails to follow the lead will eventually be exchanged for another. These overall alliance costs fall into the category of “asset specificity,” namely the capabilities that have built up over the course of the U.S.-ROK military alliance and that require continual funding to sustain.³⁹ Also part of the economic equation is the large amount of money that United States Forces Korea has directly contributed, through purchasing, to the Korean economy.

North Korea and the United States are not the only external factors behind South Korean military spending. Most controversial are the “unspecified threats.” At least with North Korea and the United States, the drivers of military spending increases provide some target figures: balancing North Korea’s defense spending or capabilities, compensating for the loss of U.S. troops or technology. Unspecified threats—like countering terrorism, protecting sea lanes for commercial shipping, or preparing for potential conflicts with China or Japan—form an open-ended category. “This is the problem,” says Suh Choo-suk of KIDA. “How much sufficiency do we need to face unspecified threats?” According to Kim Jong-dae, some conservatives within Korean society have grander ambitions: ““Why are we only thinking about North Korea, why don’t we become a superpower?” they ask. That acts as a reason for developing the air force and navy.”

Domestic Impact of Military Spending

A battle has raged in the academic literature for the better part of 50 years over the economic impact of military spending. Those who advocate the advantages of military spending focus on the boost to employment, the contribution to infrastructure development, and the effect of scientific and technological spin-offs on the civilian economy. Those who focus on the disadvantages point to the way the military establishment monopolizes capital and robs the private sector of additional opportunities to grow.

These are not, of course, simply academic questions. If military spending is a drain on the overall economy, the policy imperative would be to shift government funds toward civilian investment. While some early studies emphasized the economic advantages of military spending, more recent studies at an international and U.S. level suggest otherwise.⁴⁰ For instance, according to a 1996 International Monetary Fund report, changes in military spending ratios would lead to rather dramatic increases in per capita output (14 percent increase in the case of Asia,

for instance).⁴¹ Several studies in the United States, although assessing a very different kind of economy, come to a similar conclusion. Davis and Ward, for instance, conclude that cuts in military spending would lead to direct increases in GNP.⁴² Pollin and Garrett-Peltier conclude that a billion dollars in government spending in the military sector produces the lowest number of jobs relative to comparable investments in mass transit, education, or health care.⁴³

South Korea, too, has no shortage of studies. Some show a positive relationship between government investment in the economy and overall economic performance—economic growth, after all, took place during a period of large military budgets. KIDA, for instance, argues that a significant share of defense spending has contributed to value-added economic growth.⁴⁴ Others, like Park Kun Young, assert that there is no significant relationship.⁴⁵ Heo Uk has argued that, even if there is no positive relationship, a shift from military to nonmilitary expenditures would stimulate economic growth because nonmilitary government expenditures produce a net positive gain.⁴⁶ Similarly, Park Ju-hyun’s research suggests that both government (nonmilitary) and private R&D investments have greater positive impact on the economy than military R&D (*Table 1*).⁴⁷ Hamm Taik-young has dismissed the past economic advantages of South Korean military spending by pointing out that “the alleged economic benefits of armament occurred only when the ROK received considerable U.S. military and economic aid.”⁴⁸ Finally, some studies assert that military spending has very specific negative effects within South Korea, such as excessive investment in the chemical industry in late 1970s, greater waste and inefficiency, inflationary pressures, a ratcheting up of debt through foreign purchases, and an increase in the tax burden at the expense of the savings rate.⁴⁹

Table 1: Contribution of Various Sectors to a Country’s Economy

Classification	Gov’t	Private	Defense	Subtotal
National income	6.17	6.56	3.43	16.16
Total factor productivity	38.20	40.60	21.20	100.00

Source: Park Ju-Hyun et al., “Economic Effects of Investment in Defense R&D,” in *The Study of Defense Policy* (Seoul: KIDA, 2003), 135–59.

These are not academic questions in South Korea, as key policy institutions are involved in the debate. KIDA has conducted studies that demonstrate the various economic virtues of military spending, demonstrating, for instance, that military investment produces slightly more

jobs than the industry average.⁵⁰ (Table 2) At the same time, KIDA studies have also shown that, if the Korean government were to increase military spending to exercise full control of its defense, the country would lose 1 trillion won in opportunity costs over five years because money would go to an industry that is less productive in creating jobs and adding value.⁵¹ The National Assembly Budget Committee has argued the opposite, namely that import substitution in the defense sector saved more than 6 trillion won from 1990 to 2001 but that “defense spending from 1980 to 2004 had a negative rather than positive effect on economic growth, because excessive import inducement aggravated the trade balance.”⁵² The LG Economic Research Institute, in a 1998 study, concluded that a reduction in military spending, and troop levels, would ultimately have a positive effect on growth and employment.⁵³ And a more recent and comprehensive business analysis of defense industries argues that the defense sector provides considerably less value-added per capita than the industry average.⁵⁴

Table 2: Effect of Defense Spending on Production and Employment

Classification	Manufacturing	Industry average	National defense
Production inducement coefficient	1.959	1.659	1.709
Value-added inducement coefficient	0.627	0.714	0.764
Employment inducement coefficient	14.4	20.1	21.0

Source: Park Jae-ok, “Analysis of Defense Sector Contribution to Economic and Social Development” (Seoul: KIDA, 2 July 2008).

Central to any self-sufficient military is an indigenous capacity to produce arms. The Park Chung-hee regime stressed the importance of heavy industry, whether ships or jet fighters, in building up the technological self-sufficiency of the country and reducing reliance on outside actors. This was equal parts national pride, strategic military thinking, and a belief in the positive interactions between the military and civilian economies (through spin-on and spin-off effects). In the U.S. context, economic benefits are usually expressed through spin-off: namely, the technologies developed by the military then revolutionize the civilian sector (such as the Internet). But in Korea, as in Japan, the emphasis has been on spin-on: namely, the contributions that a developed civilian sector can have on the military (such as sophisticated communications technology). There have been some spin-offs in Korea, such as the kimchi refrigerator that took advantage of imported Russia military technology.⁵⁵ With spin-ons, however, the Korean defense industry has leveraged the know-how and resource base of already powerful firms

specializing in IT, electronics, shipbuilding, machine tools, and so on to turn ploughshares into swords.⁵⁶

Now, after government assistance helped the defense industry through the difficult years when capacity rates were even lower than they are today and several firms went out of business, Korean firms make a range of products.⁵⁷ These include the K-1 tank, the KDX destroyer, surface-to-air missile systems, short-range ballistic missiles, and the K-9 howitzer. Between 2001 and 2007, when the Korean government focused investments in the IT sector, localization rates in defense sectors connected to IT and telecommunication rose from 72 percent to 85 percent. A similar rate increase took place in precision guidance weapons (56 percent to 74 percent during the same period), but there was a slight decline in the rate for aerospace.⁵⁸

Still, after enormous effort, South Korea is not self-sufficient in arms production, except in a couple areas (small arms, ammunition, and armored vehicles). “Even after more than 30 years of significant public and private inputs in infrastructure and technology, South Korea still possesses only limited capacities for self-reliant arms production,” conclude military analysts Richard A. Bitzinger and Mikyoung Kim. “In general, indigenous arms production has turned out to be neither technologically feasible nor cost-effective.”⁵⁹ But that hasn’t stopped South Korea (and many other countries) from pursuing this chimera.⁶⁰

Indigenous arms production, however, does not simply reduce the costs of foreign inputs. It can also boost the economy through exports, a particular focus of Roh Moo-hyun.⁶¹ In 2006, Korean foreign military sales amounted to \$250 million. By 2008, the figure had grown to more than \$1 billion.⁶² These sales have included aircraft to Turkey, Indonesia, and the Philippines as well as warships to Malaysia. Arms exports allow manufacturers to reap greater economies of scale, gain necessary hard currency, and increase employment in the defense sector. They also raise the capacity of Korean defense industries, which operated between 1999 and 2004 at a roughly 50 percent rate compared with an industry average around the world of roughly 80 percent.⁶³

Finally, there is the political impact of the industry. Under Park Chung-hee, the military’s importance was not only in external deterrence but internal regime legitimacy. As a cornerstone of state power, the Korean military helped maintain the machinery of the coercive state.⁶⁴ But with democratization, defense spending became more externally focused even as it remained concentrated in a few businesses.⁶⁵ Today there is some disagree-

ment over whether a proper military-industrial complex has emerged in South Korea. “Defense contractors have very limited influence,” Moon Chung-in argues. Instead of responding to pressure from the defense industry, Kim Jong-dae says, “the Korean air force thinks about demand while reading U.S. catalogs.”⁶⁶ But military analyst Suh Jae-jung identifies the emergence of a “dense network between the government, the military, and the defense industry” that depends on government largesse, is staffed via a revolving door (326 retired officers working in defense industries in the mid-1990s), and is facilitated by research centers both inside and outside academia.⁶⁷ All of this created a strong constituency that lobbied for more military spending, particularly if it meant lucrative contracts that relied on indigenous spin-on technologies.

Arms Race in Northeast Asia?

A final economic consideration is the potential for a regional arms race. Increased military spending in South Korea, if it generates reciprocal increases in Chinese or Japanese spending, could lead in turn to additional defense outlays in the future.

Reports of an arms race in Asia are nothing new. “Asia is in the midst of its most peaceful period of the 20th century,” *The Economist* editorialized in 1993, “yet its nations are continuing to arm themselves at an alarming rate.”⁶⁸ At that time, because he didn’t discern either a rapid rate of acquisition or a reciprocal dynamic, military analyst Desmond Ball refused to label these increased military spending levels an arms race. At the same time, he acknowledged that enhancements of airpower could trigger “unanticipated and undesired arms acquisition competitions” and acquisition of advanced submarine and antiship missiles could undermine regional security.⁶⁹ Fifteen years later, former Australian deputy secretary of defense Richard Smith came to roughly the same conclusion about the current round of military spending increases in the region.⁷⁰

And yet, South Korean military spending does seem to be affected by more than just the shadow of the North Korean threat, the anxiety of U.S. withdrawal, and a handful of domestic economic factors. In a conversation I had with KIDA researchers, they emphasized that South Korea had to recognize that its neighbors (United States, Japan, China, Russia) were modernizing military forces and expanding regional influence.⁷¹ Japan has already made progress toward acquiring a “normal” military posture, which might one day soon translate into a removal of the 1 percent-of-GDP ceiling on its defense budget.⁷² China’s military modernization, although not directed at South Korea, also forms the basis of future anxieties for

South Korea. Although South Korea has usually emphasized the role military modernization plays in protecting commerce and in “peaceful diplomacy,” it has occasionally let slip some underlying concerns. For instance, at a ceremony for the launch of a new 7,600-ton Aegis destroyer, Roh Moo-hyun declared, “At the present time, Northeast Asia is still in an arms race, and we cannot just sit back and watch.” He was well aware that Japan had already deployed five Aegis destroyers and that China was building four 7,000-ton class destroyers.⁷³

Although South Korea is a relatively small country and its government claims that its modernization is strictly defensive in scope, Defense Reform 2020 has nevertheless raised some eyebrows in turn. North Korea, of course, has denounced the South Korean military buildup.⁷⁴ But Japan, too, has worried about the spending patterns of its putative ally. Japanese analyst Sugio Takahashi has written:

If the ROK develops its navy and air force without expansion of the strategic horizons from Northeast Asia to the Asia-Pacific, the operation area of the modernized navy and air force will be assumed to be in Northeast Asia. This will cause concern in Japan that these modernized forces are actually deployed “against” Japan.⁷⁵

With an eye on Korea’s largest neighbor, military analyst Nam Chang-hee has suggested “reducing and maintaining the numbers of the ROK ground forces for defense-only purposes” in order not to “raise any fears on China’s part regarding territorial conflict over the contested area (Gando) in Manchuria with a future unified Korea.”⁷⁶

Conclusion: What Kind of Modernization?

As a result of the global economic crisis, government budgets around the world are shrinking. In Northeast Asia, however, the military portions of the governments seem to be shrink-proof. “Japan, Taiwan and South Korea could resist major cuts in defense spending in the short term due to commitments to ‘recapitalizing their militaries,’” according to Richard Bitzinger.⁷⁷ China, too, is better positioned to maintain the pace of its military spending because it, alone among industrial powers, is still anticipating significant, though reduced, growth next year.⁷⁸

The South Korean economy during the fourth quarter of 2008 contracted for the first time (on a year-on-year basis) since the onset of the Asian financial crisis. Yet Defense Reform 2020 is proceeding with only modest changes. Lee Myung-bak has already signaled that he is

taking an “economy first” approach by focusing on job creation in the defense sector, boosting arms exports, substituting imports for domestic production (such as buying used Apache helicopters), trimming unnecessary spending, and extending the timeline to 2025.⁷⁹ The Defense Ministry also plans to increase the number of conscripts doing alternative service in industrial firms, build new apartments for service members, and apply new Green guidelines to military construction projects.⁸⁰ As such, South Korea is edging toward a form of military Keynesianism: using defense subsidies to keep factories humming. The government is likely to employ other economic arguments as well, such as asserting that military spending produces the stable environment necessary—particularly at a time of more aggressive North Korean rhetoric—for attracting foreign direct investment.⁸¹

The evidence, however, that government investments in the military—at a time of plenty or paucity—are the best growth stimulus is quite weak. Military investments produce jobs, generate some spin-off technologies, and take advantage of some spin-on developments. But other government investments contribute more to economic growth. Localization, meanwhile, does not make strict economic sense, given the opportunity costs, although establishing indigenous production for certain capacities, particularly in the software field, is reasonable.⁸² Arms exports, although they reduce the costs of localization through economies of scale and boosting the operating capacity of defense sector manufacturing, put South Korea in a difficult position of muscling into a highly competitive field. Arms exports often come with strings—such as reciprocal purchases. Moreover given the arms race dynamic in the region—and spending has taken place at a faster clip now than 15 years ago (*Table 3*)—government investments even into potentially lucrative arms export sectors can be counterproductive. And armaments, as the United States discovered with al Qaeda, have a tricky habit of ending up in the hands of those against whom increased military budgets are intended to protect.

Ultimately, however, these arguments based on economic rationales are irrelevant. The Korean government has ignored economic feasibility in the past when allocating money to the military. The push for localization has more to do with nationalism than economic necessity (and echoes North Korea’s vain efforts to achieve food self-sufficiency). Many of the specifically economic arguments—such as the necessity of devoting a certain percentage of the GDP to the military—are arbitrary.⁸³ Government subsidies of the military, as evidenced by the “national security exception” in free trade agreements, lie outside the realm of so-called economic laws.⁸⁴

If the economic arguments for increasing military spending are either weak, counterproductive, or irrelevant, why should South Korea continue with Defense Reform 2020, particularly at a time of global economic crisis? Countering North Korea doesn’t require such an upgrade. Replacing U.S. capabilities is sensible—if indeed the United States plans to pull out—but only defers the question: what are all the new weapons for? South Korea cannot compete with Japan, China, or Russia militarily—certain aspirations to superpower status notwithstanding—and its own modernization plans may only encourage greater spending among its neighbors.

From the perspective of comparative advantage, then, South Korea should focus on its “soft power,” which has garnered accolades from both within and outside the country.⁸⁵ And it should focus government investments not on the military but on the “green” stimulus that Lee Myung-bak has launched. South Korean diplomacy and green technology: such smart power makes more economic—and geopolitical—sense than preparing to fight last century’s wars or helping to create the future insecurity that Defense Reform 2020 was meant to address.

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Table 3: Defense Spending in Selected Countries, 1989, 1994, 2001, and 2006, in constant 2005 U.S. dollars, billions, and increase or decrease in spending (in percentage) when two years are compared

Year	Republic of Korea		Japan		China		Russia		United States	
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
1989	12,325	19	38,395	9	12,282	19	202,543	-82	479,060	-21
1994	14,713		42,051		14,614		36,613		377,867	
2001	17,133	20	44,275	-1	28,010	85	21,245	47	344,932	48
2006	20,523		43,666		51,864		31,181		511,187	

Source: “SIPRI Military Expenditure Database,” Stockholm International Peace Research Institute, 14 January 2009.

statistical information); and Park Kun Young, Kim Jong Dae, and Kim Taeho for reading and commenting on an earlier draft.

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Endnotes

¹ Kim Jong-dae, editor of *Diplomacy and Defense Focus*, interview with author, October 2008, Seoul.

² Pak Jae-ok and Kim Sang-ho, KIDA, interview with author, October 2008, Seoul. Export figure from Byun Duk-kun, "South Korean Weapons Sales Top 1bn US Dollars in 2008," *Yonhap*, 29 December 2008.

³ Moon Chung-in and Hyun In-taek, "Muddling through Security, Growth and Welfare: The Political Economy of Defense Spending in South Korea," in *Defense, Welfare and Growth*, ed. Steve Chan and Alex Mintz (London: Routledge, 1992), 137.

⁴ Alice Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989).

⁵ Moon Chung-in and Hyun Jin-young, "Revolution in Military Affairs and the Defense Industry in South Korea," *Security Challenge* (December 2008).

⁶ "SIPRI Military Expenditure Database," Stockholm International Peace Research Institute, 14 January 2009, <http://milexdata.sipri.org/result.php4>.

⁷ *Ibid.*; between 1999 and 2007, Korean military expenditures increased from 13,337 *won* to 24,200 *won*, an 81 percent increase; measured in constant 2005 dollars, the increase was 44 percent (\$15,689 to \$22,623).

⁸ Spin-on technologies are discussed in more detail in the section on the domestic impact of military spending.

⁹ Cha Young-koo, lieutenant general (ret.), interview with author, October 2008, Seoul. The general, who negotiated with the United States over the change in the status of forces, argued that South Korean military spending should be 3 percent of GDP. In 2008, defense spending amounted to 2.75 percent of GDP, according to the National Assembly Budget Office.

¹⁰ Moon Chung-in and Lee Jin-Young, "Revolution in Military Affairs and the Defense Industry in South Korea," *Security Challenge* (December 2008): 12-3 (manuscript).

¹¹ Bruce Bennett, *A Brief Analysis of the Republic of Korea's Defense Reform Plan* (Santa Monica, Calif.: RAND, 2006), 3.

¹² Manpower now stands at approximately 650,000; Jung Sung-ki, "S. Korea Strengthens Army Buildup," *Defense News*, 15 December 2008.

¹³ Moon Chung-in, interview with author, October 2008, Seoul.

¹⁴ Jung, "S. Korea Strengthens Army Buildup."

¹⁵ Kim Ji-hyun, "Defense Reform Likely to Suffer Setbacks due to Budget Cuts," *Korea Herald*, 26 November 2008, <http://news.nate.com/service/news/ShellView.asp?ArticleID=2008112600555766118&LinkID=95>.

¹⁶ Bruce Bennett, "North Korea Threats Require Deterrence, Reconciliation," *Korea Herald*, 13 March 2008.

¹⁷ Moon Chung-in, interview with author, October 2008, Seoul.

¹⁸ Nam Chang-hee, "Realigning the U.S. Forces and South Korea's Defense Reform 2020," *Korean Journal of Defense Analysis* (Spring 2007): 182. Budget figures for 2008 and 2009 come from National Assembly Budget Office, "2008 Budget Bill Analysis."

¹⁹ "Seoul Aims for 7.5 percent rise in Defense Spending," *Korea Herald*, 1 October 2008. On the army question, the Lee administration also devoted resources to the army in preparation for the collapse of North Korea: 2,000 advanced wheeled armored vehicles deployed in 2013 as part of rapid-response brigade designed to "play a leading role in advancing into North Korea, neutralizing key enemy targets, stabilizing North Korean society in captured areas or securing humanitarian aid." In contrast, it has proposed to cut back on the production of K-2 army main battle tanks. See Jung, "S. Korea Strengthens Army Buildup." Other Army upgrades in the pipeline include the K21 infantry fighting vehicle (in 2009), a new multiple launch rocket system (in 2013), and a new shrapnel bullet-firing rifle, XK-11.

²⁰ Ahn Choong Yong, "South Korea: Wary of Another Financial Crisis," *Global Asia*, Winter 2008. Like many articles on the impact of the global economic crisis on the South Korean economy, this one doesn't mention military spending.

²¹ *Vantage Point*, April 2008, 29.

²² Hamm Taik-young, *Arming the Two Koreas* (London: Routledge, 1999), 166. According to a recent U.S. intelligence report, as many as one-quarter of conscription-age young men in North Korea will be unfit for service because of deficiencies caused by their famine-year experience; see "Malnutrition Reducing N. Korea's Military Pool," *Yonhap*, January 22, 2009.

²³ Suh Jae-Jung, *Power, Interest, and Identity in Military Alliances* (New York: Palgrave MacMillan, 2007), 57.

²⁴ Jung, "S. Korea Strengthens Army Buildup."

²⁵ Kurt Achin, "South Korean Defense Report Cites 'Serious' North Korea Threat," *Voice of America*, 29 December 2006, www.globalsecurity.org/wmd/library/news/rok/2006/rok-061229-voa01.htm.

²⁶ Thom Shanker, "North Korea Still a Threat, South Korean Tells Gates," *New York Times*, 8 November 2007, www.nytimes.com/2007/11/08/world/asia/08korea.html.

²⁷ Sam Kim, "Top Brass Share Views on Combat Readiness against North Korea: Commander," *Yonhap*, 8 January 2009.

²⁸ Han Yong Sup, "Analyzing South Korea's Defense Reform 2020," *Korean Journal of Defense Analysis* (Spring 2006).

²⁹ Moon and Lee, op. cit. p. 5

³⁰ See, for example, Daniel Sneider, "Strategic Abandonment: Alliance Relations in Northeast Asia in the Post-Iraq Era," in *Joint U.S.-Korea Academic Studies: Toward Sustainable Economic & Security Relations in East Asia: U.S. & ROK Policy Options 18* (2008).

³¹ Hamm Taik-young, "The Self-Reliant National Defense of South Korea and the Future of the U.S.-ROK Alliance," NAPS-NET Policy Forum Online, 19 June 2006.

³² Kim Jong-dae, editor of *Diplomacy and Defense Focus*, interview with author, October 2008, Seoul.

³³ Cho Seong-ryol of INSS, interview with author, October 2008, Seoul.

³⁴ Cha Young-koo, lieutenant general (ret.), interview with author, October 2008, Seoul.

³⁵ Moon Chung-in, *KOIS Newsletter*, 4 September 2006.

³⁶ Kim Ji-Hyun, "Allies Face Test as They Attempt to Bolster Ties," *Korea Herald*, 11 February, 2009.

³⁷ "Seoul Seeks to Delay Large Defense Projects amid Economic Downturn," *Asia Pulse*, 25 November 2008, www.zibb.com/article/4446477/Seoul+seeks+to+delay+large+defense+projects+a+mid+economic+downturn; these arms import expenditures are not included in the SIPRI figures on defense outlays quoted throughout this paper.

³⁸ John Feffer, "Supporting Arms," in *Challenging Conventional Wisdom*, ed. Tamar Gabelnick and Rachel Stohl (Washington, D.C.: Federation of American Scientists; Washington, D.C.: Center for Defense Information, 2002), 41.

³⁹ Suh, *Power, Interest, and Identity in Military Alliances*, 13–14.

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⁴¹ Malcolm Knight, Norman Loayza, and Delano Villanueva, "The Peace Dividend: Military Spending Cuts and Economic Growth," World Bank Policy Research Working Paper no. 1577 (Washington, D.C.: World Bank, 1996).

⁴² See, for instance, Michael Ward and David Davis, "Sizing Up the Peace Dividend," *American Political Science Review* (September 1992). Their essay lists a number of other studies that come to the same conclusion.

⁴³ Robert Pollin and Heidi Garrett-Peltier, *The U.S. Employment Effects of Military and Domestic Spending Priorities* (Washington, D.C.: Institute for Policy Studies, October 2007).

⁴⁴ Moon and Hyun, "Muddling through Security, Growth and Welfare," 153.

⁴⁵ Park Kun, "Pouring New Wine into Fresh Wineskins: Defense Spending and Economic Growth in LDCs with Application to South Korea," *Journal of Peace Research* (February 1993).

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⁵² Gukhoeyesanjeongchaekcheo (National Assembly Budget Office), "Bangwisaneop jaejeongjichul seonggwawa gwaje: bangwisaneop wigiwa haeksimgunsaryeok haeoeuijondo simhwa," September 2008: 38, 32.

⁵³ Lee Byeong-geun and Yu Seung-gyeong, "Hanbando gunbi gamchukui gyeongjejeok hyogwa" (Seoul: LG Economic Research Institute, 1 November 1998).

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⁵⁵ Cho Seong-ryol, interview with author, October 2008, Seoul.

⁵⁶ Moon Chung-in, interview with author, October 2008, Seoul.

⁵⁷ Moon Chung-in, "The Political Economy of Defense Industrialization in Korea," *Journal of East Asian Affairs* (Fall 1991): 455.

⁵⁸ Moon and Lee, op. cit., p. 15.

⁵⁹ Richard A. Bitzinger and Mikyoung Kim, "Why Do Small States Produce Arms? The Case of South Korea," *Korean Journal of Defense Analysis* (Fall 2005): 191.

⁶⁰ "If the calculation of the inefficiencies of defense industries were to be the generally accepted basis for national planning, far fewer industrial countries would attempt to compete in the production of certain types of advanced military technologies," writes Hyun-Koon Yoon, in "National Security: Defense, Development and Self-Reliance through Defense Industrialization: The Case of South Korea" (unpublished dissertation, University of Maryland, 1991), 299.

⁶¹ Moon Chung-in, interview with author, October 2008, Seoul; Roh Moo-hyun “sees the military sector and military industry as an instrument for enhancing export. He has an economic interpretation of defense industry,” Moon observed. “Lee Myung-Bak has an instrumental view.”

⁶² South Korea aspires to boost exports to \$3 billion a year by 2013 and break into the top 10 leading exporters, but this will likely run up against the current economic crisis. Byun, “South Korean Weapons Sales Top 1bn US Dollars in 2008.”

⁶³ Moon and Lee, op. cit., p. 18; In Jung Sung-ki, “S. Korean Arms Industry Emerges as Global Power,” 16 July 2007, Jung put current defense sector capacity at 57 percent compared with an industry average of 78 percent.

⁶⁴ Hamm, *Arming the Two Koreas*.

⁶⁵ The top 10 military contractors accounted for more than three-quarters of defense contracts in 2006. Moon and Lee, op. cit., p. 17.

⁶⁶ Kim Jong-dae, editor of *Diplomacy and Defense Focus*, interview with author, October 2008, Seoul.

⁶⁷ Suh, *Power, Interest, and Identity in Military Alliances*, 139–41.

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⁷² John Feffer, “Japan: The Price of Normalcy,” *Japan Focus*, 10 January 2009, www.japanfocus.org/_John_Feffer-Japan_The_Price_of_Normalcy.

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⁸⁰ Jung Sung-ki, “Defense Exports of \$1.3 Billion Planned,” *The Korea Times*, 31 December, 2008.

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⁸² Hamm, in “The Self-Reliant National Defense of South Korea and the Future of the U.S.-ROK Alliance,” puts forward a sensible recommendation: “Focus on software rather than hardware in the application of RMA and military transformation in the ROK defense reform, that is, more brain than brawn. The reform should emphasize capabilities in strategic planning, crisis management, and operational art, while developing ‘reasonably sufficient’ information capability.”

⁸³ Although it devoted only 1 percent or less of GDP to the military, Japan still managed to create the strongest army in Asia and one of the most powerful in the world.

⁸⁴ According to the “national security exception” in free trade agreements, governments are allowed to subsidize military production if it is necessary to national security; see John Feffer, “Militarization in the Age of Globalization,” *Foreign Policy in Focus*, 6 November 2001, www.fpif.org/commentary/0111mic.html.

⁸⁵ See, for example, “Soft Power in Asia: Results of a 2008 Multinational Survey of Public Opinion” (Chicago: Chicago Council on Global Affairs and the East Asia Institute, 2008), 12; see also Im Hyug-baeg, “How Korea Could Become a Regional Power in Northeast Asia: Building a Northeast Asian Triad,” Working paper 08-4 (Washington, D.C.: U.S.-Korea Institute at SAIS, October 2008).

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